

**Implementing Physical Rehabilitation Services
into Comprehensive Fistula
and Maternity Care:**

A Training Guide for Health Care Workers



Acknowledgments

This training guide represents the culmination of the authors' work in building capacity for women's and pelvic health physiotherapy services in low-income, low-resource settings over the past decade. The content herein was informed by the authors' varied field experiences at clinic sites in the Democratic Republic of Congo (DRC), Rwanda, Uganda, Ethiopia, Nigeria, Niger and India, as well as a combined 35 years of clinical expertise in treating a U.S.-based population. A special acknowledgment of partner sites in the DRC is necessary, as these efforts were first piloted at HEAL Africa Hospital in Goma, DRC and refined and further developed at the Panzi General Reference Hospital in Bukavu, DRC. This work was completed with the generous support of USAID, EngenderHealth, Fistula Care Plus, as well as the authors' contributions of time and financial resources over a number of years.

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Introduction

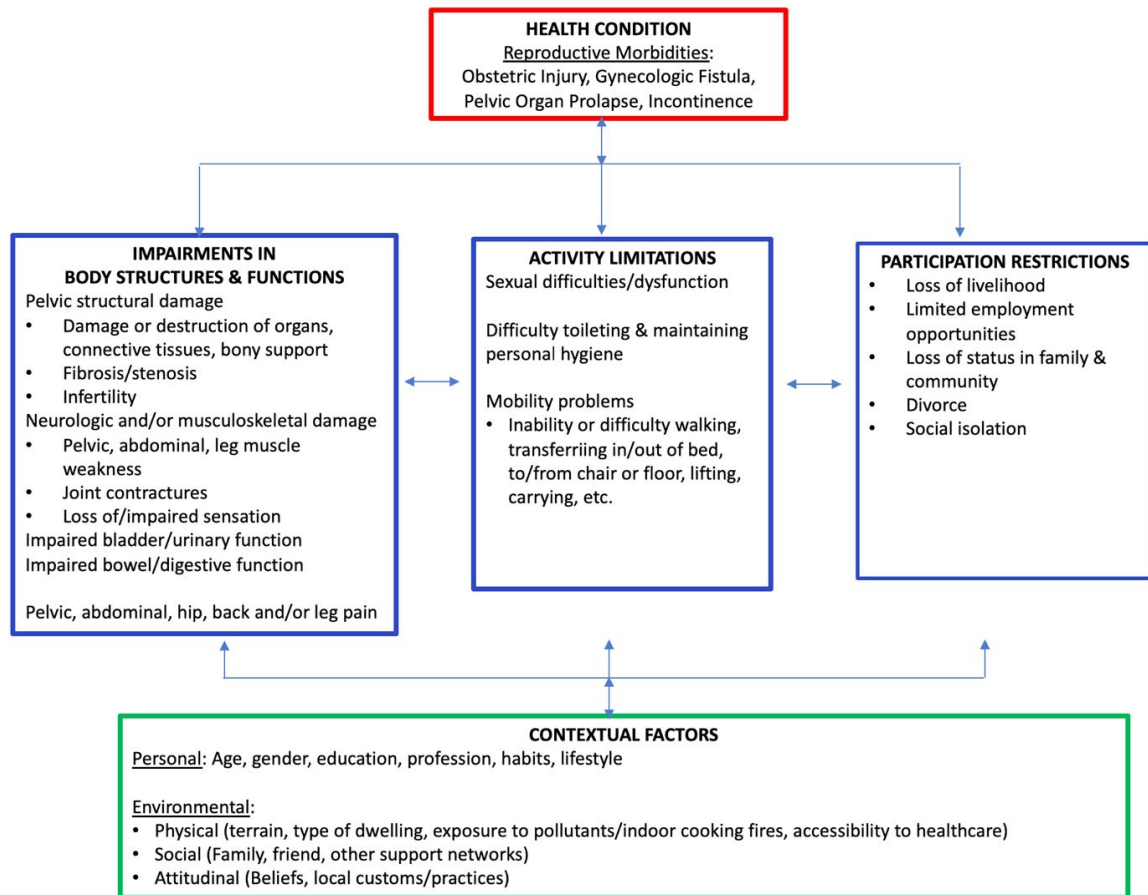
According to the World Health Organization (WHO), an estimated 1 billion people are living with a disability and in need of rehabilitation services; the majority of which live in low- and middle-income countries.^{1,2} Investment in human resources for health in the area of rehabilitation services has historically been lacking. In fact, rehabilitation was omitted from the agendas of the Millennium Development Goals and subsequent Sustainable Development Goals.^{3,4} This low priority is further evidenced by Gupta and colleagues in their reporting that in much of Sub-Saharan Africa and in parts of Southeast Asia, there are only 0.5 rehabilitation providers for every 10,000 people.⁵ By contrast, the WHO reports an estimated 2.5 physicians per 10,000 in the same region.⁶

While the Sustainable Development Goals highlight the need for social services targeted toward those living with disability, as well as for comprehensive reproductive health services, no health goals specifically address mitigating the burden of disability by building a health-related rehabilitation workforce.^{4,7} Rehab 2030 represents a WHO Call for Action that highlights the needs, costs and benefits of investing in rehabilitation services, to minimize the impact of disability on individuals and populations.⁸ However, the important need for services aimed at maternal and pelvic health conditions are neither specified as a priority, nor are any women's health organizations represented in the final report.

Physiotherapy is one of several disciplines that fall under the umbrella term of 'rehabilitation services.' A recent systematic analysis underlines the health and economic benefits of rehabilitation services, both exclusive physiotherapy programs, as well as multidisciplinary programs with a physiotherapy component.⁹ The authors point to an urgent and ongoing need for economic evaluations of rehabilitation services, especially in low-resource settings. Citing evidence of cost-effectiveness, the authors lend support to "the view that health-related rehabilitation services should have similar priority to conventional medical treatments in health care settings."⁹

There are several models offering a conceptual framework to understand the relationship between disease or injury and resulting disability.¹⁰⁻¹² The figure on the following page applies these concepts to female reproductive morbidities specifically, illustrating the physical findings and impacts of such findings in the lives of women, their families and communities. The impairments, activity limitations, and participation restrictions listed in each box are examples of how a health condition relates to these aspects of function. These are inter-related to each other and may also contribute to other health conditions.

FIG 1. The International Classification of Functioning Disability and Health Applied to Reproductive Morbidities: A Conceptual Framework¹⁰



Research supports the use of physiotherapy services to address the physical impairments and functional limitations described in this framework, and suggests that investment in physiotherapy program development will yield meaningful improvements in the burden of disability.¹³⁻¹⁷ The opportunity exists to develop strong programs that take all of this into consideration and to embrace a woman-centered approach to rehabilitation services. Partnership with organizations and providers will contribute to the research on economic impact, burden, and clinical care of women and girls with respect to maternal and reproductive health-associated impairment and disability.

Several additional key points should be considered with respect to the development of physiotherapy services targeting maternal, pelvic and sexual health concerns for women

and girls in a low-resource setting. The heavy burden of female reproductive morbidities in such low-resource settings is well-documented. The disability associated with these morbidities conveys a financial impact that perpetuates cycles of poverty and gender inequity.^{18,19}

While global efforts have been focused on improving maternal mortality rates, similar efforts have not been directed to address the health needs of women who survive and sustain obstetric injury or a related maternal morbidity. Increasingly, women are living with conditions, such as gynecologic fistula, pelvic organ prolapse, urinary incontinence and other pelvic floor and musculoskeletal disorders. These conditions variably impact women's ability to carry out daily tasks and participate in society at large. Importantly, many of these conditions are amenable to physiotherapy (or physiotherapy-informed) treatment.

Investment in quality rehabilitation services minimizes the burden of disability associated with a health condition and may offer several cost benefits, including: decreased length of hospital stay; improved short and long-term health outcomes, reducing the need for expensive medical procedures or repeat surgeries; and optimized mobility and function, enabling women to meaningfully (and financially) contribute to her family and community.⁹

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Contextual Statement

This training guide emphasizes rehabilitation principles and physiotherapy techniques specific to women's health. However, we recognize that there are currently not enough skilled physiotherapists to provide individual treatment to every woman with a maternal or female pelvic health condition. Thus, we encourage a multi-disciplinary approach to treatment that places each woman at the center of her care, in order for her to achieve her best possible health outcome.

Every member of the health care team - program managers, hospital administrators, physicians, nurses, midwives, social workers, community health workers, physiotherapists and other rehabilitation professionals, and the patient, herself - can benefit from the information in this training guide. This is not meant as a replacement for quality clinical education, coursework or licensure programs, but as an adjunct to guide health workers interested in building rehabilitation services targeting women's health conditions. Sections 1-3 offer principles of rehabilitation and information related to basic science, anatomy and function, and have been written at an appropriate literacy level so that these sections may be used directly for patient and community health education. Sections 4 and 5 offer assessment and treatment techniques intended for use by those health workers who have graduated from recognized health training programs, such as university or technical schools.

This training guide is designed as a foundational resource to guide capacity building and program development specifically in women's health physiotherapy in low resource settings, and thus evaluation and treatment techniques were designed based on the minimum equipment necessary to successfully implement these services. Content will be revised regularly.

We recognize variations in patient populations across settings, as well as availability of material, financial, and human resources. Case examples, suggested treatments and referral pathways are provided. However, each site and each practitioner are encouraged to adapt these models according to current needs, resources, and level of training.

The authors of this training guide may be contacted by institutions or hospitals that would like to receive a visiting pelvic health physiotherapist to work with designated health care staff (physiotherapists, gynecologists, nurses, midwives, etc.) to build knowledge, skills and capacity for pelvic rehabilitation and physiotherapy. Appendix 3 includes a site readiness survey and a list of minimum necessary equipment for pelvic floor physiotherapy integration. Please include the completed survey in your correspondence. info@themamas.world

Physiotherapy in the Context of Women's Health

The World Confederation for Physical Therapy (WCPT) is the global governing body for the profession. In defining the breadth of knowledge and scope of physiotherapy practice, the WCPT's position paper highlights the profession's broad role in restoring and maintaining mobility, function and independence and emphasizes treatment of the whole person and not just the symptomatic body part.^{1,2} Physiotherapists identify and treat physical impairments and functional limitations associated with disease, injury or illness. These may include muscle weakness, tightness or contractures of joints, muscles and connective tissues, pain, or difficulties with mobility or self-care.

In presenting the role of physiotherapy in the context of gynecologic fistula and maternity care, it is important to understand the physiotherapist's scope and value as an integral member of the health care team. This may be in the context of fistula care exclusively, in the broader context of gynecologic and obstetric care, or in general neurological and musculoskeletal health. Physiotherapists can work across a spectrum from wellness and prevention services, to treatment of an acute injury, to working with those who now must live with a permanent disability.

Skilled physiotherapists optimize the function of healthy tissues. For example, in the context of prenatal care, they can work to improve the function of the pelvic and abdominal muscles and address spinal, hip and pelvic mobility to facilitate a better labor experience. They may also teach new mothers to rehabilitate their own bodies after delivery to improve strength, restore function and prevent injury.

Skilled physiotherapists also treat acute and chronic injury. In the case of gynecologic fistula, there are varying degrees of tissue damage, from mild tissue damage to complete destruction of the pelvic tissues - nerves, muscles, organs, and connective tissues. In these cases, the physiotherapist can work to restore full or partial function, or she may offer alternative movement strategies to compensate for impaired muscle, joint or tissue function.

In considering an individual with a severe disability, a physiotherapy plan of care may reduce this burden and improve function and quality of life. Disability management might include teaching compensatory movement strategies, training on the use of assistive devices, or working with families and caregivers, so that they may learn the best methods for facilitating independence and promoting inclusion in family and community life.

Every physical body in any context can have a health condition that presents with a range of impairments and functional limitations. In fact, statistics indicate that most people – including those reading this training guide – will experience some type of short or long term disability in their lifetimes that may benefit from skilled physiotherapy and rehabilitation services.³

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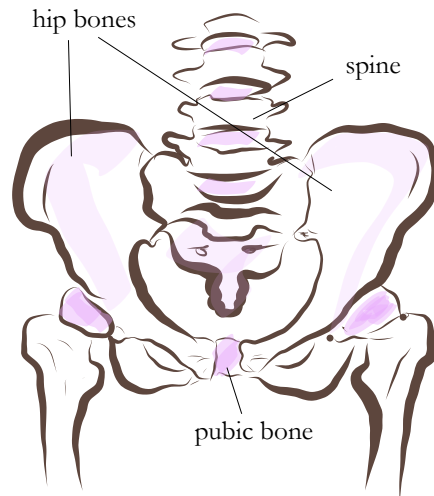
Section 1: Pelvic Anatomy + Function

A review of the body's systems and their relationship to women's health

This section provides an overview of female pelvic anatomy and physiology. A basic understanding of functional anatomy will serve as a foundation to better understand principles of rehabilitation and physiotherapy treatment techniques utilized for different women's health conditions. For health care workers with previous training in obstetrics and gynecology, some of this information may be a review. Note that this section was designed for health workers to use as patient education. Handouts may be reproduced in part or in full to provide education at the community or individual level.

Introduction to Female Pelvic Health

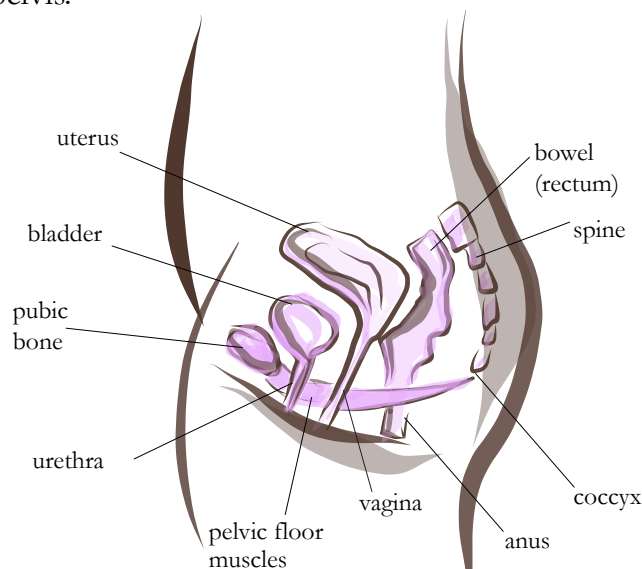
Many women's health problems affect the body structures and functions located in the pelvic area. It is important to understand healthy function of this area of the body, in order to better identify problems or dysfunctions. The information that follows provides an overview of female pelvic health and function. Concepts and terminology are introduced that are integral to the physical rehabilitation and restoration of pelvic health.



You can feel your hip bones by placing your hands just below your waist. The area under your hands and between your hip bones is the pelvic area.

What is the pelvic floor?

The pelvic floor includes the muscles, connective tissues (ligaments, tendons, fascia), blood vessels, and nerves that provide support to and aid in normal function of the pelvic organs. In women, the pelvic organs include the bladder, the uterus, and the rectum. The pelvic floor muscles, connective tissues and the pelvic organs are nested inside the bony pelvis.¹



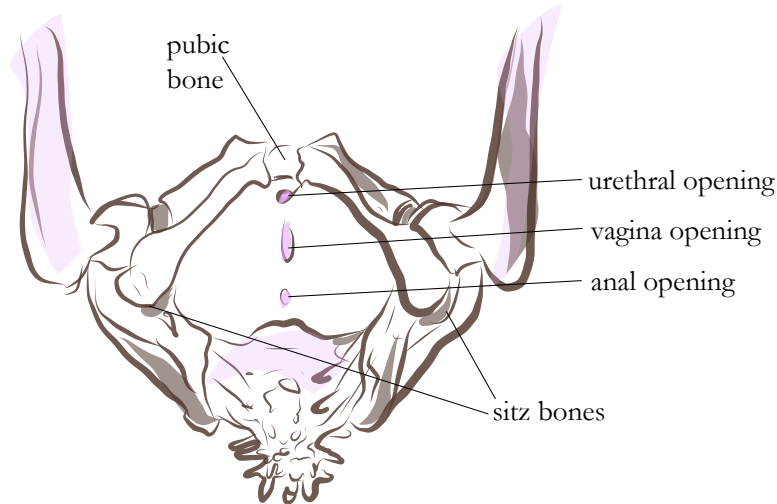
When these are healthy, we are able to control our bladder and remain continent (hold our urine), have healthy and regular bowel movements, and engage in pleasurable sexual activity. Problems in one or more of these structures can lead to difficulties with bladder or bowel control, low back, hip, pelvic or abdominal pain, and sexual problems.²⁻⁵

It is important to think about the pelvic floor when we think about bladder health, bowel health, and sexual health. Each of these components is a part of comprehensive female pelvic health.

Many women have not learned about the pelvic floor and how, with education and exercise, they can play an active role in establishing, maintaining and restoring their pelvic health.⁶⁻⁹ This section provides information for the health worker. All or part of this section may also serve as a tool for patient education. You may read this aloud, print as a handout or adapt to a flip chart to help women and girls understand their bodies and its functions.

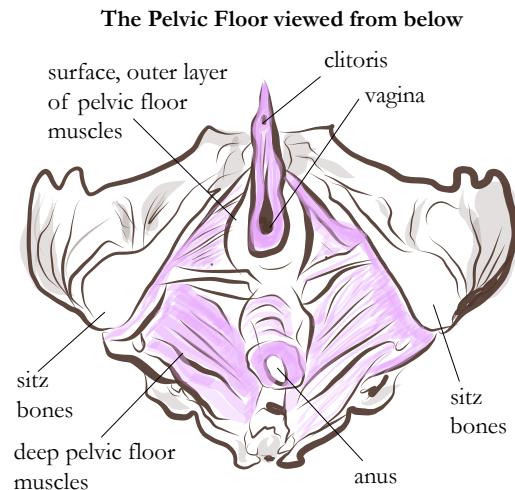
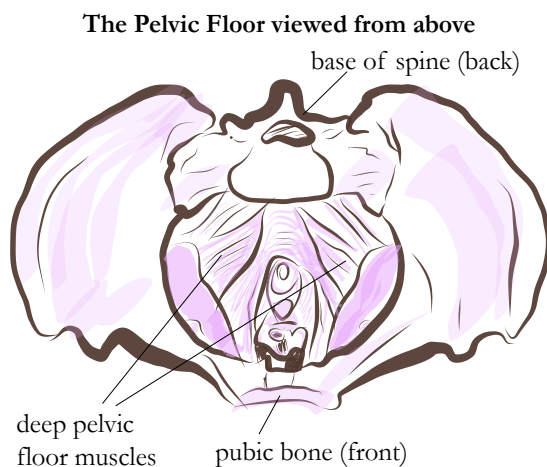
Pelvic floor muscles

The pelvic floor muscles are a group of muscles that attach to the pelvic bones - the pubic bone in the front, the tail bone in the back and the sitz bones on either side. There are 16 voluntary pelvic floor muscles in the female pelvis.¹⁰ It is not necessarily important to learn the anatomical names for each muscle, but rather to understand how they function together. For those who are interested, the name of the muscles and the anatomic landmarks are labeled in Appendix ¹.



There are 3 layers of pelvic floor muscles¹¹: From the inside to the outside, these include:

1. a deep, inner layer of muscles that are broad and fill the pelvis, forming the floor of the pelvic bowl;
2. a middle layer of muscles that contains circular-shaped sphincter muscles around the urethral opening
3. a surface, outer layer of smaller muscles



These muscles are postural muscles and are always working or ‘turned on.’ They give support to the pelvic organs, and prevent leakage of urine, gas or stool. When we go to the toilet to urinate or have a bowel movement, these muscles relax and lengthen fully to allow us to eliminate completely.¹¹

Pelvic Floor Function

When the pelvic floor is healthy and intact, it provides 4 major functions in the body¹¹:

1. **Support**: The pelvic floor provides support for the pelvic organs (bladder, uterus, rectum) against gravity and against anything that increases the load on our pelvis and in our abdomen. Activities such as lifting and carrying, pregnancy, and even coughing and sneezing put increased pressure or load on the pelvic floor; the pelvic floor muscles respond to this increase in pressure by contracting to support the body as it performs these tasks.
2. **Sphincter control**: The pelvic floor muscles also help to keep us continent, so that we do not leak urine, gas or stool (feces) as the bladder or rectum fills. Some of the pelvic floor muscles are circular-shaped muscles called sphincters. When we laugh, cough, sneeze or hold back gas, these sphincter muscles squeeze around the urethral and rectal openings to keep us from leaking.
3. **Stability**: The pelvic floor provides the body with stability, so that we can move and function in daily life. Every time we take a step, force is transferred from the ground upward and through the pelvis. Forces are also transferred from the upper body and trunk through the pelvis and down to the ground, such as when we lift or carry something.
4. **Sexual**: All of the tissues of the pelvic floor are involved in the female sexual response. The pelvic floor experiences an increase in blood flow during sexual arousal. The pelvic floor muscles contract during sexual activity to increase the sexual response. They contract strongly at the point of orgasm.¹¹

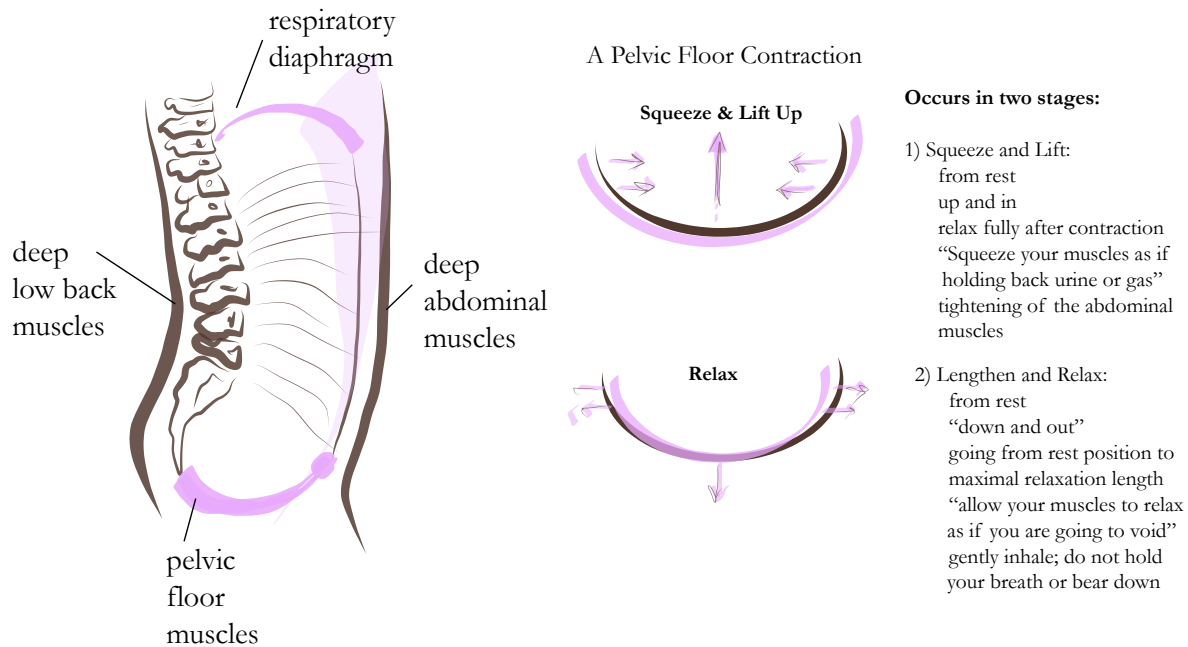
The next sections provide more information about the body’s systems and how they relate to the pelvic floor. These systems are:

- Pressure System
- Urinary System
- Digestive System
- Sexual Health & Reproductive System

The Pressure System

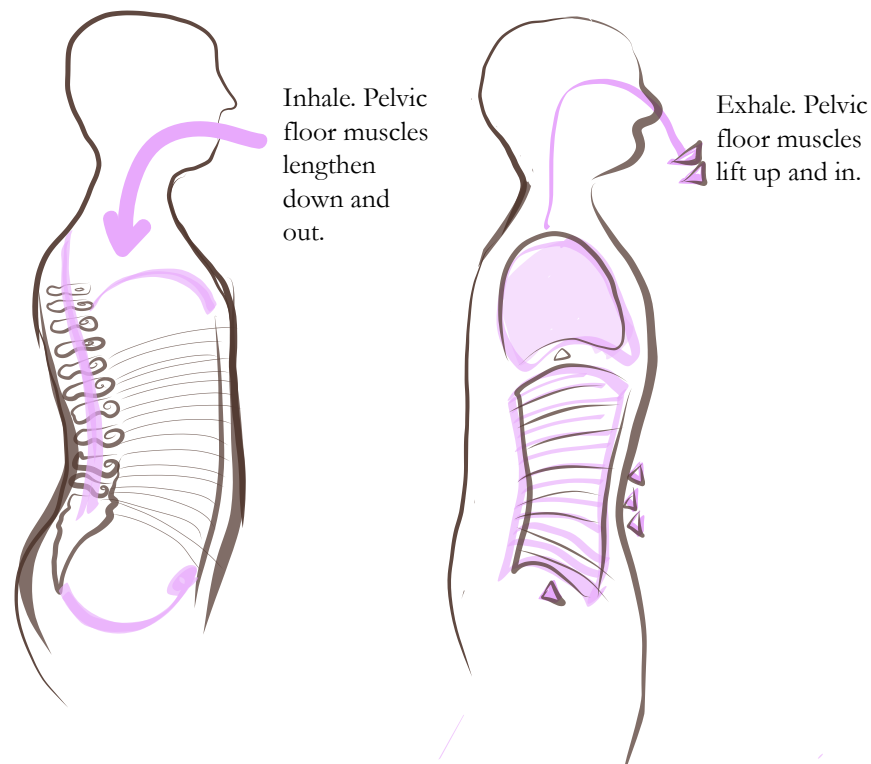
A normal contraction of the pelvic floor muscles closes the openings of the urethra, vagina and anus and lifts upwards to support the pelvic organs.¹ The tail bone moves towards the pubic bone, and a sensation of tension deep in the pelvis may be noted. On relaxation, these muscles lengthen. During urination, when having a bowel movement, and with labor and childbirth, these muscles actively lengthen. This ensures complete emptying of the bladder or bowel and allows for a vaginal delivery.¹¹ These muscles move up and down, as they contract and relax to meet the demands of our day-to-day activities.

The movement of the pelvic floor muscles is coordinated with the movement of 3 other muscles or muscle groups: the respiratory diaphragm, the deep abdominal muscles and the deep low back muscles.^{11,12} Together, they work as a team to give the body stability during movement and daily tasks. They do this by giving support to the organs and by helping to modulate or control pressures in the abdomen and pelvis. These muscles also contribute to healthy function of the other body systems - the urinary, digestive and reproductive systems.^{11,12}



What do we mean by pressure? Every time we cough, sneeze, laugh, lift, jump, raise our arms, move our legs, lie down, stand up, etc. ... this changes the pressure in the abdomen and pelvis. The body responds by contracting the core muscles just enough to meet the demands of the activity. This means, these muscles may contract a little or a lot, depending on how much the movement or activity increases the pressure in the abdomen and pelvis.

Let's consider our breath and how this is coordinated with the movement of the pelvic floor. When we inhale, the diaphragm descends and the pelvic floor lengthens. When we exhale, the diaphragm ascends and the pelvic floor rises.¹³ When we exercise the pelvic floor muscles, we can use this relationship to breathing: exhale, squeeze and lift ... inhale, relax and lengthen. Proper breathing and contraction of the core muscles modulates pressure and gives us functional strength to perform all of our daily activities.



What is pelvic floor dysfunction?

Pelvic floor dysfunction is very complex. But, it can be helpful to think about pelvic floor muscle dysfunction in this way: (1) muscles that are too tight or contracted OR (2) muscles that are too weak or overstretched.¹¹ Section 4 provides detailed information for trained health care professionals about how to examine the pelvic floor muscles to determine what may be causing problems in bladder, bowel, or sexual function.

These muscles, just like any other muscle in the body, may become weakened. Sometimes, after childbirth or prolonged and heavy work (such as carrying very heavy loads for long distances, farming/cultivating for long periods, etc.), the pelvic floor muscles become damaged, over-stretched and weakened. In this case, they may not be able to contract fully, and a woman may experience incontinence (leakage of urine). She may also experience low back, pelvic or abdominal pain with heavy work. The pelvic organs may also prolapse or drop/descend from their normal position.¹¹

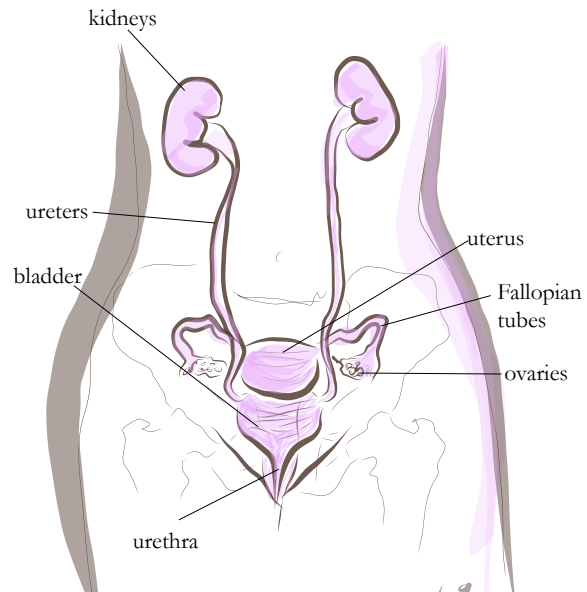
It is also possible for the pelvic floor muscles to have a muscle spasm, become very tight, contracted, and shortened. This may occur after childbirth, after pelvic or abdominal surgery, after a sexual assault, or may be related to other pelvic health conditions that can cause painful menstrual periods (endometriosis, fibroids, etc). In this case, a woman may experience pain or discomfort in the pelvis or abdomen or sexual pain or difficulties. Tight pelvic floor muscles also interfere with the body's ability to sense the urge to urinate, and a woman may complain of feeling a strong sense of urgency, complain of increased frequency (needing to urinate many, many times during the day and night), and difficulty completely emptying the bladder when urinating.¹¹

The Urinary System

The urinary system is responsible for filtering the blood, eliminating toxins and waste, and balancing the fluid in our bodies. The urinary system and its related structures function to create and expel (release) urine and to maintain continence, which means that we only release urine when appropriate and ready to do so.¹⁰

The organs and structures of the urinary system include:

- 2 kidneys
- 2 ureters
- Bladder
- Urethra
- Pelvic floor muscles
(including the sphincters that surround the urethra)^{1,10}



All of the blood in the body gets filtered through the kidneys many, many times throughout the day. The kidneys are always working to make sure the body gets rid of things it does not need, and to ensure we have just the right amount of blood and fluid in our bodies - not too much, not too little.¹⁰

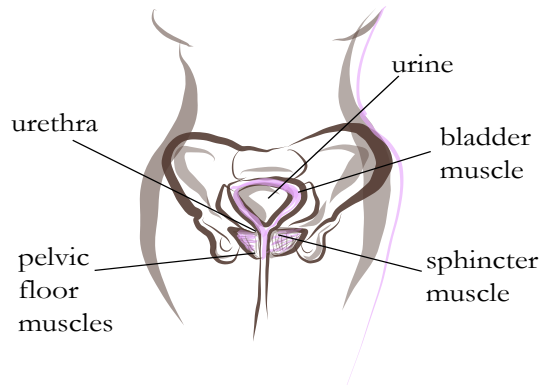
Blood enters the kidneys and passes through a complex filtration system to form urine. Once urine is formed, it moves out of the kidneys into the ureters. The ureters are tubes that carry urine to the bladder.¹⁰

Recall, the bladder is one of the pelvic organs, and is supported by the pelvic floor muscles. The bladder functions to store and release urine. It is a hollow, flexible organ and is surrounded by a muscle, called the detrusor. The bladder is constantly filling with urine, throughout the day and night. The bladder stretches as it fills with urine. During this storage phase, the detrusor (bladder muscle) relaxes.¹⁰

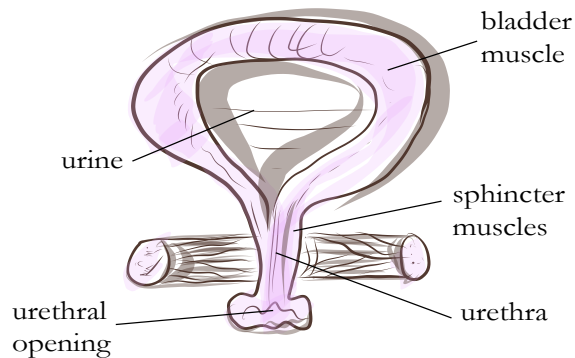
The urethra is a small tube that carries urine from the bladder to the urethral opening, where urine exits the body. The urethra is surrounded by a urethral sphincter muscle that squeezes around the urethra to compress it, so that urine does not leak while the bladder is filling. The other pelvic floor muscles also contract to assist in compressing the urethra. This allows us to maintain **continence** – the ability to retain (hold) urine in the bladder and to empty only when ready to do so.^{1,10}

As the bladder fills, it stretches and stretch sensors in the bladder give us a signal, felt as the urge to urinate. The first urge to urinate occurs when the bladder contains 150-200 ml of urine, and a very strong urge when it is near its capacity of 400-600 ml of urine.

Bladder Control System



Bladder and Schincter System



Normally, we can control this urge and decide when and where to urinate. When the bladder is full and we are ready to urinate, the detrusor (bladder muscle) contracts and squeezes around the bladder, and urine is released into the urethra. At the same time, the pelvic floor muscles relax to allow urine to pass. Once urination starts, this is a reflex that we do not voluntarily control.^{4,11}

But, if needed, we can interrupt this reflex by using our pelvic floor muscles to stop the flow of urine. It is not good practice to stop the flow of urine as a habit or exercise. Pelvic floor muscle exercises are best when your body is not trying to take care of its basic functions.

Summary & Patient Education

What is normal bladder function?^{1,10}

The bladder functions to store and release urine. The kidneys filter the blood, and in this process, produce urine, which moves through tubes, called ureters, that empty into the bladder. The urethra is the tube or opening that allows urine to pass outside the body. It is surrounded by muscles that help to keep us continent by supporting the bladder and urethra and assuring urine is released only when we are ready to do so.

The bladder is constantly filling with urine, throughout the day and night. The bladder stretches as it fills with urine. During this storage phase, the bladder muscle, called the detrusor, relaxes, and the sphincter muscles around the urethra contract. This allows us to maintain **continence** – the ability to retain (hold) urine in the bladder and to empty only when ready to do so.

As the bladder fills, it stretches and stretch sensors in the bladder wall give us a signal, felt as the urge to urinate. The first urge to urinate occurs when the bladder contains 150-200 ml of urine, and a very strong urge when it is near its capacity of 400-600 ml ounces of urine.



First urge
to urinate



Strong urge
to urinate

First urge
to urinate



Strong urge
to urinate



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Facts about Healthy Bladder Function:

Normal urinary frequency – the number of times you go to the toilet to urinate – is about 5-7 times during the daytime (in a 16-hour period).

During the day, you should be able to wait 2-4 hours between each time you urinate.

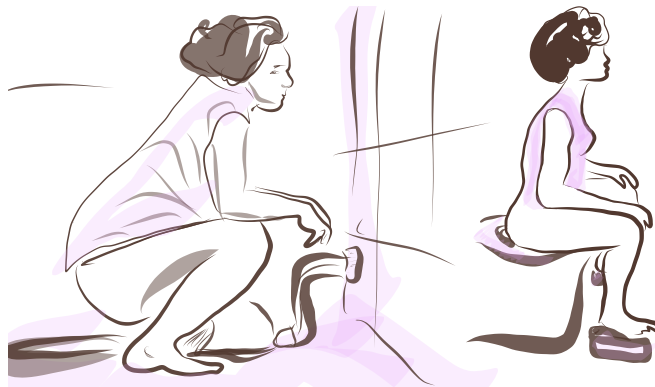
Healthy adults should be able to sleep for 6-8 hours, waking 0-2 times to urinate during the night.^{11,14}

Healthy Bladder Habits:

Relaxation during urination allows the bladder to completely empty.¹¹

Avoid pushing or straining, as this can contribute to or cause problems with the normal functioning of the pelvic floor.¹¹

When urinating, always squat fully when using a latrine or sit on the seat when using a western toilet. Do not hover above the toilet. This makes it difficult for the pelvic floor muscles to relax and may prevent the bladder from emptying completely.¹⁵



Avoid going to the toilet ‘just-in-case,’ or when you really don’t need to urinate. This will decrease your bladder’s capacity to store a normal amount of urine. If you are having the urge to urinate several times in one hour, you may try a bladder and fluid schedule to increase the amount of time you can hold your urine.

Stay hydrated by drinking enough fluids! In healthy people, feeling thirsty is a sign that the body needs water.¹⁶ The color of urine is also a good indication of whether you are drinking enough fluids. It should be a pale yellow with little to no odor. Dark yellow urine is a sign that you may be dehydrated. This can irritate your bladder and cause problems. Access to clean drinking water may be limited in some areas, and it may be necessary to boil water before drinking it. The body can also use water contained in juices, tea, coffee, or soda, as well as foods with a high-water content, such as certain fruits, soups, and meats. If you live in a very hot climate or are very physically active, you may need to increase your fluid intake to replace the water that is lost by sweating.¹⁶

The Digestive System

The digestive system is responsible for taking food and drink and changing it into smaller nutrients that our bodies can use for energy, growth and repair. It also rids the body of waste products that are eliminated every time we have a bowel movement.^{17,18}

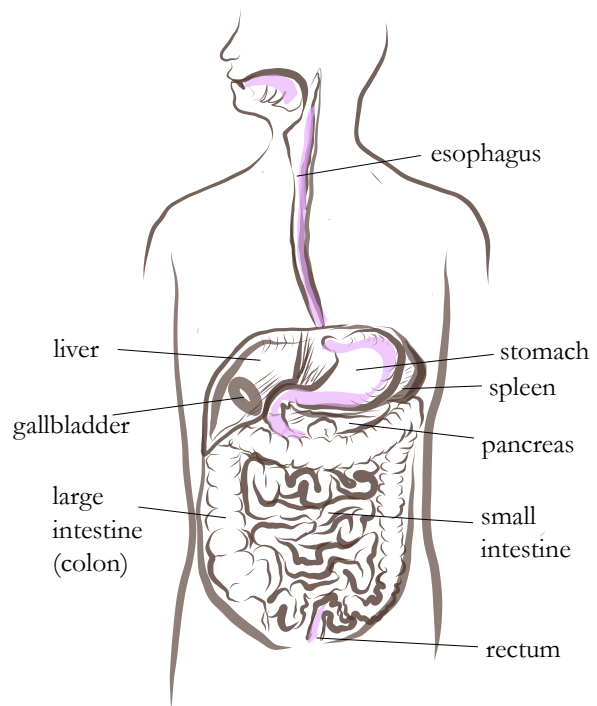
The digestive tract (or gastrointestinal tract) is a series of hollow organs that are joined together to form a long, winding tube from the mouth to the anus. The organs of the digestive tract include:

- Esophagus
- Stomach
- Small intestine
- Large intestine (Colon) & Rectum
- Anus

There is a layer of muscle around these organs that helps to move food and liquid through the digestive tract.

There are also 3 solid organs that aid in digestion. These are:

- Liver
- Gallbladder
- Pancreas



There are 6 basic functions of the digestive system:^{17,18}

Step 1: **Ingestion**

Ingestion, or putting food into our bodies, occurs every time we eat. When we chew our food, we break it down into small pieces, so that our bodies can begin to get the nutrients from it.

Step 2: **Propulsion**

The muscles that surround the digestive tract move food from one part of the digestive tract to the next. It begins with swallowing. When we swallow, food moves to the esophagus. The muscles around the esophagus contract and move the food to the stomach. From the stomach, food moves through the small intestine to the large intestine.

This movement is called peristalsis. The muscles that surround the digestive tract become active every time we eat, so that food moves from one part to the next. This is a reflex that we do not control.

Unused parts of food and body waste move to the rectum - the end of the large intestine. They collect there until ready to exit the body through the anus when we have a bowel movement.

Step 3: **Mechanical and chemical breakdown**

Mechanical and chemical breakdown turns food into small pieces so that we can take in its nutrients and energy. Mechanical breakdown means physically breaking food into smaller and smaller pieces. It begins with chewing food in our mouth and continues as we swallow and food moves through the digestive tract.

Once food is broken up into very small parts, special chemicals called enzymes break it into even smaller parts so that we can use the nutrients and energy. This is called chemical breakdown. This occurs in the stomach and small intestine.

The liver, gallbladder and pancreas make enzymes and digestive juices and send them into the small intestine to aid chemical breakdown.

Step 5: **Absorption**

Absorption is the process our bodies use to move nutrients and energy from the digestive tract into our bloodstream. The blood delivers these nutrients and energy to the rest of the body. Most absorption of nutrients and energy occurs in the small intestine.

Our bodies must also absorb the water we drink. This occurs in the large intestine.^{17,18}

Step 6: **Defecation**

Defecation is the body's way of getting rid of waste, including the parts of food that cannot be used for nutrients or energy. The parts of food that are not absorbed move through the large intestine, and feces, or stool is formed. The rectum is the end of the large intestine. As the rectum fills with feces, it is stretched. This stretch signals the urge to defecate (have a bowel movement).

When we sense the urge to defecate, our pelvic floor muscles, including the anal sphincter muscles, contract to keep feces in the rectum until we are ready to eliminate. When we decide we are ready and it is appropriate to have a bowel movement, these muscles relax and lengthen to allow feces (stool) to exit through the anus.¹⁷⁻¹⁹

What is bowel dysfunction?

Under normal circumstances, the process of digestion occurs without us thinking much about it. There is a wide range of normal bowel function, with typical frequency of bowel movements occurring 3 times per week up to 3 times per day. However, when the digestive system is not working right, complications can occur which disrupt our ability to have bowel movements at our normal frequency. When the pelvic floor muscles are not functioning properly, the most common bowel problems that occur are constipation and anal (or fecal) incontinence.²⁰

What is Constipation?

Constipation occurs when we have difficulty emptying the bowels and having a bowel movement. This can be caused by the inability of the pelvic floor muscles to relax to allow feces to pass through the anus to exit the body.²⁰ It can also occur if we do not drink enough water or eat enough fiber in our diet, and the stool is too hard to pass. When we experience constipation, we may have smaller or less frequent bowel movements, and we can experience abdominal pain and bloating.

What is Anal Incontinence?

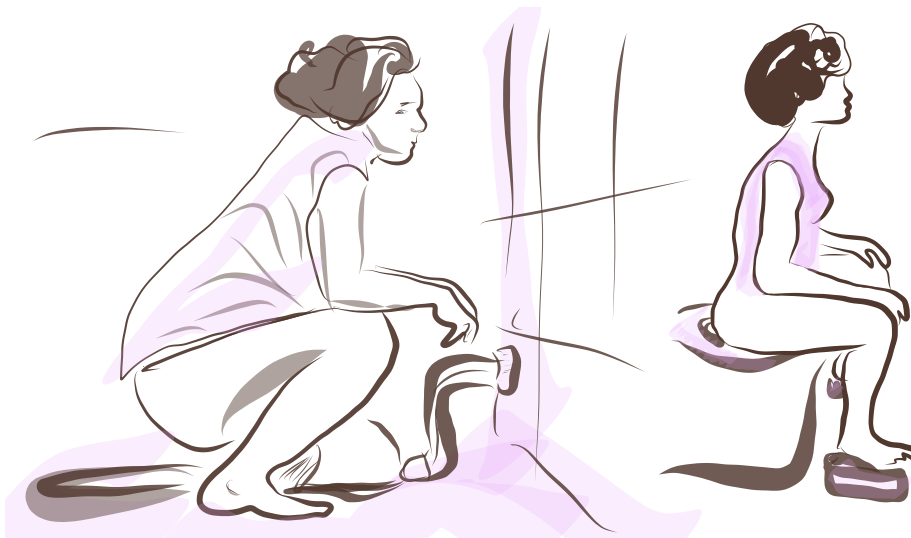
Anal incontinence refers to the unwanted loss of stool or gas from the anus when we do not want to have a bowel movement.²⁰ There are many factors that can cause anal incontinence. When the pelvic floor muscles, especially the external anal sphincter, are damaged or are not strong enough to keep the anal opening closed, feces can exit the anus without us being able to control it. Anal incontinence can also occur as a result of nerve damage, which can cause weakness in the pelvic floor muscles or limit our ability to sense the urge to have a bowel movement. We can also have anal incontinence related to scar tissue in the rectum, which limits the ability for the rectum to stretch and hold feces, resulting in loss of stool from the rectum.^{20,21} We are more likely to experience anal incontinence if we have diarrhea or loose watery stools, as it is harder for our muscles to control stool with a watery consistency. Some people may lose small amounts of feces, while others may lose large amounts, depending on the specific causes of their problems.

Facts About Bowel Function:

Normal bowel frequency - the number of times you go to the toilet to defecate- can be anywhere from 3 times per day to every 3 days.

Physical activity and exercise increase the muscle activity in your digestive tract and can improve bowel function.

Your posture and position on the toilet impacts your ability to have a bowel movement. Squatting on the toilet (either squatting over the latrine or elevating the legs with the feet supported if you are using a western toilet) helps the pelvic floor muscles relax and makes it easier to have a bowel movement.²²



Healthy Bowel Habits:

Stay hydrated by drinking enough fluids. Water is absorbed into the feces as it moves through the digestive tract. If we do not drink enough water, there is not enough water available to go into the feces, and we can have hard, difficult to pass stool, resulting in constipation. Access to clean drinking water may be limited in some areas, and it may be necessary to boil water before drinking it. The body can also use water contained in juices, tea, coffee, or soda, as well as foods with a high water content, such as certain fruits, soups, and meats.¹⁶

Eat foods with dietary fiber, such as fruits, vegetables, and whole grains to maintain healthy stool consistency.

Ensure fruits and vegetables are washed well with clean water, and meats are thoroughly cooked to prevent diarrheal illnesses.

Reproductive System and Sexual Health

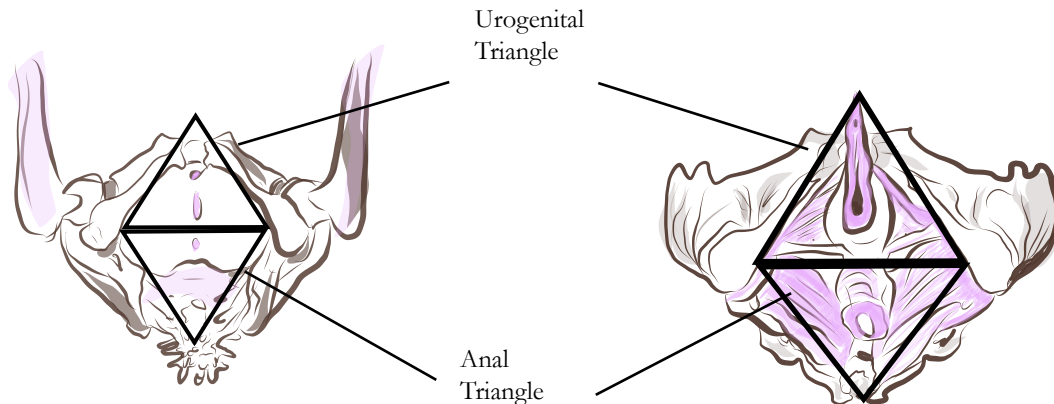
Pelvic Floor Anatomy & Function

The perineum

The perineum is the part of the body that extends from the pubic bone at the front of the pelvis to the tail bone at the back of the pelvis. The perineum can be divided into two triangles - the urogenital triangle towards the front and the anal triangle towards the back.¹⁰

The urogenital triangle includes two openings – those of the urethra and the vagina. The urethra connects to the bladder; its function is to pass urine (pee) to the outside of the body. The vagina is a flexible tube that connects the uterus to the outside of the body. The vaginal opening is called the introitus. The vestibule is the name for the space around these two openings. It includes glands, called Bartholin's glands, that secrete fluids for lubrication.¹⁰

The anal triangle includes the anus and the surrounding fat and connective tissues. These give some support, but are also loose and pliable so that they can expand during a bowel movement.¹⁰



Female external genitalia (or sexual organs)

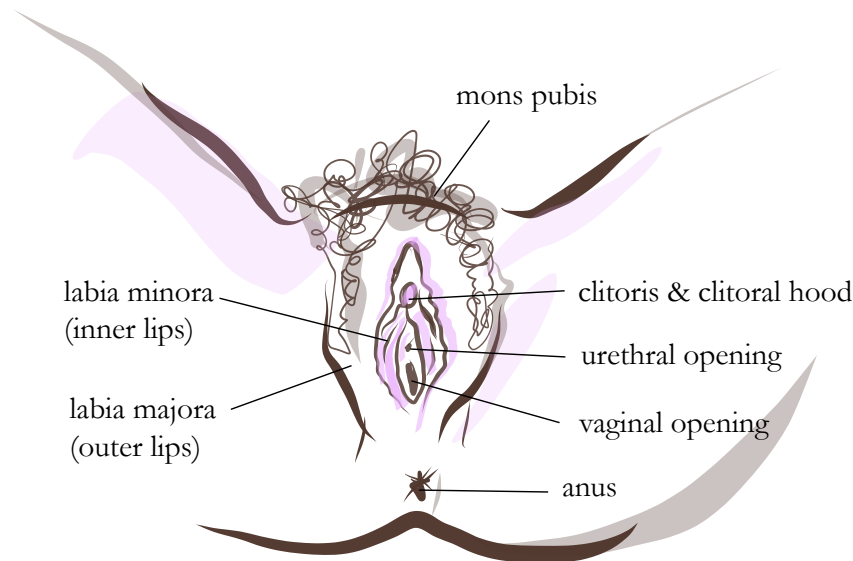
The vulva is the name for the external female genitalia. This includes the vaginal opening, the urethral opening, the vestibule and the labia majora and labia minora – the outer and inner lips. These function to protect the openings of the vagina and urethra.¹⁰

The head and hood of the clitoris is located between the labia minora towards the front of the pelvis at the pubic bone. This external part of the clitoris, called the glans clitoridis, contains lots of nerve endings, more than in any other part of the body, and is very

sensitive to stimulation. The clitoris divides into right and left 'legs' that are internal, behind the labia, passing by the openings of the urethra and vagina towards the anus. These contain erectile tissues that fill with blood during sexual arousal and contribute to lubrication of the vagina.^{23,24}

Female internal genitalia

The outside (external) female genitalia



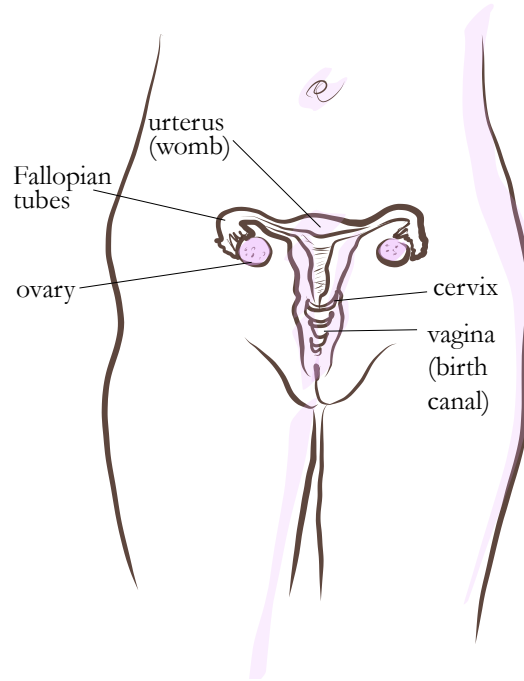
The vagina or birth canal is a flexible tube that connects the uterus to the outside of the body. The vagina ends at the cervix, which is the opening to the uterus. During childbirth, the baby passes through this canal, and during a woman's period, menstrual blood passes from the uterus through the vagina and out of the body.²⁵

The uterus or womb is a hollow muscle. During menstruation, the inner lining of the uterus is shed and exits the body as menstrual blood. When a woman is pregnant, monthly bleeding stops, and this is where the baby (or fetus) grows.²⁵

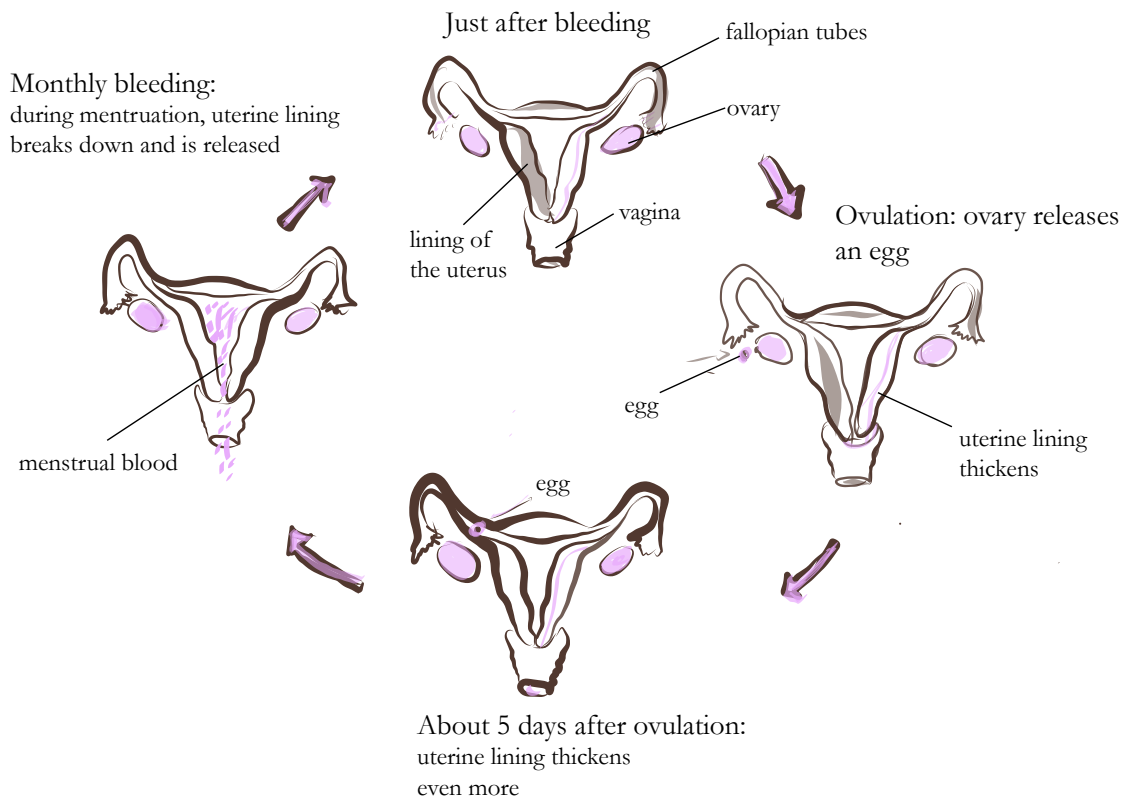
Reproductive System

The Fallopian tubes connect the uterus (womb) to the ovaries (eggs). Each month, one egg is released from either the right or left ovary. It travels into the Fallopian tube. If a woman has been sexually active and she is not using any family planning methods, it is possible that the egg will meet the male sperm - a process called fertilization. This union of the egg and sperm forms an embryo - the earliest stage of human development. The embryo travels to the uterus (womb) and attaches there, where it continues to grow throughout pregnancy. At 11 weeks of pregnancy, the embryo has developed the most critical organs and body parts. At 11 weeks until 40 weeks of pregnancy, the developing baby is called a fetus.

Most of the time, the egg is not fertilized. It will continue to travel along the Fallopian tube to the uterus (womb). In this case, the egg and the lining of the uterus (womb) are shed and released from the body through the vagina as menstrual blood.²⁵



The Menstrual Cycle



Sexual Health

The female sexual response is quite complex and a full discussion is beyond the scope of this training guide. However, a few key points are important to understand because women who experience problems in the pelvic floor may complain of sexual difficulties.

During sexual arousal, there is an increase in blood flow to the tissues of the pelvic floor. The clitoris may become erect, the labia swell, and the body's natural secretions lubricate the vagina. This lubrication eases penetration, or intercourse, if and when desired. With appropriate stimulation of sensitive areas (clitoris, labia, breasts & nipples, ears, back of the neck, etc.), a woman may experience an orgasm - a series of muscle contractions that signals the sexual climax and results in a sense of pleasure and relaxation. All of the muscles of the pelvic floor are involved in orgasm.²⁵

Each woman may experience sexual pleasure differently. It is possible for most women to experience an orgasm, though many women never do or have them only once in awhile. For many women, stimulation of the clitoris leads to orgasm. This can occur without having intercourse. If she wants, a woman may learn how to have an orgasm either by touching herself or by letting her partner know what feels good. It is also important to note that non-physical or non-tactile cues can also influence sexual arousal (seeing, hearing, talking, thinking), as can a sense of emotional closeness with a partner.

It is important to understand that sex should NEVER be painful. Women who are experiencing sexual pain or problems during intercourse should see a medical doctor, who can identify any infection or other causes. Sometimes, sexual pain and dysfunction can be caused by problems with the pelvic floor muscles, the nerves that innervate them, and/or the surrounding connective tissues. Women who have had pelvic or abdominal surgeries, those who have had trauma during childbirth, and women who have survived sexual violence may be more likely to develop sexual pain and difficulties.¹¹ Some treatment options for these problems will be discussed in Sections 4 and 5.

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Section 2: Pelvic Floor Disorders – Gynecologic Fistula, Pelvic Organ Prolapse, and Urinary Incontinence

Important health conditions affecting women

This section provides background on important pelvic health conditions that significantly impact women, especially those who live in low resource, low income countries. These include gynecologic fistula, pelvic organ prolapse and urinary incontinence. Definitions, causes, and consequences of these conditions are discussed as they relate to physical rehabilitation. For health care workers with previous training in obstetrics and gynecology, some of this information may be a review. This section was not designed specifically for patient education handouts; however, you may find useful language for explaining these health conditions to women and their communities.

Prolonged Obstructed Labor

Obstructed labor occurs when there is a mismatch between the size of the presenting part of the fetus and the mother's pelvis.¹ Essentially, the fetus becomes stuck in the pelvis and cannot be delivered without assistance. In areas of the world where health services are under-developed, women may not have access to a trained midwife or skilled birth attendant to aid in delivery. Family members or traditional birth attendants may not recognize this problem or may not have the knowledge, skills, or resources to manage it. Sometimes, hospitals may not be equipped to manage obstructed labor, lacking supplies and/or practical skills to perform an instrumented delivery or a Cesarean section.

Prolonged, obstructed labor may continue for many hours, or even days, leading to significant problems for both mother and baby and can result in maternal or fetal death or disability.¹ The Figure below shows the many consequences of prolonged, obstructed labor. For the mother, this can include gynecologic fistula, pelvic organ prolapse and other health conditions related to damage of the pelvic organs, muscles, nerves and support structures. For the baby who survives prolonged, obstructed labor, he or she may also experience mental and physical problems.

Consequences of Prolonged Obstructed Labor

(Image courtesy of EngenderHealth/Fistula Care Plus)



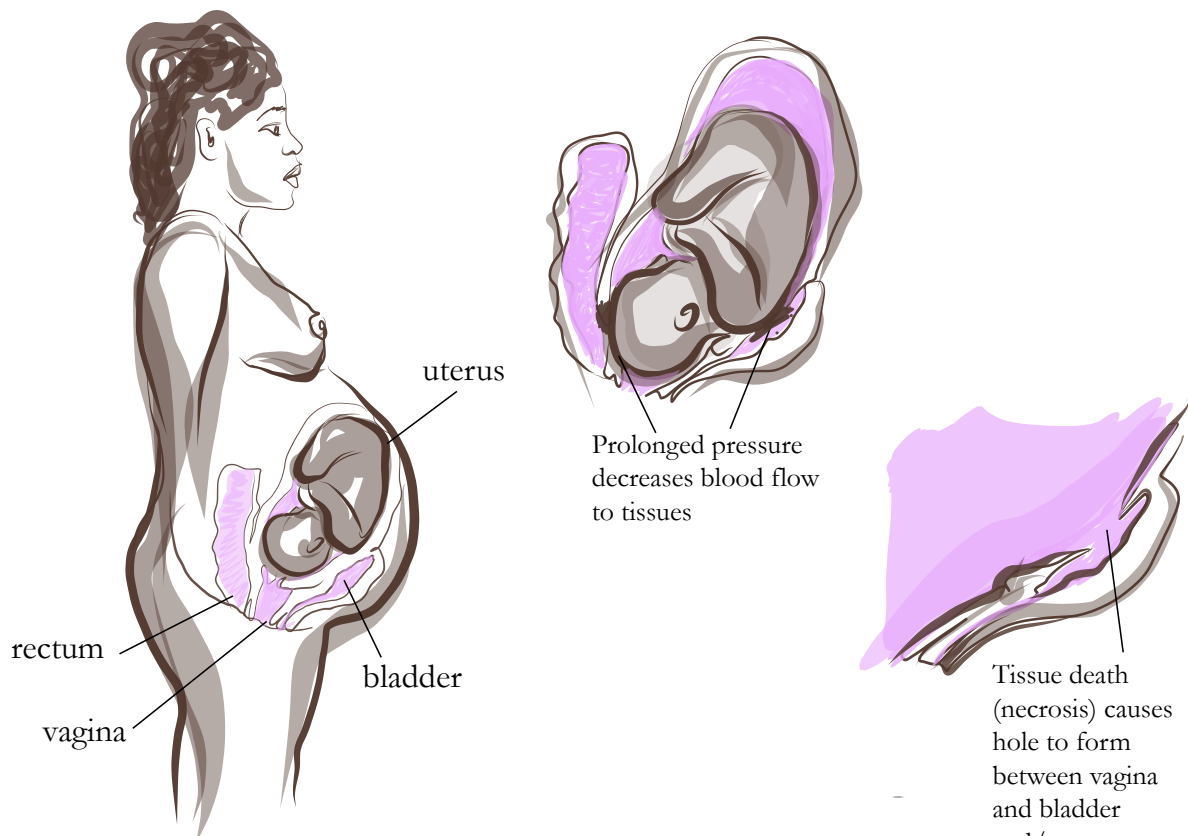
The World Health Organization offers resources to aid in prevention, early recognition and management of prolonged, obstructed labor.² This training guide emphasizes management of the maternal health conditions that may result, including gynecologic fistula, pelvic organ prolapse, and urinary incontinence, which are discussed in detail on the following pages.

NOTE: It is important to ask mothers who have survived prolonged, obstructed labor if they delivered a live baby. If yes, then ask about their child's development in order to identify infant developmental problems or delays that may be present. If there are any concerns, refer the child to a doctor for evaluation and assist the mother in finding resources in her community for children with developmental problems. As with any health condition, early identification and appropriate referral for health services can prevent additional complications and improve outcomes for the mother and her child.

Gynecologic Fistula

Gynecologic fistula is an abnormal hole that forms between the vagina (birth canal) and the bladder, the rectum or both.³ Other names for this condition include obstetric fistula, genital fistula or pelvic fistula. These all refer to the same health condition. When the fistula (or hole) forms, urine and/or stool (feces) passes through the vagina. A woman becomes incontinent and cannot control this leakage because the vagina is not designed to control these types of bodily fluids.

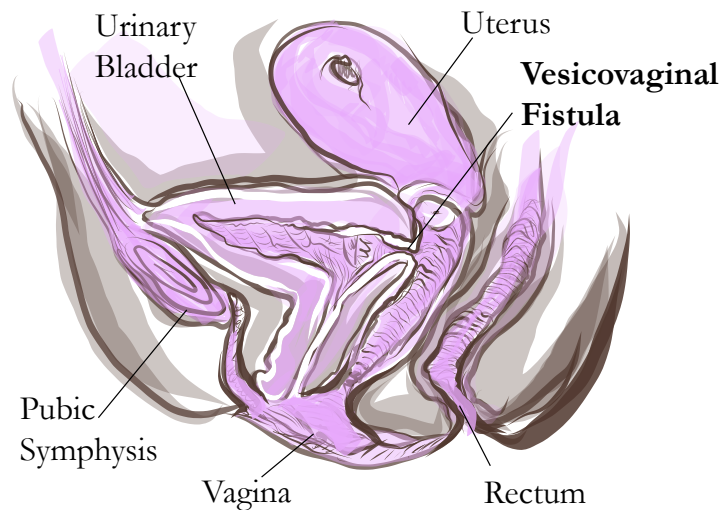
A gynecologic fistula is usually caused by prolonged, obstructed labor when the fetus is pressed against the pelvic organs and tissues of the pelvic floor, trapping them between the fetal head and the pelvic bones. This constant pressure leads to tissue death, called necrosis, which creates the opening (hole) between the bladder or rectum and the vagina.^{4,5}



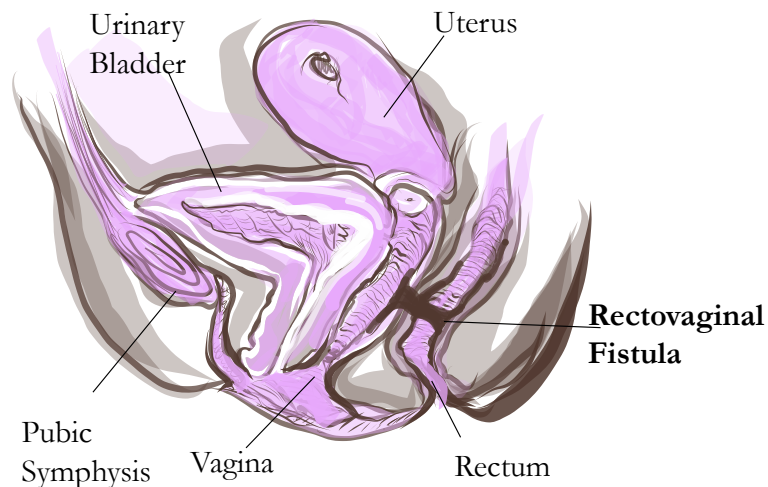
Fistula can also be caused during surgery, such as a Cesarean section or other pelvic surgery, when the surgeon accidentally cuts into the bladder wall. This is called iatrogenic fistula, and contributes to 17-24% of cases.^{6,7} Pelvic trauma, including violent rape or the insertion of sharp objects, such as with female circumcision, are causes of traumatic fistula. Fortunately, these are less common, 4-6% of cases, but the physical and psychological trauma may be severe.^{7,8}

There are two main types of gynecologic fistula:

Vesicovaginal fistula (VVF) connects the bladder to the vagina. It can involve the bladder, ureters, urethra, and a small or large portion of the vaginal wall. Women with VVF complain of constant urine leakage throughout the day and night. They may also report that they no longer have the urge to urinate and stop using the toilet altogether. This is because the bladder never fills enough to trigger the urge to urinate.

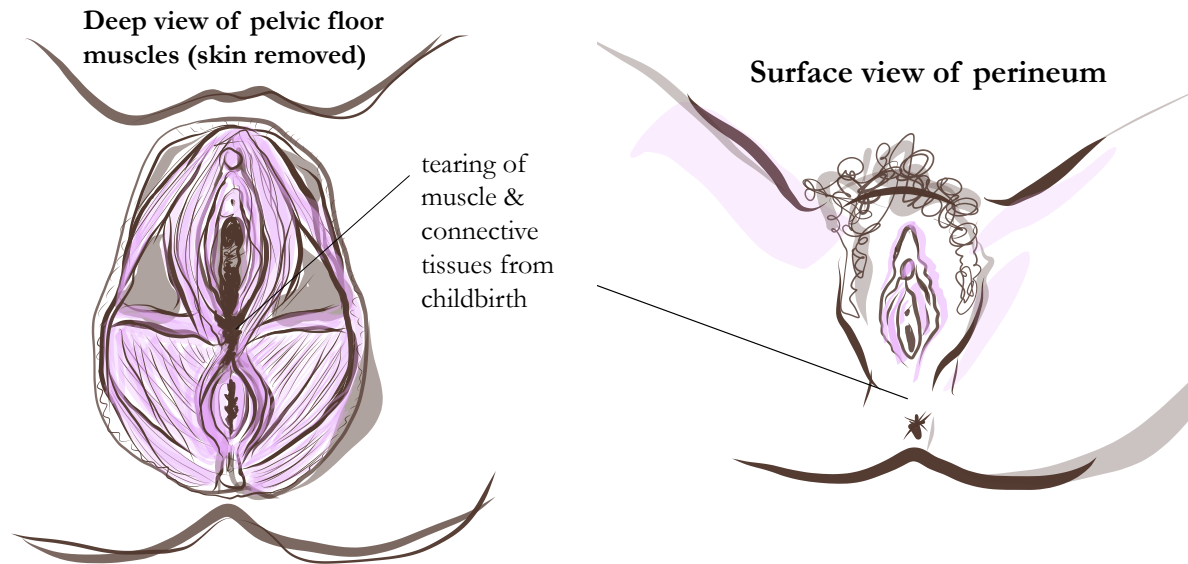


Rectovaginal fistula (RVF) connects the rectum to the vagina. This type of fistula is less common -- about 10% of fistula cases.⁹ Women with RVF complain of fecal incontinence and may report presence of stool (feces) in the vagina. Usually, women with RVF will also have VVF.¹⁰



Perineal tears during childbirth:

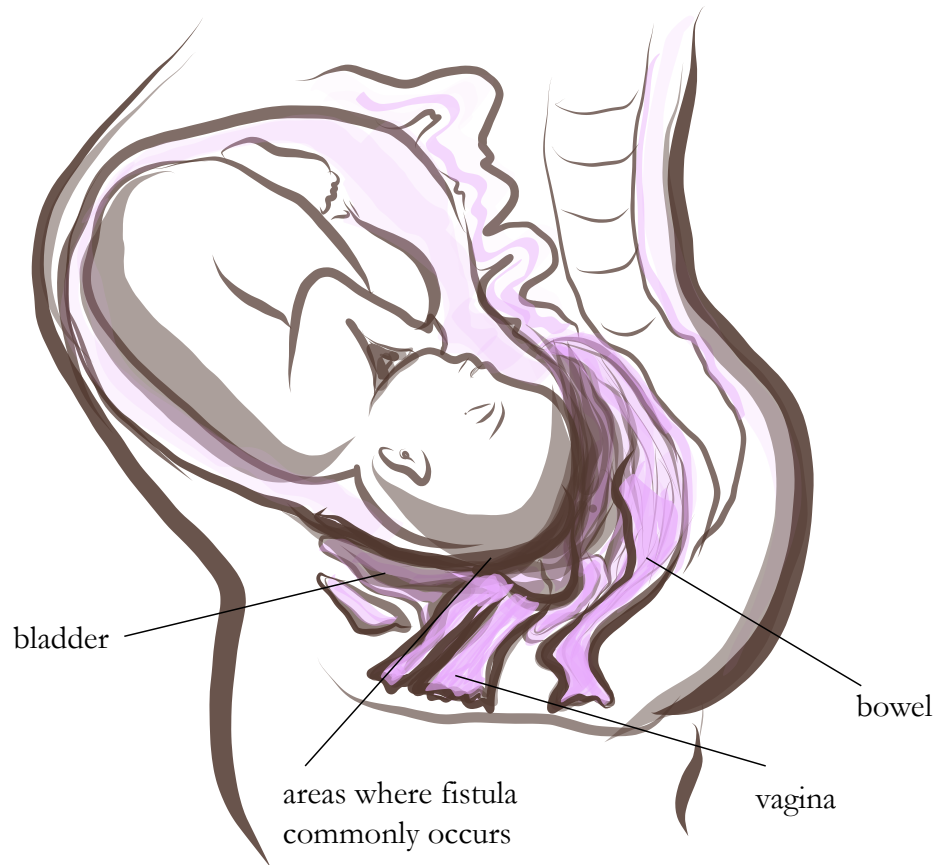
Some women may experience significant tearing of the pelvic floor muscles and connective tissues during childbirth. The most severe tear extends from the perineum to the anal sphincter muscles and part of the lining of the rectum. This is called a 4th degree perineal tear. Women with this type of injury may also complain of fecal incontinence and/or fecal urgency – a sudden and extreme urge to have a bowel movement. Surgery is required to repair this type of injury.¹¹



Rehabilitation may be similar for women with 4th degree lacerations as with RVF, as long as surgical repair is performed. We include 4th degree lacerations here because these women may present with similar complaints as those with fistula, and in places where there is not skilled surgical care, women often wait to seek care for this condition.

In most cases, surgery is needed to repair the fistula. Sometimes, if the fistula is identified very early, it may be treated by placing a catheter (small tube) into the bladder and allowing the tissues to heal and the hole to close on its own. Unfortunately, most women wait for months or years before they receive any medical care.^{12,13}

Incontinence of urine and/or stool (feces) is the main complaint of women with fistula. A woman who develops fistula may also have had other injuries, including damage to muscles and/or nerves in the hips, pelvis and legs. Consider the important role of the pelvic floor, and how damage to the pelvic floor may affect the support, stability, sphincteric and sexual functions of the pelvic floor discussed in Section 1.



Box 1: Physical complications that can develop alongside fistula¹⁰

Bladder stones: hard masses in the bladder due to incomplete bladder emptying

Pyelonephritis: kidney infection

Hydronephrosis: swelling of the kidneys due to blocked urine flow

Kidney failure

Fibrosis: scar tissue in the pelvis and abdomen

Stenosis: narrowing of the vagina

Dyspareunia: painful intercourse

Pelvic inflammatory disease

Amenorrhea: loss of menstrual cycle

Infertility

Osteitis pubis: infection in the pubic bone and pubic symphysis)

Nerve damage to the lumbar plexus and/or peroneal nerves, leading to foot drop, loss of control of pelvic floor muscles, numbness and/or weakness in the pelvis, hips, and legs. This can cause contractures of the legs and feet, difficulty walking and performing daily tasks

Pelvic, abdominal, hip and/or leg pain

Urea dermatitis: Chronic irritation and excoriation of skin (labia, perineum, groin) from contact with urine and stool

Malnutrition due to poverty, social neglect or depression

Psychosocial consequences for women with fistula

A woman with fistula is often stigmatized and isolated from her family and community because of the odor associated with the uncontrolled urine (or feces) leakage.^{4,14} She may be further stigmatized because of misunderstanding about the causes of fistula, and also if she became pregnant as a result of sexual violence. Depression and anxiety are common among women with fistula. Most women who develop fistula will also have a stillborn baby, and have depression or grief related to this loss, and also to the loss of fertility. The impact of fistula may be very devastating for a woman's physical, mental and social well-being.^{4,10,14}

Post-operative complications (conditions)

It is important to recognize that skilled medical and surgical care by health workers who are experienced in working with women with fistula is extremely important. In most cases, surgery or a series of surgeries will successfully repair the fistula – close the hole. But even once the fistula is closed, women may still remain with some of the problems listed below and those listed in Box 1.

Incontinence

Women may continue to have incontinence even after the fistula is repaired. Research shows that 15-33% of women report post-operative incontinence at the time of their hospital discharge. It is estimated that 12-31% of women with fistula will require more than one fistula surgery in their lifetime.^{5,15-21} Research also shows that continence rates decline over time, and a range of 45-100% of cases may become incontinent in the years following their fistula repair.²²⁻²⁶ We do not yet know all of the factors that contribute to incontinence after a fistula repair, but some studies suggest that the presence of scar tissue – fibrosis of the abdominal wall and pelvis and vaginal stenosis – are strongly associated with post-operative incontinence.^{16,27-29}

Pelvic pain

Pelvic pain can include pain or discomfort in the abdomen, pelvis, hips and/or low back. It may be present with physical activities, such as walking, carrying or lifting, or occur with urination, bowel movements, sexual stimulation or intercourse.

We do not have much research on pelvic pain among women with fistula. We do know that women who have experienced sexual violence are more likely to report pelvic pain, and rates of sexual violence are high in some regions where fistula is also common, such as in the Democratic Republic of Congo.³⁰ It is important to understand the circumstances in which women develop fistula, so that a program of physiotherapy and rehabilitation can address some of these additional concerns, as well.

Sexual function

Sexual function is complex, and includes factors such as desire, arousal, lubrication, orgasm, satisfaction and pain. Research on the sexual function of women with fistula is limited, though this has become a growing area of interest and concern among health workers and women, alike. Recent studies suggest that women who have been repaired are more likely to complain of pain with intercourse (dyspareunia) and/or loss of desire. Many women also have problems achieving vaginal penetration due to stenosis and a shortened vagina.³¹⁻³⁷

Musculoskeletal problems

Musculoskeletal problems can include limitations in joint range of motion of the hips, knees, and/or ankles, muscle weakness, impaired sensation and pain. These may lead to mobility problems, such as difficulty walking and performing daily activities. Research on musculoskeletal and mobility problems among women with fistula is also limited. Some studies show that 20-30% of women may experience foot drop, due to nerve damage and resulting leg weakness. Weakness and decreased range of motion at the knee and ankle may be more common among women with fistula, and they are also more likely to report difficulty walking.³⁸

Section 1 outlines the primary roles and functions of the pelvic floor. Even though a skilled surgeon can repair the fistula, damage to the pelvic muscles, nerves and connective tissues also require rehabilitation, in order to achieve full or partial recovery of function. This is why physiotherapy or physiotherapy-informed care can be so important following fistula surgery. Physiotherapy can address all of the post-operative complications outlined above – incontinence, pelvic pain, sexual function and musculoskeletal/mobility deficits.

Pelvic Organ Prolapse

Pelvic organ prolapse is a condition in which one or more of the pelvic organs (rectum, bladder, uterus, intestines) descends below its normal resting position.³⁹ Prolapse occurs when there is damage or weakness in the muscles, ligaments and connective tissues that hold these organs in place. This causes a loss of pelvic floor structural support. This damage may occur as a result of pregnancy or during childbirth, when there is stretching to the pelvic tissues that changes their abilities to hold the organs in place. Prolapse can also happen from other activities that cause over-stretching of these tissues. This includes straining to pass urine or to have a bowel movement, and activities that cause significant increases in pressure in the abdomen and pelvis, such as repetitive or heavy lifting and carrying heavy objects.

Sometimes a woman can have a prolapse but have no symptoms and is unaware that she has a prolapse. This is known as an asymptomatic prolapse. Other times, the prolapse results in significant symptoms, known as a symptomatic prolapse.

Common symptoms of prolapse include:^{39,40}

- Sense of pressure or heaviness in the vagina or pelvis
- Sensation that an object is inside the vagina
- A bulge that may be seen or felt in the vagina or exiting the vaginal opening

These symptoms may get worse at the end of the day, or after long periods of walking, standing or lifting heavy loads. Urinary incontinence, constipation and pain or discomfort with sexual activity are also common symptoms among women with prolapse.^{39,40} These physical symptoms may limit a woman's ability to perform her daily household activities and work duties.

In addition, women with pelvic organ prolapse may also suffer from depression and anxiety and may have problems with self-esteem and body image.^{40,41} Women may experience fear and social isolation related to their prolapse.

One study examined the experiences of women with symptomatic prolapse (stages II-IV) in the Amhara region in Ethiopia. The researchers found that women suffered in silence with severe physical symptoms, including pain and pelvic pressure, in order to avoid disclosing their condition to family and community members. These women cited fear of discrimination or being shunned from their households and communities. For these reasons, they hid their condition and avoided seeking medical care.⁴²

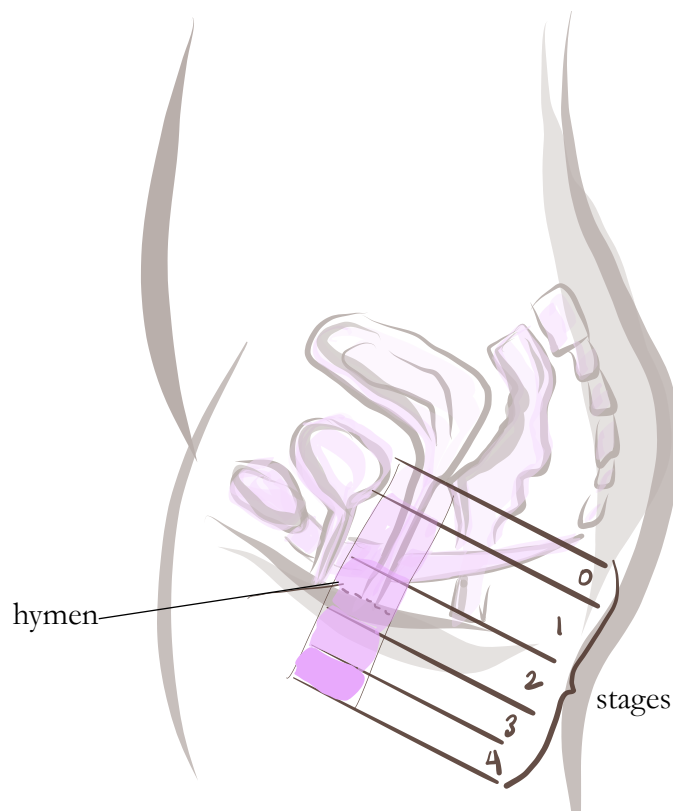
Another study of women with uterine prolapse in the Dahding district in Nepal reported that most women feared losing their abilities to fulfill their societal roles due to prolapse symptoms. Women cited fear of discrimination and shame if a male healthcare provider discovered their prolapse, and 48% reported seeking no healthcare for their condition.⁴⁰

Stages of Pelvic Organ Prolapse

Pelvic organ prolapse is described by the organ or organs that are prolapsed. It is also categorized by the stage of the prolapse. The stage indicates the degree or severity to which a pelvic organ has moved from its normal resting position into the vaginal canal.

In order to assign a stage to the prolapse, the examiner starts by identifying the hymen, or hymenal remnants, and uses this as an anatomical marker to grade the prolapse.³⁹

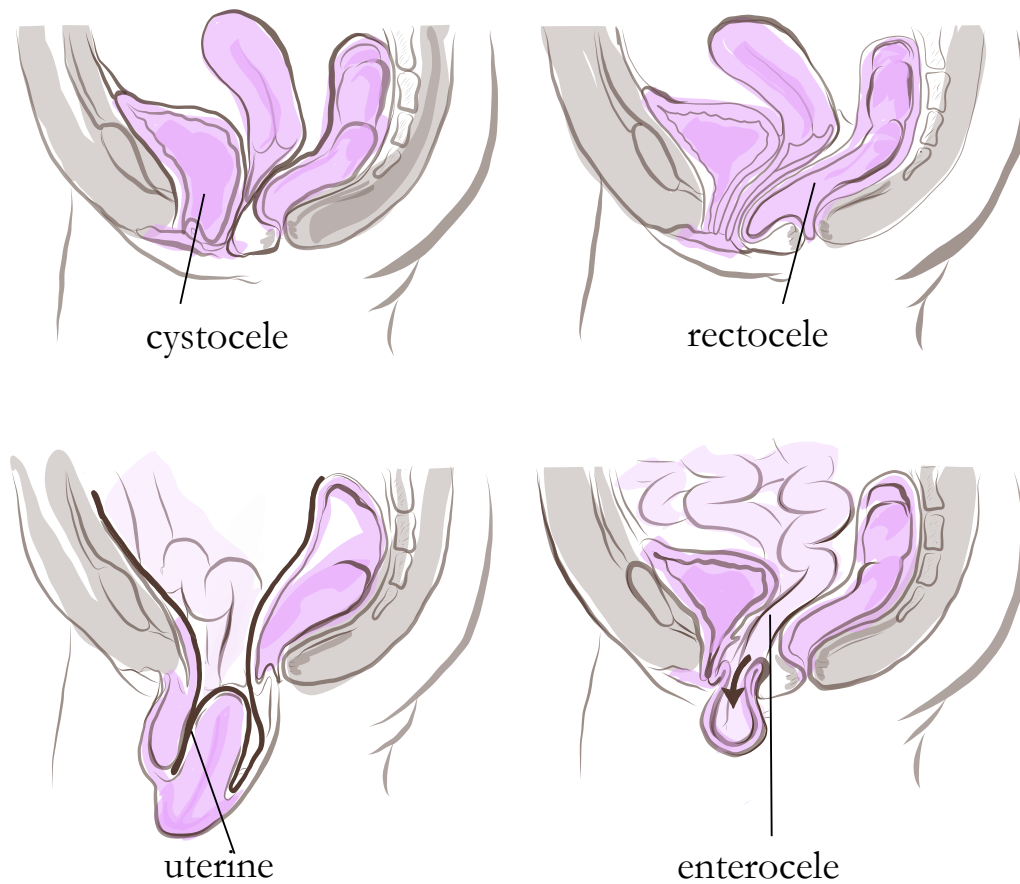
- Stage 0: No evidence of prolapse
- Stage I: The lowest portion of the prolapse is more than 1 cm above the hymen
- Stage II: The lowest portion of the prolapse comes approximately to the level of the hymen
- Stage III: The lowest portion of the prolapse comes more than 1 cm below the hymen, between the hymen and the opening of the vagina
- Stage IV: The lowest portion of the prolapse exits the opening of the vagina³



In addition to the stage, a prolapse is also defined based on which organs have descended. There are four main types of prolapse:

- **Cystocele:** The bladder descends and presses into the anterior (front) vaginal wall
- **Uterine prolapse** (uterovaginal prolapse): The uterus descends into the vaginal canal
- **Rectocele:** The rectum descends and presses into the posterior (back) vaginal wall
- **Enterocele:** The small intestine descends into the posterior (back) and/or superior (top) vaginal wall

Four Types of Prolapse



In some cases, surgery may be required to correct pelvic organ prolapse. However, symptoms of mild or moderate prolapse can often be improved with pelvic floor physiotherapy. Section 5 offers some suggestions for exercise to address the symptoms of pelvic organ prolapse.

Special Considerations

A woman can have both gynecologic fistula and pelvic organ prolapse at the same time. Proper diagnosis and treatment require a skilled surgeon to manage these conditions. It is also common for women with pelvic organ prolapse to be identified as part of screening for fistula cases. This is because women know their symptoms but may not understand their causes. Unfortunately, there are not always enough resources to provide care to all women with these pelvic health conditions, particularly if they need surgical repair. While physiotherapy cannot repair a fistula or directly fix a pelvic organ prolapse, it may help to manage symptoms until surgical care is available.

Urinary Incontinence

Urinary incontinence is the technical name for the uncontrolled and involuntary loss or leakage of urine, even if the urine loss is mild (just a few drops) or severe (a complete loss of a full bladder).⁴³ In everyday language, you may hear women say “I have a weak bladder” or “bladder leakage.” While these are not medical terms, they all refer to the same condition.

Urinary incontinence affects women of all ages and may be related to hormonal changes, such as menopause, pregnancy and childbirth, or injury to the pelvic floor.⁴⁴ The severity of incontinence (amount of leakage) and the number of women who report incontinence increases with age.⁴⁵

It is very important to understand that urinary incontinence is a common health condition, and affects many, many women around the world.⁴⁵ But, it is NEVER normal. In fact, in many cases, incontinence may be successfully treated with exercise, healthy lifestyle changes and/or physiotherapy with good results.^{46,47} Sometimes, medication or surgery may also be required.

There are different types of urinary incontinence, related to the cause or trigger of the urine leakage. Some types of urinary incontinence are defined below: ⁴⁸

Stress urinary incontinence: involuntary urine loss with physical activity or exertion, coughing or sneezing. This is the most common subtype of urinary incontinence in women.

Example: A woman has vaginally delivered 3 babies; she has pelvic floor muscle weakness and leaks urine when she coughs, sneezes and lifts heavy bags.

Urgency urinary incontinence: involuntary urine loss that occurs in response to a strong and sudden urge to urinate that is difficult to control.

Example: A woman with fistula has had a successful surgical repair, but she also has a very small bladder capacity. She leaks urine when she has a strong urge to urinate and delays going to the toilet.

Mixed urinary incontinence: involuntary urine loss that occurs with the urge to urinate and with physical activity, coughing or sneezing; a combination of symptoms of stress and urgency urinary incontinence. Usually one of these subtypes is more dominant, described as Stress-dominant or Urgency-dominant Mixed Urinary Incontinence.

Example: A woman experienced symptoms of stress urinary incontinence after the delivery of her baby 10 years ago. She managed these symptoms by restricting her fluids; she drinks 1-2 cups of water per day and goes to the

toilet frequently, even when she does not have a full bladder to empty. She now experiences urine loss associated with coughing, sneezing, and a strong urge to urinate.

Postural urinary incontinence: involuntary urine loss that occurs with position change, such as from lying to sitting or sitting to standing.

Example, a woman with a cystocele (Grade II bladder prolapse) leaks urine when she moves from sitting to standing; this may be due to the bladder re-positioning with change in posture and to impaired function of the pelvic floor muscles.

Continuous incontinence: continuous, involuntary urine leakage.⁴⁸

Example: A woman with gynecologic fistula experiences constant urine loss that she cannot control; this occurs during the day and night.

Functional incontinence: urine leakage that occurs when an individual is unable to physically get to a toilet; such as, mobility problems or barriers in the environment preventing them from getting to a toilet when they have a full bladder.⁴⁹

Example: A woman with leg muscle weakness is unable able to walk quickly across rough terrain to where the toilet is located and loses urine on route.

Section 4 provides interview questions to ask women about their incontinence symptoms. These questions are helpful in determining the type of incontinence and can guide treatment, including exercise, behavioral changes, such as dietary and fluid intake guidelines, and other medical interventions. Section 5 offers specific physiotherapy treatment recommendations for some types of incontinence and other pelvic floor symptoms.

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Section 3: Introduction to the International Classification of Function, Disability and Health

The ICF Model

Section 3 introduces a framework for understanding how a health condition, such as gynecologic fistula or pelvic organ prolapse, impacts a woman's ability to participate in daily life. All members of the health care team will benefit from understanding this functional perspective on health. This framework assists health care workers in identifying the factors that lead to poor functional outcomes and disability, which in turn helps to better direct interventions, including medical or surgical treatment, physiotherapy, counseling, family or community education as some examples. By doing so, all members of the health care team may contribute to alleviating disability and improving the quality of life for all women.

The ICF Model

The International Classification of Functioning, Disability and Health (ICF) provides a framework that helps us to understand that anyone can experience a health condition that causes some level of disability. This may be permanent (long-term) or temporary (short-term). It normalizes the experience of disability as a human experience that we will all have at some point in our lives. It shifts the focus from the cause of disease to its impact on a person's daily life. It helps us to measure health and not just disease, injury or illness.¹

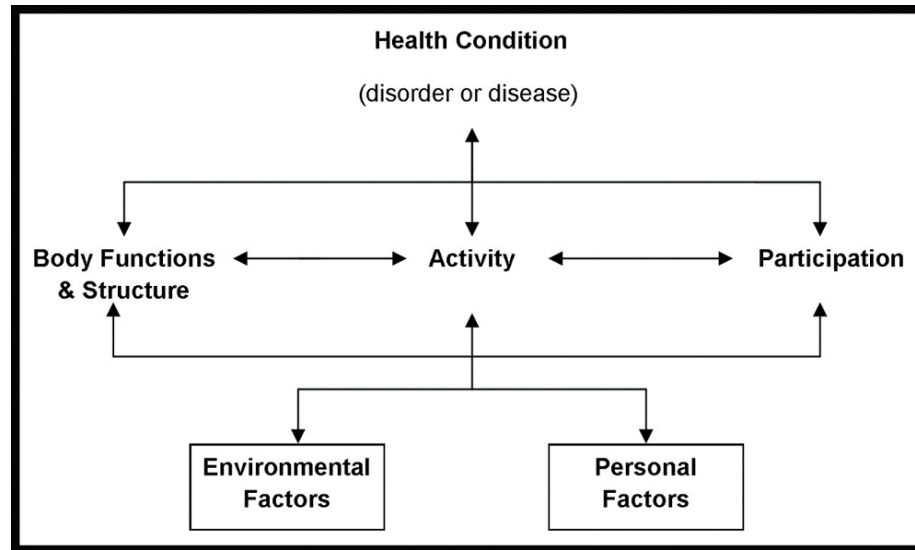
This framework places the woman at the center of care. It encourages a multi-disciplinary team approach to helping her achieve the best possible health outcome - her most optimal level of function.¹ Additionally, not all women with fistula or another maternal health condition will need identical treatment and services. The ICF framework helps to determine who will require which type(s) of services or treatments. It serves as a problem-solving tool. It helps all members of the healthcare team to understand individual needs and allows for collaboration and task sharing or task shifting.¹

This is very important because in many places where resources are limited there are not enough specialized healthcare workers to provide individual treatment to each woman. This training guide emphasizes principles of physiotherapy and rehabilitation, but it is clear that there are currently not enough skilled physiotherapists to provide individual treatment to every woman with a maternal or reproductive health condition.

By using this framework, we can best identify the individual needs of each woman, and use this to guide treatment specific to those needs.¹ For example, some women may need individual (1:1) specialized physiotherapy, while others may be successful in a group class that offers health information and advises on ways to improve functional activities and participation in daily life. Some may benefit from both. It may also help identify women who need other services, such as mental health services, counseling, financial resources, etc.

This framework also acts as a guide to plan treatment.¹ All members of the healthcare team – doctor, nurse, physiotherapist, social worker, community health worker, psychologist, other rehabilitation professionals – can use this to determine which interventions a woman may require. Program managers and hospital administrators can also use this to track outcomes and to determine how effective and useful the care is that they provide. Using this framework improves outcomes for the patient because it looks at the whole person.

Figure 1. The ICF Model¹



The ICF gives us a framework to understand how a disease, illness or injury impacts how we function in daily life, how we interact with the world around us, and how the world around us influences our experience of disease, illness or injury. It also guides us to identify contextual factors in the environment and within each individual – both positive and negative – that influence her health, predict treatment needs and guide outcomes.¹

The ICF identifies 3 levels of function: (1) the body and its structures (parts), (2) the person and her ability to perform daily activities for herself, (3) the person in a social context and her ability to interact with and participate in family and community life.¹

Function refers to body structures and how they work.

Impairments indicate problems in body structure and functions, such as muscle weakness, muscle, connective tissue and/or nerve damage, problems with bladder or bowel function, as some examples.

Activities refer to any act a person engages in to take care of herself in daily life, such as moving about, walking, bathing, dressing, etc.

Activity limitations indicate the inability to independently perform such daily activities and suggest the need for assistance or special modifications to complete self-care.

Participation is the ability of a person to interact with their environment and the people in their home, family or community, such as attending school or work, going to the market, caring for children and family members, etc.

Participation restrictions indicate the inability to perform such activities.

Disability suggests dysfunction at one or more of these levels.¹

Below is a description of each element of the ICF framework that is shown in Figure 1.¹

Health Condition

Any disease, illness, injury or disorder that influences functioning and may lead to disability.

Example: Obstetric fistula

Function / Disability

Body Structures and Functions / Impairments

- The body part or parts and body systems impacted by the health condition
- The extent of damage to these structures or the severity to which body functions are impacted by the health condition

Example: Bladder, Vagina, Pelvic floor muscles Urinary system, reproductive system, sexual function

Activities / Activity Limitations

- Actions and tasks executed by individuals

Example: Inability to maintain personal hygiene; interrupted due to frequent toileting and clothing changes; Inability to engage in sexual activity

Participation / Participation Restrictions

- Involvement in life situations

Example: Marital strain or divorce, isolation from family and community activities

Contextual Factors (may have positive or negative influences)

- Personal: Gender, age, ethnicity, tribal affiliation, habits, lifestyle, education, profession

Example: A young woman with no children may be more impacted by fistula than an older woman who has surviving children at the time she developed fistula

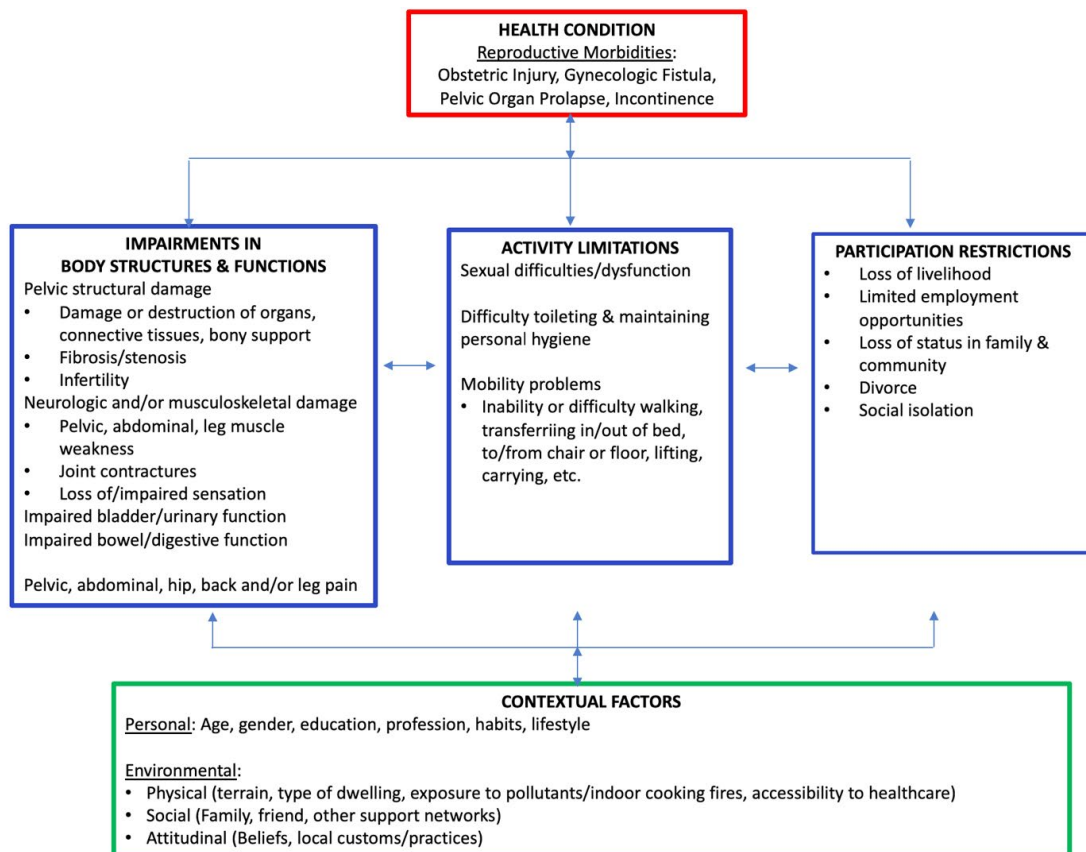
- Environmental: Physical, social, attitudinal environment may be a barrier or facilitator

Example: Community beliefs about the causes of fistula impact a woman's experience of fistula. A woman with a supportive family may suffer less than a woman whose family blames her for her condition.

Access to a health facility will impact whether a woman suffers her condition for years and experiences further debilitating complications (fibrosis, stenosis, dermatitis, etc.).

Using the ICF to plan for rehabilitative care:

Why is it important to think about function and disability when we care for women with gynecologic fistula and other reproductive health conditions? Each woman is affected a little bit differently depending on many factors – not just the health condition itself. The framework below applies the ICF model to reproductive health conditions. The impairments, activity limitations, and participation restrictions listed in each box are examples of how the health condition relates to these aspects of function. These are inter-related to each other and may also contribute to other health conditions.



For each impairment, activity limitation and participation restriction, we must ask the individual both whether she experiences these issues, and also the extent to which this impacts her life (severity). One useful tool to broadly determine the impact of a health condition, such as fistula, on a woman's daily life is called the World Health Organization Disability Assessment Schedule (WHODAS 2.0).² This tool is a simple survey that provides information about the level of disability a person experiences as a result of a health condition. It provides a score that represents a measure of disability.

This tool can be used before and after an intervention to determine how effective or useful the intervention is in impacting a person's health. It has been translated into many languages and validated for use in a variety of populations, including post-

surgical.² [Appendix 2](#) includes the WHODAS 2.0, along with several other available outcome measures that help us to determine the impact of a health condition on an individual's daily life. These may be used to assess the outcomes of programs or interventions.

Promoting woman-centered care using the ICF

The primary aim of fistula surgery is to close the hole and restore continence, so that the woman with fistula does not leak urine continuously. The primary goal of physiotherapy and rehabilitation is to identify physical factors, such as muscle weakness, incoordination and decreased flexibility and how these impact a woman's ability to function in daily life. Rehabilitation requires that we ask a woman about what she can and cannot do for herself, her family or her community and about her personal goals for treatment. We might ask her:

What does success look like for you? What self-care activities, family roles or community responsibilities would you like to be able to do that you currently have difficulty with or cannot do?

Her answers to these questions help to guide physiotherapy treatment and will help both the patient and the health care worker to know when treatment has been successful.

For a woman with fistula, we might **assume** that her treatment goal is to reduce incontinence – to be dry during the day and night. For many women, this may be an achievable goal with skilled medical and surgical care. For some women, this may be a reasonable goal, but at the expense of her sexual function due to vaginal stenosis, or a very short, narrow vagina that leaves them unable to engage in sexual intercourse. In fact, this was the case for some of the women who attended the First Obstetric Fistula Patients' Conference in Nigeria.³ Their surgical outcome was considered a 'success' by the health care team because the fistula was closed, and the women were no longer leaking urine. The women, however, considered their outcome a 'failure' because they could no longer engage in sexual intercourse. In fact, 90% of the women attendees reported that they preferred to remain incontinent rather than suffer persistent vaginal stenosis post-operatively.³

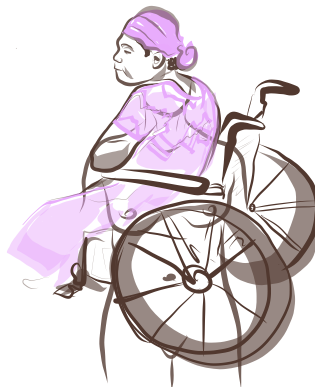
This example highlights the discrepancy, or mismatch, between the patient's understanding of her condition, treatment options and her health goals with that of her health care team. It is our job as healthcare workers to help our patients achieve their personal health goals. It is not our job to impose our goals on to our patients. By taking a woman-centered approach to health care delivery, health care workers and patients can align goals for treatment, improving health outcomes and quality of life.

Sometimes it can be challenging for health care workers to accept that a patient may not want to have a surgery or follow a particular plan of care. But it is the responsibility of all health care workers to consider patient autonomy – her right to be well-informed of all options and their potential outcomes – so that she can make the best decision for herself, her family and her community.

For those women in Nigeria, let us consider how their course of treatment may be different, particularly if some women had decided to live with urinary incontinence rather than undergoing a surgery that would close the vagina. What treatment may be provided instead?

- Incontinence management with absorbent underwear or pads, which she may learn how to make herself to keep as clean and dry as possible;
- Patient education about proper hygiene and reducing vulvar irritation from exposure to urine using available ointments or pure oil;
- Patient education about hydration and adequate fluid intake to reduce the odor associated with urine leakage, as well as to maintain overall health and function;
- Scheduling a follow-up appointment to allow her to return to the clinic for routine care, to allow her the option of surgery at a later date, if she chooses, or to offer additional treatment, as surgical techniques improve that may both restore continence and retain sexual function.

Note that much of the ‘intervention’ in this case involves **patient education**. The value of helping a patient to understand her injury, illness or disease process, the available treatment options, and the risks and benefits of those treatments has an immense impact on her health and well-being. Health education can empower women to seek and understand health-related information and to take action for health, for herself, her family and her community.⁴ This contributes to restoring a woman’s sense of agency – her sense that she has control over her own body and what happens to it.⁵ This can be particularly important for women who have experienced the physical and psychological trauma that accompanies an obstructed labor experience, stillbirth, unpleasant or unwanted medical procedures at traditional or ill-equipped health clinics, forced sex or marriage, among others.



Planning physiotherapy or physiotherapy-informed care

Section 4 provides detailed assessment techniques to determine the physical impairments and activity limitations that may be present in women with fistula, women with pelvic organ prolapse, postpartum women with urinary incontinence, and many other gynecologic conditions. It is important to remember that physiotherapy and rehabilitation treatment techniques address functional problems. They do not directly address the fistula, the prolapse or the underlying cause of disease. This is why many of the same physiotherapy techniques may be applied to women who have different health conditions (i.e. fistula, prolapse), but present with similar physical impairments and functional limitations.

For example, a woman with fistula may present with abdominal scarring from a previous surgery that is very restricted, contributing to decreased mobility in the pelvis and impaired function of the abdominal muscles. She may benefit from:

- Manual therapy (massage) techniques to improve tissue mobility and function
- Stretching exercises to improve the mobility of the hips, pelvis and back
- Exercises to improve the strength, function and coordination of the team of abdominal, pelvic floor, respiratory and low back muscles

These interventions will benefit a woman with pelvic and abdominal fibrosis (scar tissue) and decreased flexibility and mobility of the pelvic region. Her underlying health condition may be a fistula. In this case, she may benefit from the physiotherapy treatments described pre-operatively to improve her flexibility, tissue mobility, and functional strength and movement. She may also benefit from continuing with these treatment techniques post-operatively to continue to strengthen and to protect the surgical repair long term.

The same treatment techniques may also be useful for a woman who presents with urinary incontinence after a history of multiple Cesarean sections. She does not have a fistula and does not require surgery, but she may also benefit from similar physiotherapy and rehabilitation techniques to improve her symptoms and quality of life.

While the treatment techniques for these two women are similar, the prognosis or predicted outcome may be different.

On the one hand, the severity of tissue damage associated with fistula may leave a woman with post-operative incontinence that may improve with physiotherapy, but never fully resolve (go away). The woman with urinary incontinence after multiple

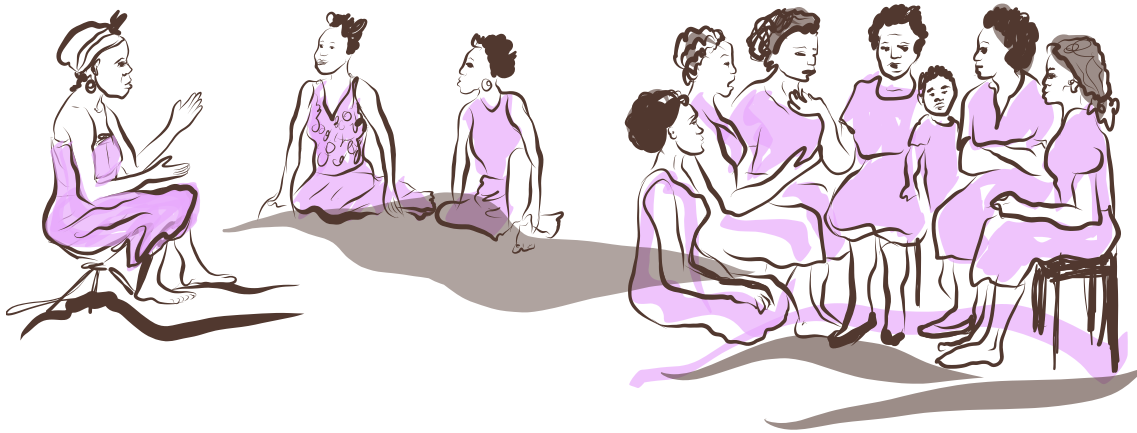
Cesarean sections may have less tissue damage and therefore, more likely to restore the tissue mobility, muscle strength and function of the pelvic floor to become fully continent.

On the other hand, contextual factors, including the physical environment and available social support may influence these two women in unexpected ways. The woman with fistula may remain with mild urinary incontinence, but she has a supportive family, is able to return to activities that earn her income and status within her community, and thrives, experiencing minimal disability. The woman with urinary incontinence following Cesarean sections may have limited employment opportunities and works in a kitchen, where she is exposed to smoke for many hours of the day, causing chronic respiratory illness and coughing fits. Impaired respiratory capacity and chronic cough places increased demand on the pelvic floor. This may limit her ability to fully restore pelvic muscle function and continence. We can encourage her to continue with exercise, and educate her about the effects of smoke exposure and chronic cough on her pelvic health. Additional treatment options for her might also include: (1) obtaining a protective mask or covering for the nose and mouth to reduce smoke inhalation, (2) scheduling regular breaks in fresh air, and (3) providing options for absorbent underwear or pads to contain urine leakage when it occurs.

Summary

The ICF framework aids health care workers in identifying the factors that contribute to a woman's health and well-being beyond her medical diagnosis. We recommend using this framework to guide physiotherapy and rehabilitation treatment for any woman with a pelvic health condition. By identifying specific physical impairments and functional limitations, treatment may be tailored to address the unique needs and health goals of each woman.

Section 5 offers sample physiotherapy treatment protocols. Many of these treatment protocols are not specific for a particular medical diagnosis, such as fistula. A thorough interview and examination, described in Section 4, will provide a list of physical findings, and it is these physical findings (i.e. muscle weakness, fibrosis, inability to get on and off the floor, etc.) that will inform which treatment techniques you will choose. The case studies that follow illustrate how the ICF framework may be utilized to plan physiotherapy interventions.



Case Study 1: Gynecologic Fistula

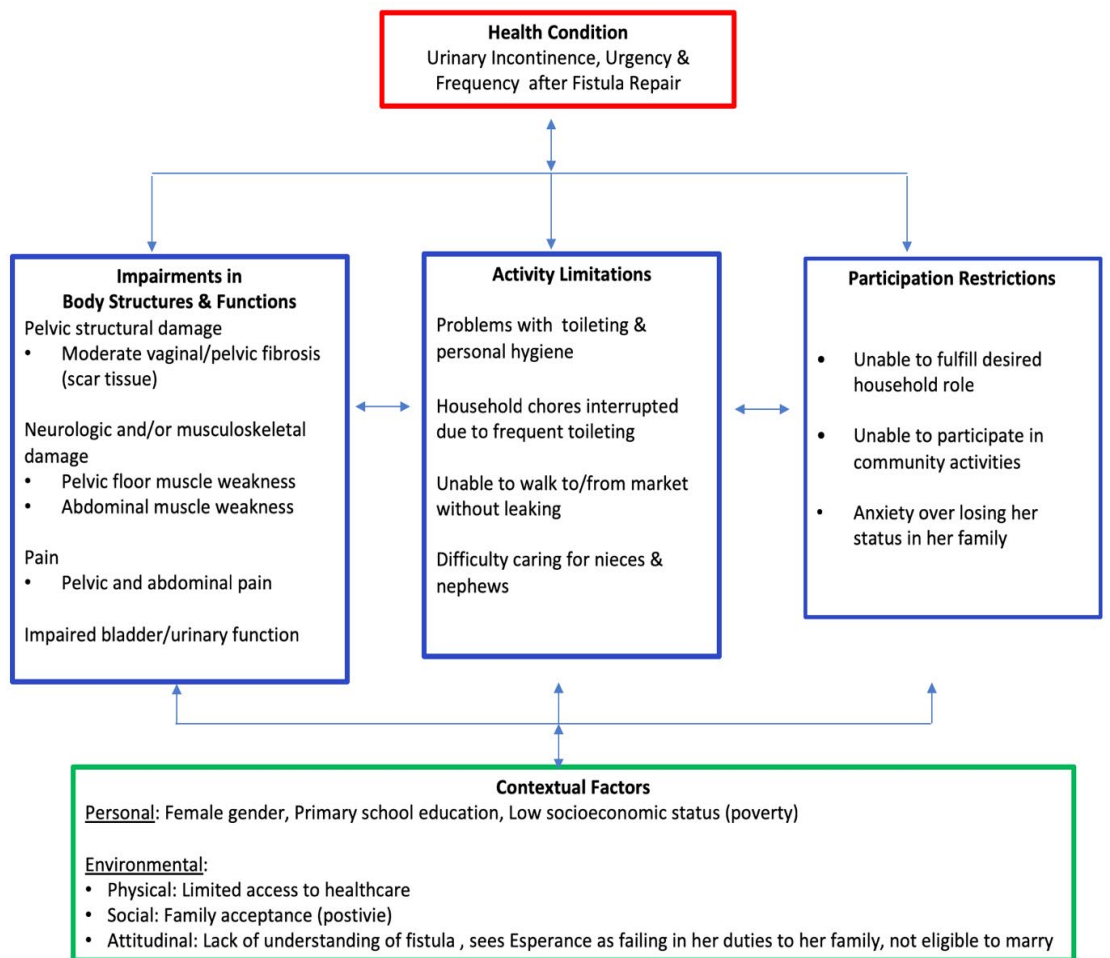
Esperance is a 24-year old woman who lives in a rural village in Rwanda. She experienced obstructed labor when she was 18-years old. She labored for 2 days, and on the 3rd day arrived at a health clinic, where the doctor performed a Cesarean section to deliver her stillborn baby. Soon after, she noticed that she was leaking urine constantly. She became depressed at the loss of her baby and further isolated due to the urine leakage. Her husband divorced her, and she went to live with her mom and siblings. Over the years, she became very sedentary, keeping to herself and sitting or lying down for long periods, trying to contain the urine as best as she could. She developed weakness and pain in her pelvis, hips and low back.

Her mother heard a radio announcement that doctors would come to their local health center to examine and treat women with symptoms like Esperance had. Esperance went for screening, was diagnosed with a vesicovaginal fistula, and scheduled for surgical repair. Her surgeons successfully closed the fistula, and she remained with a urinary catheter in place for almost 3 weeks. Once this was removed, she returned home. She was happier now and hoped to contribute to her family by completing some of the household chores and helping to care for her nieces and nephews.

Soon after her surgery, she noticed that she continued to have urine leakage. It did not occur constantly, as it had before her surgery. But, she experienced leakage several times throughout the day. Sometimes she leaked small drops; sometimes she lost a large volume that soaked her clothing. She noticed that she didn't feel the urge to urinate, until it was very strong. By that time, she had to run quickly to the toilet,

and often would leak urine on the way there. She was dry at night, but on waking in the morning, she would leak on the way to the toilet. It became difficult for Esperance to leave the house to shop in the market or to attend to her nieces and nephews. She was anxious about leaking and went to the toilet at least once per hour to try to empty her bladder.

Esperance decided to restrict her fluids, drinking only 1-2 cups of water during the daytime. She became constipated and developed abdominal discomfort as a result. When she heard the doctors were again coming to her local health center to care for women with fistula, she decided to return to ask them for help. The findings from her examination are listed in the ICF framework below.



Treatment Options

Esperance was examined at the health center, and the doctors told her that she did not have another fistula and would not need another surgery at this time. She may benefit from physiotherapy interventions to reduce her symptoms and improve her quality of life. These include:

1. **Patient education:** Teach Esperance about her pelvic anatomy and function in terms she can understand. Use the pictures in Sections 1 to describe normal pelvic floor function and to review healthy bladder habits. Explain that the exercises and behavioral changes you will teach her can help to improve her pelvic floor function and reduce her symptoms.
2. Follow the instructions for **Timed voids** (Section 5) and teach Esperance to follow a **Fluid schedule** (Section 5). Explain to her that restricting her fluids will decrease her bladder capacity and may worsen her symptoms. Help her to understand that it is important to drink enough clean water at regular intervals to train her bladder function.
3. Help Esperance with **constipation management** (Section 1). Ensure she is eating enough fiber and drinking enough water. Teach her proper toilet position to aid with bowel movements. Encourage her to walk and practice her exercises daily; this will help to stimulate regular bowel movements.
4. Instruct **Exercises for pelvic pain, urinary urgency, and urgency urinary incontinence** (Section 5).
5. Explain the importance of **Aerobic exercise** (Section 5), such as daily walking for 30 minutes, to improve overall health and increase circulation to her pelvic floor to improve its functioning.
6. Instruct **Massage techniques for abdominal scars** (Section 5). Esperance may learn how to self-massage her abdominal scar. This will help to decrease pelvic pain, and may improve the function of the pelvic floor by restoring the mobility of the muscles and connective tissues.

Esperance may benefit from one or a series of treatment sessions with a physiotherapist or other health worker who has been trained in the treatment techniques described above. It is helpful to repeat this information and to have her repeat it back to you to ensure she understands what she is supposed to do. You may also print or draw pictures of the exercises, massage techniques and other instructions.

Case Study 2: Pelvic Organ Prolapse

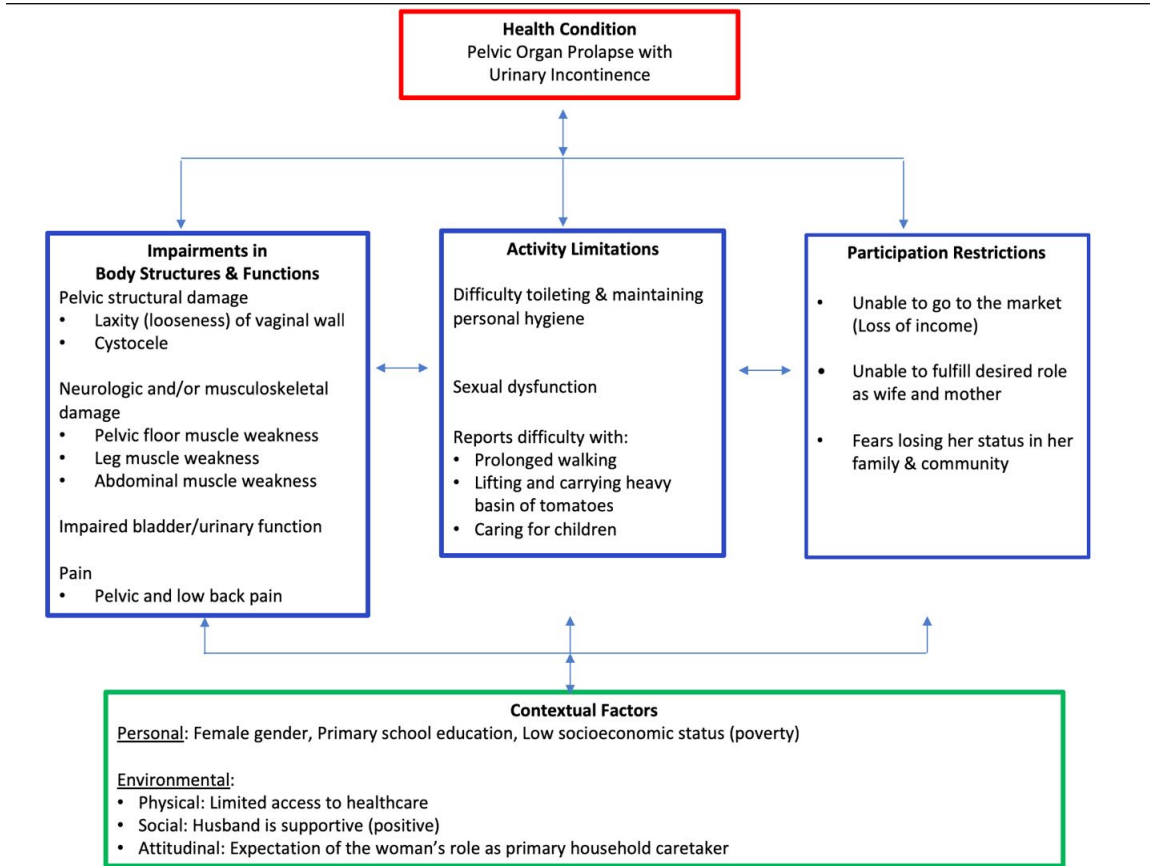
Fatimata is a 36-year-old woman who lives in a rural village in Mali. She is married and has 5 children. Ten months ago, she gave birth to her 5th child. Since then, she feels pressure and a sense of heaviness in her vagina. She also has low back pain. At the end of the day, she can feel something bulging from her vagina when she washes herself. She leaks drops of urine as she stands up after urinating. Her symptoms are worse at the end of the day.

She is also bothered by the following activities: walking long distances, carrying heavy loads, bending over to wash laundry and cook, and carrying her children. Three days per week, Fatimata walks 2.5 km to and from the market to sell tomatoes. She carries them in a large basin on her head, so that her arms are free to carry her young children.

In addition to working at the market, Fatimata is responsible for all of the cooking and cleaning in her family compound, caring for her 5 children and her husband. On market days, she relies on her oldest children (ages 7 and 8) to do much of the cooking and cleaning because of her discomfort and pain after walking a long distance and carrying a heavy load of tomatoes. She has missed selling at the market several times because she was unable to walk the distance.

Fatimata's husband must work longer hours in the fields to make up for the loss of income. The school year starts soon, and Fatimata and her husband may not be able to send their children to school because they cannot afford to pay the school fees if she continues to be unable to sell at the market.

Fatimata heard about visiting doctors in a neighboring village. Her husband suggested she go there to ask what can be done to improve her condition. The findings from her examination are listed in the ICF framework below.



Treatment Options

The visiting doctors were unable to offer surgery at this time. They are keeping her information, so that when resources become available, she may be contacted to schedule surgery to repair her prolapse.

Even without surgery, Fatimata can benefit from some physiotherapy interventions to manage her symptoms. These include:

1. **Patient education:** Teach Fatimata about her pelvic anatomy and function in terms she can understand. Use the pictures in Sections 1 to describe normal pelvic floor function. Use the pictures in Section 2 to show her what happens when the pelvic organs prolapse and how this contributes to her symptoms. Explain that the exercises and movements you will teach her can help to improve her symptoms by strengthening weak muscles and reducing the pressure that her daily activities place on the pelvic floor. Explain that she must practice the exercises daily for several months to improve her muscle strength and her symptoms.
2. Instruct [Exercises for pelvic organ prolapse](#) (Section 5).
3. Review and practice [Functional Mobility and Body Mechanics](#) (Section 5), including the sections on [Lifting, Carrying, and Housework & Farming](#).
4. Teach **Triple Voiding** to reduce incontinence after urinating (Section 5)
5. **Activity modifications:** Discuss with Fatimata what options she has to change how she carries tomatoes and travels to and from the market. Her husband may be able to take her there on his donkey cart before going to the fields. She may be able to walk back, since her load of tomatoes will be much less after selling. If this is not possible, she may need to plan to take one or more rest breaks during her walk, until she builds strength and endurance to complete the journey with little or no symptoms.

Fatimata may benefit from one or a series of treatment sessions with a physiotherapist or other health worker who has been trained in the treatment techniques described above. It is helpful to repeat this information and to have her repeat it back to you to ensure she understands what she is supposed to do. You may also print or draw pictures of the exercises and functional mobility instructions.

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Section 4: Patient Interview and Physical Examination

Section 4 is intended for healthcare workers who have completed clinical training at a university or technical school, including a medical, nursing or physiotherapy program. Physical assessment techniques are described in detail for reference. It is advised that clinicians participate in individual or small group training with a physiotherapist experienced in pelvic health and pelvic floor evaluation.* It is also helpful to practice these techniques with a healthy population, such as another health care worker who understands the goals for the physical examination and who can provide feedback about the clinician's interview and palpation skills. Healthcare workers who are not trained in providing direct patient care should not attempt the evaluation techniques in this section, particularly the internal pelvic floor examination.

**The authors of this training guide may be contacted by institutions or hospitals that would like to receive a visiting pelvic health physiotherapist to work with designated health care staff (physiotherapists, gynecologists, nurses, midwives, etc.) to build knowledge, skills and capacity for pelvic rehabilitation and physiotherapy. Appendix 3 includes a site readiness survey and a list of minimum necessary equipment for pelvic floor physiotherapy integration. Please include the completed survey in your correspondence.*

Patient Interview: Evaluation of Urinary Incontinence

Description of symptoms and complaints

It is important to ask the patient all of the questions about the urinary symptoms she experiences. These questions should be asked of women after a fistula or other pelvic surgery, those who are postpartum, those who are post-menopausal, those with pelvic organ prolapse and any woman who complains of incontinent symptoms. This will help to guide a treatment plan that addresses each woman's specific needs. A thorough interview can often provide enough information to begin to treat a patient's symptoms, is non-invasive and very cost-effective.

Below, you will find some terminology related to different types of urinary symptoms.¹ You will also see [Patient Interview Questions](#), which we recommend using as a script to ask patients about their symptoms. If the patient answers 'yes' to any of these questions, then a treatment plan can be developed to address her complaints. These questions are also summarized in [Appendix 2](#) and may be used to document patient responses.

Stress urinary incontinence – involuntary urine loss with physical activity or exertion, coughing or sneezing

- This may result from structural damage caused by childbirth, violent trauma, repeated micro-trauma, such as straining while lifting or having a bowel movement and/or weakened pelvic floor muscles.

Patient Interview Questions: Do you experience loss of urine (incontinence) with certain movements or activities, such as coughing, sneezing, laughing? Lifting? Carrying a medium or heavy load? Running? Jumping? Dancing? Singing? Yelling? Sexual intercourse? Any other activities? Have you stopped doing any of these activities because of urine leakage?

- Teaching women with stress urinary incontinence to contract and relax their pelvic floor muscles and providing them with a strengthening program can greatly improve incontinence symptoms.

Urgency urinary incontinence – involuntary urine loss that occurs in response to a strong and sudden urge to urinate that is difficult to control

- This may result from bladder contractions or spasm. It may also be associated with short, tight or contracted pelvic floor muscles and/or with constipation.

Patient Interview Question: Do you leak urine when you have the urge to urinate? Do you leak while walking to the toilet? Are you able to hold the urine until you reach the toilet?

- Teaching women pelvic muscle relaxation and coordination exercises, along with diet and behavior changes may help to address problems of urgency, frequency and urge incontinence

Urinary Urgency – the sudden, extreme urge to urinate

Patient Interview Question: Do you feel the sudden, extreme urge to urinate and must quickly run to the toilet?

Urinary Frequency – number of times per day the patient urinates; this means number of distinct visits to the toilet.

- Recall, it is typical to urinate on average 5-7 times per day.
- Women who report more or less frequent urination may be helped by following a voiding schedule. This is discussed in Section 5.
- Women who report less frequent urination – 5 times per day or less – require a close examination of fluid intake (to rule out dehydration). Limited urinary frequency may be associated with:
 - (1) fluid restriction/dehydration due to poor habits and/or lack of access to clean water or to a toilet;
 - (2) poor awareness or ignoring the urge to urinate; this may result from nerve or bladder damage, so that the bladder does not properly signal to the brain when it is full and needs emptying;
 - (3) a recurrent fistula that causes urinary leakage, so that the bladder never fills or stretches enough to send a signal to empty.

Patient Interview Question: How many times per day do you visit the toilet to urinate?

Nocturia – need to urinate that wakes the patient while she is sleeping at night

- Encouraging women to drink enough fluids during the day, and to stop drinking 2 hours before going to sleep at night may help reduce the number of nighttime voids.

Patient Interview Question: Do you wake up in the middle of the night to urinate? If so, how many times?

Nocturnal Enuresis – involuntary urination (incontinence) that occurs during sleep¹

Patient Interview Question: Do you leak urine during the night? Do you wake up and your bed/underwear is wet?

Incomplete voids (Post-void dribble or leakage) – loss of urine that occurs immediately after voiding

- This may indicate that the patient is not emptying her bladder completely, and she may need to be instructed on pelvic floor muscle relaxation and toilet positioning to help her to void completely. This may also indicate that patient may have pelvic organ prolapse, where the bladder cannot empty completely because it is not in the best position, and the flow of urine becomes obstructed. A physical examination will help to determine what is the cause.

Patient Interview Question: Immediately after you visit the toilet to urinate, do you dribble or leak urine? Do you leak a few drops when you stand up from the toilet or as you walk away?

Number of drinks/amount of water intake per day

- Recall, it is important to stay hydrated by drinking enough fluids, such as clean drinking water, in order to keep the body healthy and the urinary system functioning well.

Patient Interview Question: How much water do you drink per day? (If the patient cannot indicate number of liters, write in number of cups of water she drinks and estimate number of liters based on her description)

Caffeine intake/day – coffee, tea, soda

- Caffeine, sugary drinks and carbonated drinks can cause irritation to the inside of the bladder. Women with pelvic floor dysfunction may have bladder sensitivities. Often, we can help to reduce symptoms by explaining the importance of reducing or eliminating these. Adequate water intake will also help to flush the bladder and reduce irritation, urgency, frequency and bladder pain/discomfort.

Patient Interview Question: Do you drink coffee, tea, or juice sodas? If so, how many cups of each per day?

Incontinence Outcome Measures

- There are many standardized outcome measure to evaluate incontinence. You will find some of these in Appendix 2. These are useful to quantify the severity of incontinence and its impact on quality of life.

Patient Interview: Pain Assessment

Pain is a very complex phenomenon that is impacted by many factors. In fact, the ICF framework may be applied to pain as a health condition. Consider how the interaction of body structures and functions, activity limitations, participation restrictions, and contextual factors might influence the impact of pain on an individual's life.

It is important to ask each woman whether she experiences pain in her body, and if so, the location(s) and severity of pain. You may find it helpful to use a body diagram to mark the areas of pain.

- Because we are interested in pelvic health, we focus on pain and symptoms in the abdomen, low back, hips, and/or pelvis, including internal pelvic pain that occurs with sexual activity, urination, bowel movements, or other daily activities. It is also important to note if the patient complains of pain in other body parts. She may be referred for general physiotherapy to address those problems.

You may find it helpful to ask the patient to report if she hurts 'a little' or 'a lot,' during which activities she experiences the pain, and any activities that increase or decrease the pain.

Some hospital and clinic settings use a 0-10 scale, where 0 is no pain and 10 is severe pain. Sometimes it can be helpful to monitor pain, and how it changes with treatment. However, using this scale may not be appropriate in all settings or for all patients.

Patient Interview Questions: Do you have any pain? If yes, where is the pain located? Right now, at rest, do you have pain? Can you give your pain a number, if 0 is no pain at all and 10 is pain that is so severe that you need to see a doctor? Or, is it a little pain or a lot of pain? Is there anything that makes your pain better? Is there anything that makes it worse? Does it occur with urination? Bowel movements? Sexual stimulation or sexual intercourse? Are there any other activities that bring on your pain, such as walking, lifting, household activities?

The Physical Examination

Functional Movement Assessment

Physiotherapists are uniquely trained to evaluate how a person moves and functions in daily life. Here, we describe several functional movements that many women must do to carry out their daily activities. This section is not meant to replace a full physiotherapy evaluation, but to encourage all members of the health care team to observe and identify problems with movement and function.

Remember, the pelvic floor muscles work together with the respiratory diaphragm, the deep abdominals and the deep low back muscles to give the body functional strength and stability. These muscles must be strong, flexible and coordinated in order to allow us to move about and perform daily activities. It is very important to identify problems with functional movements for all patients with pelvic floor complaints.

When observing the patient perform these movements, it is important to note whether she:

- (1) moves easily, completes the movement with no difficulty;
- (2) moves with some difficulty, requires extra time and effort, or needs another person to help complete the movement; or
- (3) is unable to complete the movement at all, even with some extra time or help

The following functional movements may be easily observed as a patient enters and exits the examination room. If it is not possible to observe each of these activities, you may also ask the patient if she has any difficulty completing these tasks. Appendix 2 provides sample documentation form to note level of difficulty with each set of movements. The WHODAS 2.0 survey also captures this information. It is recommended to use this tool as part of each assessment and to track outcomes of treatment.

Moving on & off the examination table

- Observe the patient move on and off of the examination table. Does she require extra time or physical assistance to complete this movement?

Walking

- Observe the patient as she walks in and out of the examination room. Does she appear to be walking normally? Is she bent forward, leaning to one side, walking with a limp or dragging her foot/feet? Does she move very slowly or at a normal pace? Does she have someone helping her/holding her hand, or is she using a walking stick?

Squatting and moving on and off the floor

- Ask the patient to fully squat and stand up again. Does she require assistance of another person or need to support herself with her hands to complete this movement? Is she able to sit on the floor and stand up again?

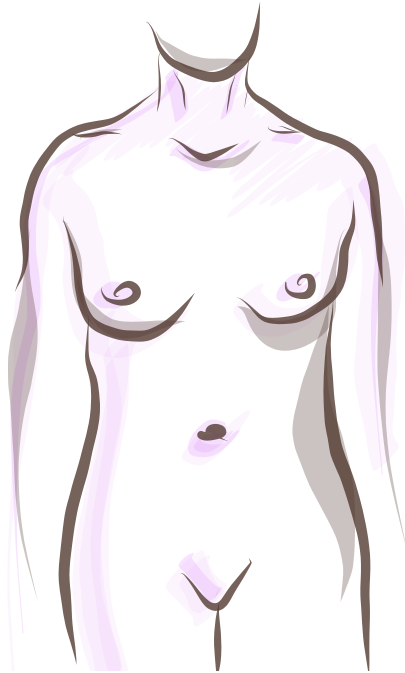
Lifting a bucket or basket of moderate weight (5-10 kg)

- Ask the patient to lift a basket or bucket containing a light to moderate weight. If she is able to lift the weight, ask her to carry it a short distance (from one side of the room to the other) and place it down. You may adjust the weight according to her ability. Note her level of difficulty performing this task, or if she is unable to do so as a result of weakness, deconditioning, or walking problems, such as contractures or foot drop. Also, note if she is able to talk as she lifts and carries the weight and places it down, or if she is holding her breath.

By including these functional tasks as part of a brief physical assessment, we can gather information about a patient's ability to move about and perform daily activities. If she has problems with one or more of these tasks, this presents a focus for physiotherapy treatment. A trained physiotherapist will be able to provide exercises and treatment for any patient with general functional mobility impairments, including contractures and foot drop. Some of the exercises in Section 5 are helpful both for patients with specific pelvic floor impairments, but also for general flexibility, strength, balance and coordination.

Abdominal and Pelvic Floor Assessment

For the Abdominal and Pelvic Floor Assessments, have the patient lie down on her back with her knees bent. If available, use a pillow, cushion or rolled towel or fabric to support her head and neck. Cover the patient with a blanket, sheet or piece of fabric, so that she is not lying on the examination table with her genitals exposed for the duration of the exam. If she is leaking urine continuously, use an absorbent pad, sheet or cloth under her pelvis to contain the urine.



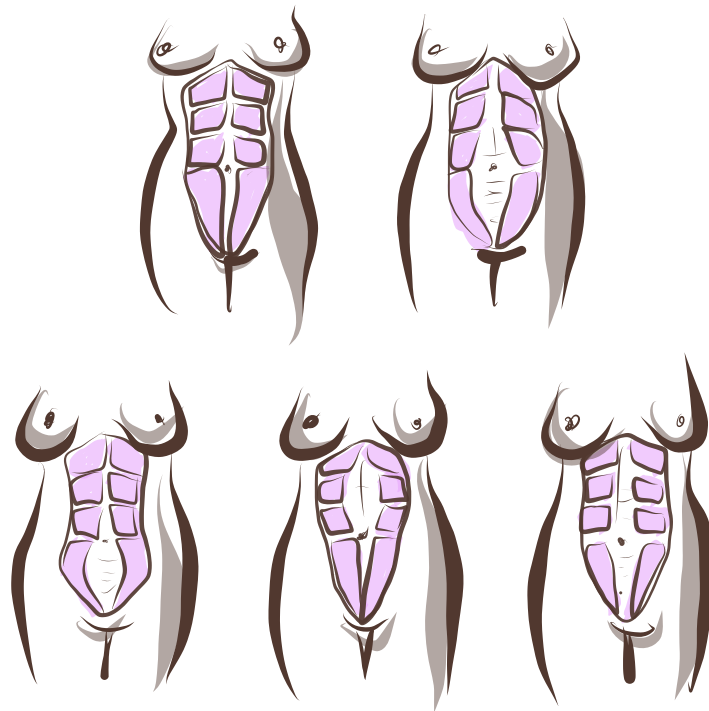
Abdominal Assessment

- Observe the abdomen. Note any scars and mark their location(s) on the body diagram. Note if the skin appears to be very tight/taut and contracted, if it is very loose and soft, or if it appears healthy/normal.
- Palpate the abdominal wall with a flat hand, using the pads of the fingers. Do not poke and press very hard, as this may cause pain or discomfort. Palpate (touch) each area of the abdomen, right and left sides of the abdominal wall, around the umbilicus, under the ribs along the costal margin, and above the pubic bone.
- Note if there is any pain or if the tissues are very tight and restricted. Even if the patient does not have any visible scars, it is possible you will feel scar tissue or adhesions from prior pelvic surgeries or pelvic floor damage – especially in the lower abdomen.

Diastasis Rectus Abdominus (DRA) – Midline separation of the abdominal wall

- Recall, we discussed the importance of the abdominal muscles and their role as part of the team of muscles that helps to control (modulate) the pressures in the abdomen and pelvis. It is critical for these muscles to be intact and healthy, in order for all of our body systems to work properly, to keep us continent, and to enable us to move without pain.
- After pregnancy, many women will develop a midline separation of the abdominals, called a diastasis rectus abdominus or DRA. Sometimes, this separation heals on its own. But, it does not – especially in women who have had multiple pregnancies, which many sometimes over-stretch these muscles and connective tissues.

Variations of Diastasis Rectus Abdominus

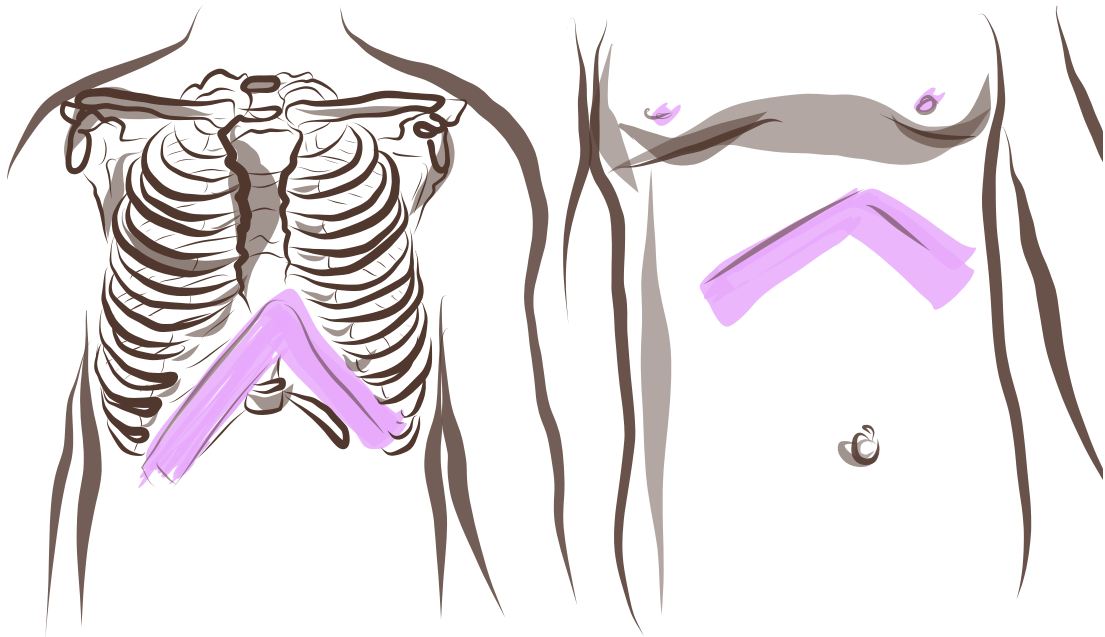


How to check for DRA:

- With the patient positioned on her back with knees bent, gently palpate at the umbilicus (bellybutton), checking the rectus abdominus muscle for position and muscle tone. If there is a very large separation, you may need to use 2 hands to gently feel for how wide this is. Also, note how deep you can sink the fingers in. Ask the patient to lift the head and neck up. Feel what happens under your fingers. Do you feel the muscle tense under your fingers? Does the separation close partially or fully? Repeat this technique approximately 4 cm above and 4 cm below the umbilicus.

Breathing Assessment

- Check the rib angle by placing the thumbs together in a ‘V’ position at the base of the ribs, just at the xiphoid process. Typically, this angle should be approximately 90 degrees.
- If the rib angle is > 90 degrees, this may indicate damage to or weakening of the muscles and connective tissues during pregnancy, after abdominal surgery or as a result of injury or illness.



- After you have palpated the abdominal wall, checked for DRA and rib angle, observe the patient’s pattern of breathing. Note what areas of the chest and abdomen are moving during the inhale and exhale. Recall the relationship of the movement of the diaphragm with the pelvic floor muscles. On inhalation, the diaphragm descends and the pelvic floor lengthens. On exhalation, the diaphragm rises, and the pelvic floor lifts.
 - Can you visualize the rise of the abdomen on the inhalation?
 - Does she tend to breathe very shallow into the upper chest and rib cage? If so, we can direct treatment to improve the movement and function of the diaphragm, so that the lower ribcage and abdomen expand on the inhalation.
 - Do you see only the movement of the abdomen on the inhalation with little or no movement in the ribcage? If so, we can direct treatment to improve the mobility of the ribcage and upper spine to enable better breathing at rest and with activity.

Breathing exercises are very important, particularly for women who have experienced physical or psychological trauma, including obstructed labor and pelvic injury, such as fistula. However, asking a woman to focus on her breathing too much can sometimes cause more dysfunction – and so, we must be careful with the verbal and physical cues we provide to change her mechanics of breathing.

- Sometimes, encouraging women to sing or hum or to count out loud while performing exercises is a simple way to improve the breath and promote more functional movement of the diaphragm or pelvic floor.
- We can also use techniques, such as blowing through a straw or small tube to improve the endurance and function of the diaphragm, abdominals and pelvic floor. Lengthening the exhale in this way often leads to an improved inhalation, where the diaphragm descends, the abdomen rises and the ribcage expands – all without causing undue stress or over-thinking on the part of the patient.

Examination of the Pelvic Floor

These examination parameters presume integrity of the pelvic floor system. Injury to muscles, nerves, or connective tissues (fascia) can lead to tightness or laxity (looseness), either of which can influence pelvic floor examination findings. Fibrosis or stenosis (scar tissue, adhesions) can cause changes in pelvic floor anatomy and function, and you may find presence of dense, hard tissue and/or painful areas. Pelvic injuries, such as fistula, can also damage the muscles, so that minimal or no movement is seen or felt when the patient is asked to contract (squeeze & lift) her pelvic floor muscles. It is helpful to practice these examination techniques on a healthy population, such as another health care worker, who understands the goals for the pelvic floor examination and who can provide feedback about your examination skills. This will prepare you to perform an examination on a woman with pelvic injury who does not have an intact pelvic floor.

A thorough examination of the pelvic muscles and related anatomy is important to complete the clinical picture. During this exam, the following parameters are evaluated:

- Strength – squeeze and lift, duration of contraction, number of repetitions
- Range of motion – amount of movement up/in and down/out
- Motor control – ability to perform controlled and coordinated movements
- Sensation – absent/decreased, normal, increased/hypersensitive
- Symmetry – right and left sides
- Pain – location, severity, aggravating and easing factors
- Tissue quality – texture, tone, taut bands, tender points, mobility

General Guidelines

For the pelvic floor examination, it is NOT necessary to have a special table with stirrups or other adaptations. You need only a private treatment area with a simple examination table that is accessible on both sides and a clean sheet to cover the patient. Adequate light is helpful for observing the perineum externally, but no special lighting is required. Natural light, such as from a window is sufficient, as long as privacy is maintained, and the patient cannot be seen through the window.

- ALWAYS use a new pair of clean gloves.
- Some mild pain or discomfort is normal during the internal exam. The patient may require a period of rest if the exam is painful and/or if they are guarding or tensing their muscles.

- When significant pain and distress is present, it is advisable to stop this aspect of the examination. This examination may be attempted again at a later time when pain levels are more controlled, and the patient is more comfortable with the process.

Before you begin the exam, explain to the patient what you plan to do. If available, use anatomical posters and/or models to describe the role and function of the female pelvis:

Patient instruction: In a moment, I am going to examine the muscles and tissues inside the pelvis. First, I will look at and feel the tissues outside of the vagina. Then, I will gently insert one gloved (and lubricated) finger to touch the muscles inside the pelvis. I will ask you if one or more areas are painful, and then if it is comfortable for you, I will ask you to squeeze and relax the muscles several times. It is important for me to know what you are feeling and if at any time you need me to stop, that is okay.

Explain WHY the internal exam is important:

Patient instruction: This will help me to assess some of the physical reasons why you have your problem and help us form a plan for treatment. I will examine: (1) whether there is scar tissue present, (2) whether you have pain and where the pain is located, and (3) the strength and coordination of your pelvic floor muscles. Do you have any questions before we begin?

Please undress from the waist down, removing any underclothes. Then, lie down on the examination table on your back and cover up with the sheet provided. If you would like to have a friend, family member, or another health care worker present during the examination, please let me know. We will wait until you are comfortable to begin the examination.

NOTE to clinicians:

If the patient is having any mobility problems, such as difficulty walking, squatting or getting on and off the treatment table, she may require assistance.

- During the pelvic exam, maintain a dialogue and maintain eye contact with the patient. Continue to explain what you are doing. You may need to prompt her to relax and to breathe, pausing in the physical examination to assure this, if necessary. Continue to ask her to tell you if she is having pain or discomfort, and give her permission to tell you when/if she needs a break from the exam. You will also need to explain exactly what you want her to do when you begin the muscle function assessment.

External Pelvic Anatomy Examination

After washing your hands thoroughly, place yourself to one side of the examination table, sitting on a stool or chair, if available. You may place one hand gently on the patient's thigh or abdomen to help her to feel comfortable with your touch and reduce anxiety about the examination.

Patient instruction: Bend your knees and step your feet apart. Now, I am going to lift the sheet, so that I can look at the perineum. Is that okay with you?

- Observe the perineum externally – Note the presence of scars, muscle tone, ability to relax, and quality of the skin.

Patient instruction: Now, I want you to squeeze your pelvic muscles as if you are trying to stop the flow of urine or hold back gas.

- Observe the movement of the perineum and pelvic muscles as the patient attempts to squeeze and release. Normal, healthy pelvic muscles should move up and inside the pelvis as they contract and return to a resting or lengthened state as they relax.
- You may observe abnormal or dysfunctional movements, such as:
 - (1) the muscles bulge or descend as the patient attempts to contract;
 - (2) the muscles draw up and in, but remain in this position, rather than relaxing, lengthening or descending to a resting position;

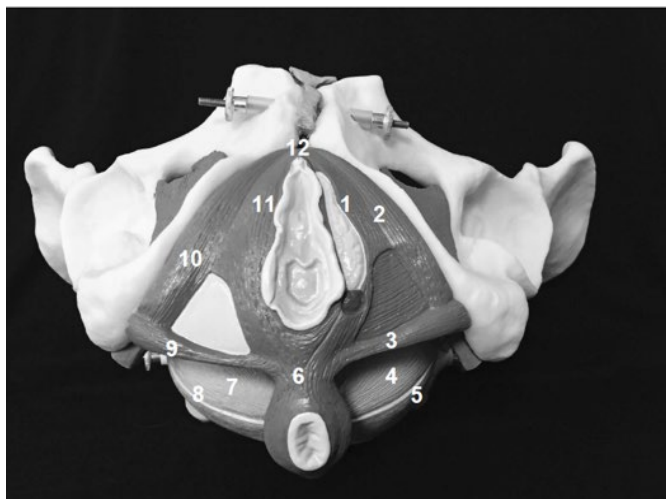
(3) no movement is observed.

- You may also observe asymmetry, where one side moves differently from the other side.
- Also, note whether the patient contracts other muscles, such as squeezing the inner thighs or buttocks together, pulling the abdomen in or holding the breath. A woman with a healthy, undamaged pelvic floor should be able to isolate the movement of the pelvic floor without excessive use of the surrounding muscles.

Patient instruction: Now, I am going to touch around the outside of the vagina. I want you to tell me if any area is painful.

Superficial Pelvic Anatomy Examination

- Use a pair of clean gloves. No lubricant is required for the external pelvic floor examination.
- Palpate the right and left sides according to the “pelvic clock” below.² Using the pad of your first finger, apply gentle to moderate pressure to each area. Note whether the tissues are tight, loose/lax, or painful.
- Patients with fistula may have chronic irritation of the tissues due to constant urine leakage, and this can cause pain externally and give the tissues a thick, tough quality when palpated.
- Patients with pelvic organ prolapse may present with the pelvic organs at or just outside the vaginal opening. You may gently reposition up and inside the pelvis or ask the patient to do so herself.



Pelvic Clock Examination

1. Bulbocavernosus (L)
2. Ischiocavernosus (L)
3. Superficial Transverse Perineal (L)
4. Levator ani (L)
5. Levator ani (L)
6. Perineal Body
7. Levator ani (R)
8. Levator ani (R)
9. Superficial Transverse Perineal (R)
10. Ischiocavernosus (R)
11. Bulbocavernosus (R)
12. Pubic Symphysis

Internal Pelvic Examination

Hygiene considerations:

- Ensure fingernails are trimmed and kept short.
- Wash hands thoroughly and use a pair of clean gloves.
- If using a tube or pump of lubricant, place a small amount on a clean cloth or towel next to the patient. This will avoid contamination by repeatedly squeezing or pumping lubricant once you have washed your hands and put on clean gloves. If available, single-use individual lubricant packets may also be used.

Palpation Component:

Patient instruction: Now, I am going to insert one finger into the vagina. Before I begin, is that okay with you? I want you to tell me if any area is painful, as I touch each part of the muscles.

Apply a small amount of lubricant on the fingertip AFTER the external pelvic muscle examination and BEFORE inserting the finger into the vagina.

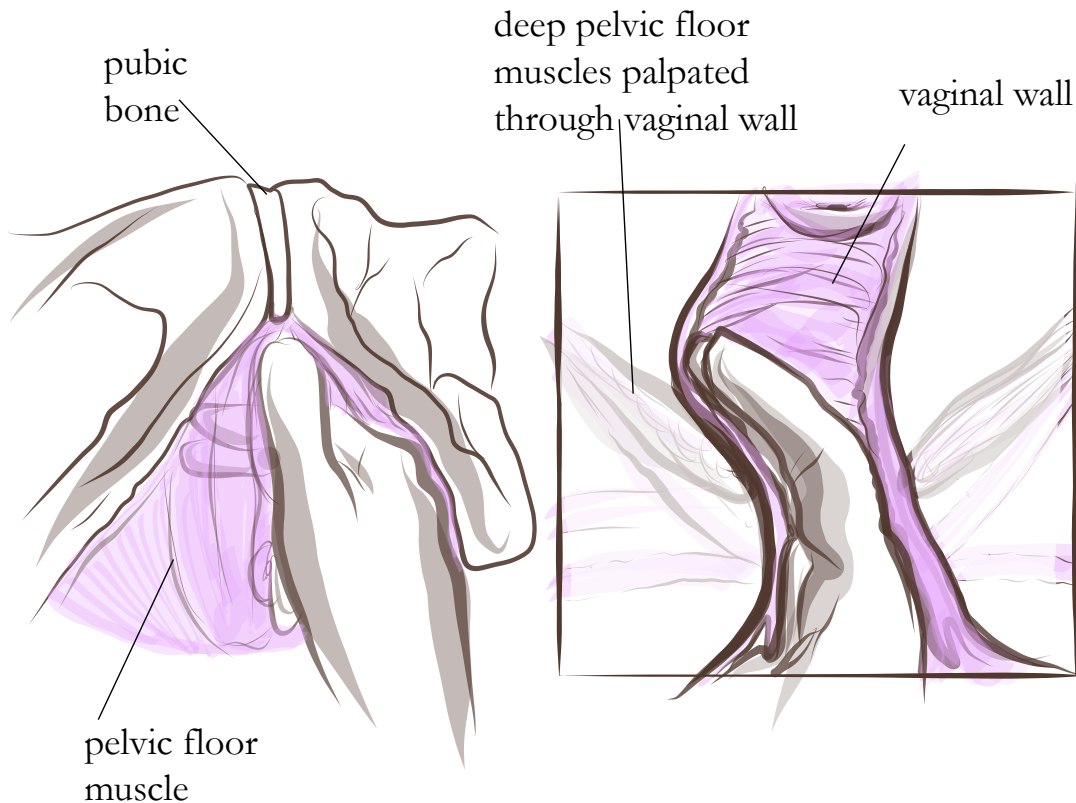
Gently rest the first finger at the vaginal opening and pause for a moment. Allow the patient to relax her muscles and breathe comfortably. Then, gently insert the first finger into the vagina, and allow it to rest inside without pressing on the tissues. Ask the patient to take several deep breaths and to relax as much as possible. It is helpful to place the non-examining hand on the low abdomen, and ask the patient to breath into the abdomen, so that your hand rises gently on the inhalation and descends on the exhalation.

Use the pad of the finger to palpate and apply gentle pressure. Do not use the fingertips or poke into the tissues.

Begin by locating the pubis (to either side of “12 o’clock” on an imaginary clock face) and then palpating the muscles superficially (around the depth of your first knuckle) and then deeper (at and beyond the depth of your 2nd and 3rd knuckles), checking anteriorly (front), laterally (side), and posteriorly (back). Note any areas of pain or scarring, as well as any other qualities of the tissues (tight/contracted, loose/lax, etc).

Remove gloves. Move to the opposite side of the table and set up for the same examination on the other side. Put on clean gloves and begin as described above.

In your documentation, describe differences between left and right sides.



Muscle Action Component:

Patient instruction: I am going to keep my finger in the vagina, but will not be pressing on any muscles at this time. Is that okay? (If “yes”, continue) I want you to try to relax as you let your inhalation move into your belly and your pelvis, as if you are allowing your vagina or rectum to open.

NOTE to clinicians:

This connection of the pelvic floor to breathing can be subtle for you and for the patient to detect, especially when just beginning. You will decide what feels like “close enough”, and when it is time to proceed to the next cue and the next component of the examination.

Patient instruction, continued:

When you feel ready, as you exhale, squeeze your pelvic floor muscles (the muscles of your vagina and rectum) as if you are holding back urine or gas. Release your muscles at the end of your exhalation.

NOTE to clinicians:

Change the specific cue for “exhale”, as needed; such as “blow out through your lips as if you are blowing out a candle,” or “make a kiss face and blow out through pursed lips.”

You can also have them repeat this sequence several times. You are trying to appreciate the range of movement and coordination (right/left and front/back) of the pelvic floor as the patient contracts/squeezes and relaxes/lengthens the muscles. Note this in the chart :

Pelvic Muscle Exam	RIGHT			LEFT		
	Absent	Weak	Normal/ Strong	Absent	Weak	Normal/ Strong
Muscle Contraction	Absent	Weak	Normal/ Strong	Absent	Weak	Normal/ Strong
Endurance	Poor (0-2 sec)	Moderate (3-6 sec)	Excellent (7-10 sec)	Poor (0-2 sec)	Moderate (3-6 sec)	Excellent (7-10 sec)
Muscle Relaxation	Absent	Delayed	Complete	Absent	Delayed	Complete

Muscle Relaxation: Absent = No relaxation of contraction is felt; muscle is tonic/in spasm;

Delayed = Relaxation of contraction is felt, but is slow to occur;

Complete = Relaxation of contraction is felt and occurs within 1-2 seconds

References

1. Haylen BT, De Ridder D, Freeman RM, et al. An International Urogynecological Association / International Continence Society Joint Report on the Terminology for Female Pelvic Floor Dysfunction. *Neurourol Urodyn*. 2010;29:4-20. doi:10.1007/s00192-009-0976-9.
2. Carrière B, Feldt CM. *The Pelvic Floor*. New York: Thieme; 2006.



Section 5: Physiotherapy Treatment Techniques

Section 5 provides sample treatment protocols based on the patient interview and findings of the physical examination detailed in Section 4. The treatment techniques included in this section serve as guidelines and may be adjusted according to the individual needs of each woman. It is important to evaluate how each patient responds to treatment, and to alter the treatment plan if symptoms worsen or do not improve. This section includes patient education and behavioral modifications for optimal pelvic health, exercise suggestions for specific physical impairments or symptoms, and descriptions of manual therapy (massage) techniques. Information on healthy movement and body mechanics for optimal pelvic floor health is also included. While these guidelines are very important after pelvic surgery, all women may benefit from practicing good posture and healthy movement to minimize the strain on the pelvic floor. Appendix 4 also provides a summary table of treatment options based on the physical impairments associated with fistula, pelvic organ prolapse and general maternity care.

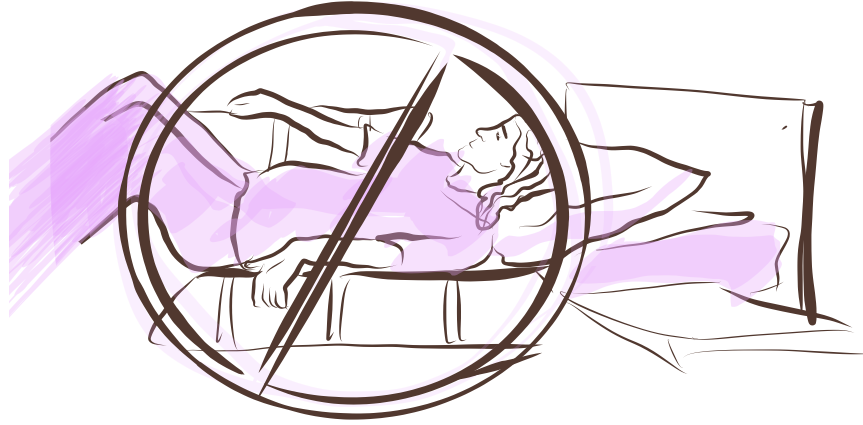
Functional mobility and body mechanics

The following pages provide information about how to move about during daily tasks in ways that will reduce pressure and strain on the pelvic floor and low back. These are general guidelines that may be followed by everyone.

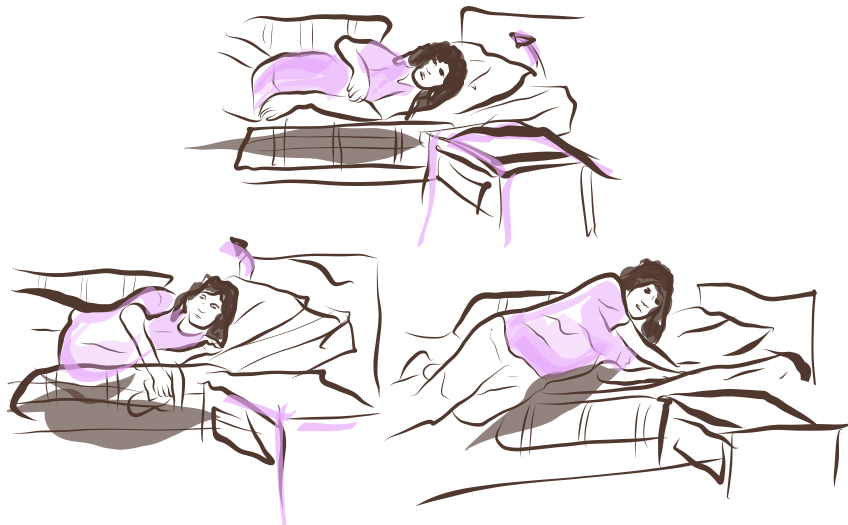
It is very important for women who have had surgery to repair fistula, pelvic organ prolapse or other pelvic surgery to follow these guidelines. This will help to protect the surgical repair. For women with urinary or anal incontinence, pelvic organ prolapse and for women who are early postpartum, it is also important to follow these guidelines.

Practicing good body mechanics during daily activities, such as moving in and out of bed, sitting, lifting, carrying, cooking, and farming will help to maintain the health and function of the pelvic floor, prevent injury, and reduce symptoms.

MOVING IN AND OUT OF BED



- DO NOT sit up directly from lying on your back by pulling or pushing with your arms. This movement increases strain on your back and pelvic floor.
- DO bend your knees, roll to one side, and gently press up to a sitting position. If you are on a raised bed, let your legs hang off the edge of the bed.
- DO NOT hold your breath.
- DO exhale, blow out gently, count out loud, hum softly or talk out loud as you move.
- Following these guidelines for movement will decrease the pressure and strain on your back and pelvic floor. If you have had surgery, this will reduce pain and protect the surgical repair.

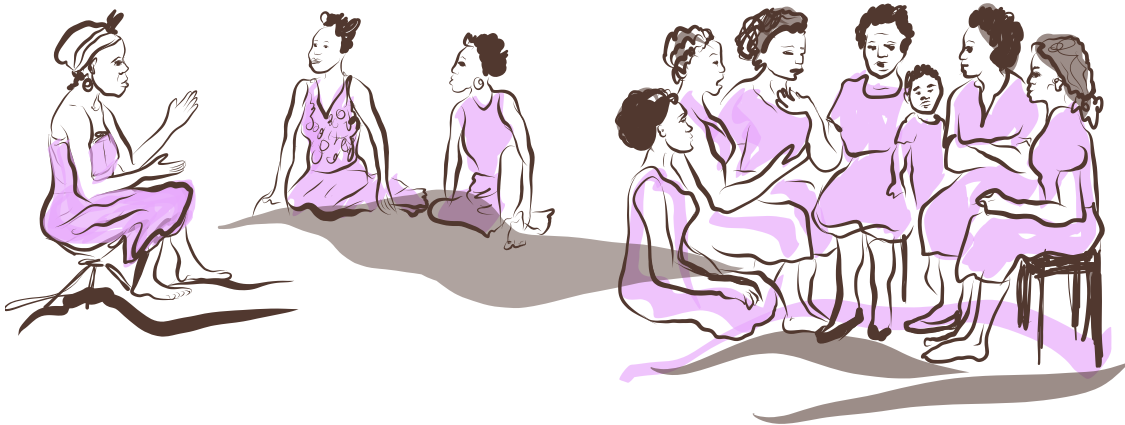


SITTING

- DO NOT sit with your legs straight out in front of you and with your back slumped over for long periods of time.
- This position reduces blood flow to the pelvis and lower abdomen (lower belly or stomach), and this makes it more difficult for you to heal.



- DO sit on the floor with your legs crossed or sit on a stool or bench and keep your back straight.
- This aids the healing process and will help keep your pelvic floor healthy.

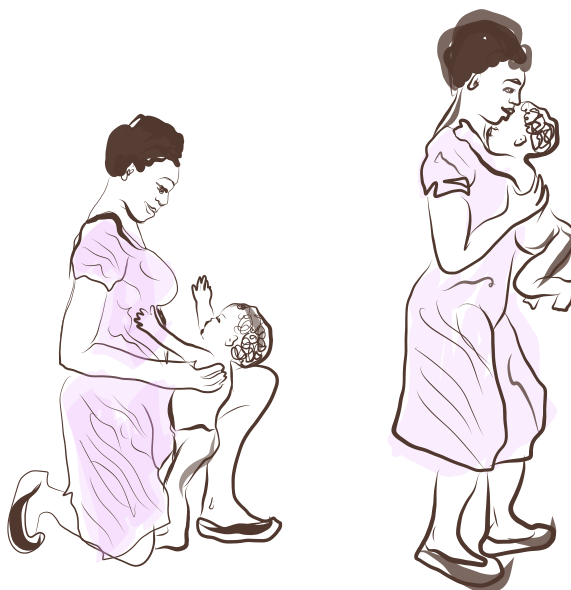


LIFTING

- DO NOT bend forward and reach far in front of you when lifting.
- This position increases pressure and strain on your neck, back and hips.



- DO squat, kneel or lunge forward when picking something off the ground.
- DO hold weight close to your body. This decreases strain and pressure on your back and pelvic floor.



CARRYING

- DO NOT carry very heavy loads for 3 months after surgery. If you have not had surgery but are having pelvic floor symptoms or have just delivered a baby, it is also important to avoid heavy lifting until your symptoms improve or you have recovered.
- Carrying very heavy things after surgery places too much pressure on your pelvic floor and makes it more difficult for you to heal.



- You may carry smaller things, like your baby or a small market bag.



HOUSEWORK & FARMING: SQUATTING

- DO NOT bend over for long periods to tend crops, sweep or cook. Bending and reaching forward places a lot of pressure and strain on your pelvic floor and back.



- DO squat or kneel close to the ground. This decreases pressure and strain on your neck, back and pelvic floor.



HOUSEWORK & FARMING: GOOD BODY POSITION

- DO NOT stand with feet very close together.
- This decreases your stability (balance) and places pressure and strain on your back.



- DO stand with your feet hip distance or a little wider apart. This improves strength and stability and decreases strain on your back and pelvic floor.



Suggested guidelines for drinking and voiding after fistula surgery

The following pages provide suggestions for helping women to recover healthy bladder habits following a fistula repair. These guidelines may also be helpful for any woman with problems of urinary frequency – either urinating too frequently, or not frequently enough. We suggest a strict and progressive fluid and urination schedule for women with fistula. This is because of the severity of damage to the pelvic floor and pelvic organs associated with this injury. Women without fistula, but with problems of frequency, typically do benefit from a fluid and urination schedule. These women may be taught to manage and progress their schedule at home.

Bladder and Fluid Schedule

A woman who has had a fistula for a long time may have lost awareness of her body's urge to urinate. She may have stopped going to the toilet altogether and lost this daily habit of using the toilet. After her fistula is repaired, she may require reminders to go to the toilet at regular intervals. She may be suffering from incontinence, simply because she does not have these habit, and/or because her body signals have been damaged.

It is advisable to place women on a bladder and fluid schedule after the catheter is removed. While the schedule may be tailored to each woman, the following guidelines may be followed by all women post-operatively.

Timed or planned voids (Timed urination)

- Immediately after catheter removal, instruct the patient to use the toilet every hour during the day. She may attempt to urinate, even if she does not have the urge to do so. She does not need to wake at night to urinate, unless she has the urge.
- If available, a clock or stopwatch may be helpful to remind her to use the toilet every hour. Nursing or other health care staff may help to monitor and remind her when it is time to void. Women may use a counting system, such as tying a string on her bed rail or placing a stone in a container, each time she uses the toilet to track the number of times she voids each day.

After 5-7 days, she increases the time between voids by 15 minutes.

Week 1 = 60 minutes, Week 2 = 75 minutes, Week 3 = 90 minutes ...

In this way, she may train her bladder to void every 2-4 hours.

- A voiding schedule may be helpful for women with urgency and increased frequency, and also for women with decreased urinary frequency and those who do not have the urge to urinate regularly.

Fluid schedule

- It is important to stay hydrated by drinking enough water or fluids. Drinking large quantities of water at one time is not recommended because the bladder fills very quickly, and may lead to increased urinary urgency, frequency and urinary incontinence.
- Advise women to drink water regularly throughout the day. This may be timed with the voiding schedule, by encouraging women to drink a cup of water after going to the toilet. She may track how many cups of water she drinks, similar to how she tracks the number of times she urinates. Women who have

had fistula surgery are often advised to drink 2-3 L of water per day; this equals approximately 250 milliliters every hour.

- Advise women to decrease water intake 2 hours before going to sleep at night to avoid nocturia or nocturnal enuresis.

Triple voiding

- Triple voiding is a technique that may be beneficial for women with incomplete voiding or residual urine remaining in the bladder after urination). When the patient feels she needs to urinate, she is encouraged to try to empty the bladder 3 times within 10-15 minute period.

For example, she urinates the first time as much as possible. Then, she stands up and moves about for 3-5 minutes before visiting the toilet to try to empty the bladder again. She repeats this a third time.

Exercise prescription and sample exercise protocols

The following pages include sample exercise protocols, which may be used for specific physical impairments or symptoms. These are meant as guidelines. Some women may be able to practice all of the exercises in one protocol and do well in a group exercise class. Other women may require more time to learn these exercises, may require individual attention to correctly perform an exercise, or may need modifications to the protocol.

The exercises chosen are based on clinical experience and available research on physical impairments that are commonly seen among women who have pelvic floor dysfunction, such as urinary or anal incontinence, pelvic pain, pelvic organ prolapse, or other pelvic trauma, including obstructed labor and sexualized violence.

Stage of Tissue Healing

An understanding of tissue healing after an injury or surgery is essential for appropriate exercise prescription. The stages of recovery described below provide a framework within which the clinician can determine the type and intensity of exercise.¹ Note the variability within each stage—each patient’s recovery is influenced by many factors, including age, general health and fitness, and severity of the injury:

1. Acute or Inflammatory Phase
 - 1-7 days from the injury or surgery
 - Pain, swelling, redness, fatigue
2. Sub-acute Phase
 - 8-21 days from the injury or surgery
 - Decrease in pain & inflammation, weakness
3. Chronic Phase
 - 1-9 months from the injury or surgery
 - Often low-grade inflammation signs present, such as swelling & pain with exercise
 - May have weakness and decreased endurance¹

Acute management principles: POLICE²

P rotection	protect the injured tissue
O ptimal	load the injured tissue with gentle movement
L oading	(breathing, walking, range of motion)
I ce	use cryotherapy (ice pack, ice bath, cool washcloth)
C ompression	apply gentle compression with an elastic bandage or manual pressure
E levation	elevate the injured part above the heart to reduce swelling

General exercise and rehabilitation management principles for pelvic health

In the following pages, greater details about specific exercises will be provided. Below is a general overview of important components of any exercise program for a woman who has undergone pelvic surgery or recently delivered a baby. As always, these are guidelines, and a thorough evaluation will help to guide individual treatment.

Pelvic floor muscle exercise

- Begin post-operatively (or after delivery) during acute to early sub-acute stage
- Sub-maximal pelvic floor muscle exercise while lying in bed
- Breathing exercises to load the pelvic floor without straining the healing tissues

Progressive training of targeted muscles

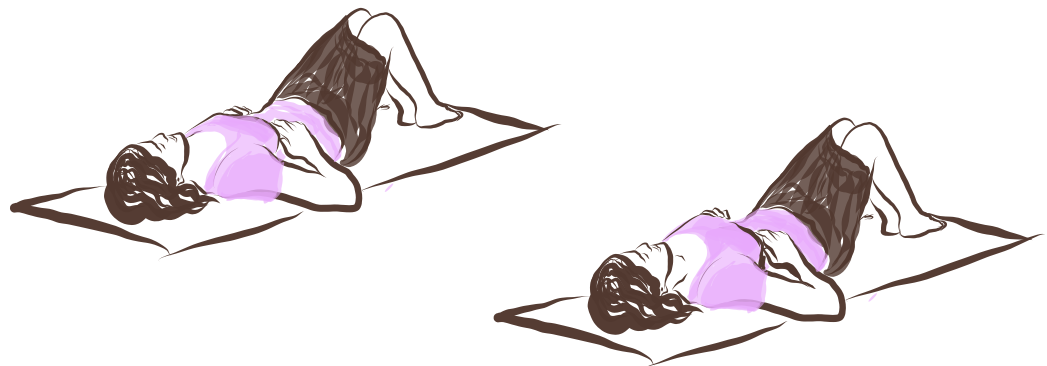
- Begin during sub-acute stage
- Sub-maximal to maximal pelvic floor muscle exercise
- Exercises for the abdominal, hip and low back muscles
- Stretching areas of scar tissue and muscle and joint tightness (or contracture)

Progressive cardiovascular activity

- Begin during sub-acute stage and continue
- Aerobic or cardiovascular exercise increases blood circulation to the injured tissues and promotes tissue healing

Breathing Exercises

- Recall that the movement of the pelvic floor is coordinated with the movement of the respiratory diaphragm. Learning this breath sequence will help to restore movement and function of the pelvic floor and is beneficial for all women.
- Breathing exercises will encourage relaxation and will help to decrease pain or discomfort. It may be beneficial to teach these exercises BEFORE the internal pelvic examination and to encourage the patient to breathe deeply throughout the internal examination to reduce discomfort or anxiety she may be experiencing.
- During this exercise, the abdomen rises and the ribcage expands outwards during the INHALATION. The abdomen draws in and the ribcage narrows during EXHALATION.



- It is important to observe the movement of the chest and abdomen during this exercise. You may notice strain in the upper chest and neck muscles as the patient inhales and/or the abdomen push out forcefully on the exhale. This requires that you correct the breathing pattern. Below are some verbal cues you may give to improve breath sequence:

- o **Breathe or sniff in through the nose. Blow out gently through pursed lips (make a kissing motion with the lips to encourage pursed lips).**
- o **Make a sound, such as ‘choooo,’ or hum out loud on the EXHALE.**

- o **Blow out through a straw or narrow tube. Inhale through the nose (not through the straw or tube).**
 - o **Place hands on the abdomen or lower ribs, and feel the movement up and out on the INHALE and down and in on the EXHALE.**
- Breathing exercises can be very difficult to instruct and for the patient to learn and practice. Ensure that the patient is not holding her breath or overusing her upper respiratory and neck muscles. Be patient and persistent when teaching this exercise!

Pelvic Floor Muscle Exercises

Pelvic floor muscle exercises are the first treatment option for women with pelvic muscle weakness after delivering a baby or after pelvic surgery, for women with urinary incontinence, anal incontinence and pelvic organ prolapse. Women who have pelvic pain or significant vaginal fibrosis or stenosis may need to follow the exercise protocol included later in this chapter BEFORE starting to practice pelvic floor muscle exercises, as this may worsen their symptoms.

Before instructing this exercise, it is very important to explain the anatomy and function of the pelvic floor (Section 1). Use anatomic models or diagrams to help her to visualize the pelvic floor. Use a mirror to help her to see her own external anatomy, and to become more comfortable with this part of her body. After she understands the function of the pelvic floor and the desired movement – squeeze and lift, up and in... relax and lengthen, down and out – then, you may begin to instruct the exercise.

You may use digital biofeedback by gently palpating the pelvic floor muscles with 1-2 fingers inserted into the vagina and feeling for the movement of the pelvic floor as she contracts. If the patient is uncomfortable with internal palpation, try placing 1-2 fingertips on the perineum, and prompt the patient to contract her muscles by pulling up and away from your finger. You may also encourage the patient to place her own hand over the perineum to feel for the movement of the pelvic floor.

Patient instructions: Squeeze and lift, as if you are trying to stop the flow of urine or hold back gas. Do not hold your breath. Exhale, as you squeeze and lift. Inhale, as you relax and lengthen.

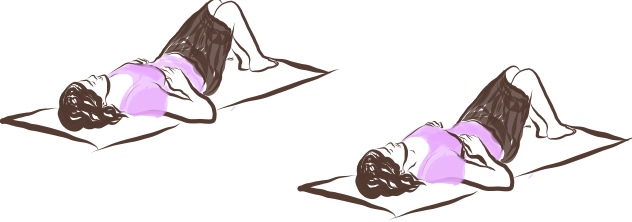






Once she is able to perform the movement, then she may practice in two different ways:

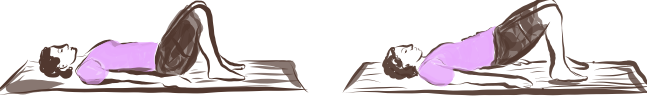
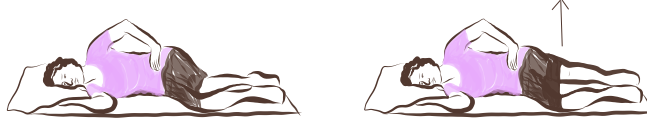


- (1) Endurance contractions: Hold the contraction for 5-10 seconds. Repeat 5-10 times. Pause between each contraction to ensure the pelvic floor muscles have returned to their resting position. The number of contractions will vary based on each woman's muscle strength, endurance and coordination.
- (2) Repeated, fast contractions: Perform quick, repeated muscle contractions for 1 second each. *Contract, relax, contract, relax, contract, relax*. Practice in series of 5 repetitions.

Clearly explain to the patient that it is NOT necessary or beneficial to maintain a pelvic floor contraction during all activities. In fact, contracting the pelvic floor muscles for a very long period of time can lead to greater dysfunction. She must learn to coordinate the pelvic floor muscle contraction with activities that increase pressure on the pelvic floor and increase symptoms, such as incontinence or pelvic pressure, in the case of prolapse. It is beneficial to practice pelvic floor muscle exercises in standing and with functional movements– exhale, squeeze and lift the pelvic floor as she lifts a bucket, as she moves from sitting to standing

Exercises for flexibility, strength and pelvic health

This series of exercises may be beneficial for all women who are able to move about independently. It requires women to be able to move on and off the floor and to stand without assistance. These may be practiced pre-operatively and post-operatively. If a catheter is in place post-operatively, it is advised to wait until the catheter is removed.

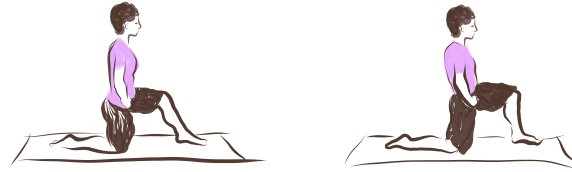
<p>Breathing exercise</p> <ul style="list-style-type: none"> · Lie on your back with your hands on your ribcage, fingers pointing inward, knees bent, feet resting flat on the floor. · Slowly inhale, expanding your ribcage so that your fingers slide apart. · Exhale, allowing your ribcage to narrow and your fingers slide closer together. · It may be helpful to make a sound as you blow out through your mouth, such as ‘chooooo.’ You may also practice blowing through a straw or narrow tube 	<p>Practice 10 breaths.</p> 
<p>Trunk rotation</p> <ul style="list-style-type: none"> · Lie on your back with knees bent and feet resting on the floor. · Slowly rotate your knees down towards the floor until you feel a stretch in your trunk and hold. Repeat on opposite side. · Keep your back and shoulders in contact with the floor. 	<p>Hold 10 seconds. Repeat 10 times on each side.</p>  
<p>Knee to chest stretch</p> <ul style="list-style-type: none"> · Lie on your back with your legs straight. · Slowly lift one leg and hug your knee toward your chest until you feel a gentle stretch in your low back and hold. · Keep you back relaxed and your opposite leg flat on the floor. 	<p>Hold 30 seconds. Repeat 3 times on each side.</p>  
<p>Pelvic floor stretch</p> <ul style="list-style-type: none"> · Begin lying on your back with your legs bent and feet resting on the ground. · Lift your legs off the ground with your knees bent, support the knees with your hands & let them fall outward, relaxing your pelvic floor muscles. · Make sure to continue breathing evenly. This should be a gentle stretch. 	<p>Hold 30-60 seconds. Repeat 2 times.</p>  

<p>Bridge</p> <ul style="list-style-type: none"> · Begin lying on your back with your knees bent and feet resting flat on the floor. · Lift up through your pelvis as you exhale. Then, slowly lower back down as you inhale. 	<p>Repeat 10-20 times.</p> 
<p>Sidelying hip external rotation</p> <ul style="list-style-type: none"> · Lie on your side with knees bent and your hips and shoulders stacked. · Raise your top knee away from the bottom one, then slowly return to the starting position. · Do not roll your hips forward or backward during the exercise. 	<p>Repeat 10-20 times on each side.</p> 
<p>Cat-cow</p> <ul style="list-style-type: none"> · Begin on all fours with arms directly under your shoulders and knees directly under hips. · INHALE through the nose, look up at the ceiling and arch your back, reaching the tail bone up. Let the belly relax. · EXHALE through the mouth, look down and round the back, reaching the tail bone down to the floor. · Keep the elbows bent slightly and shoulders down and away from the ears. 	<p>Repeat 10 times.</p>  <p style="text-align: center;">exhale inhale</p>
<p>Child's pose</p> <ul style="list-style-type: none"> · Begin on all fours. · Sit back on your heels, keeping your hands on the ground in front of you. · Inhale, letting your belly expand, then exhale, and repeat. · You may practice pelvic floor muscle exercises in this position: EXHALE (blow out through the mouth) as you gently squeeze up and in. INHALE (through the nose) and relax. Take a breath between each to make sure you have relaxed the pelvic floor completely. This position helps with awareness and coordination of the pelvic floor muscles. 	<p>Hold 30-60 seconds. Repeat 2 times.</p> 

Half kneel hip flexor stretch

- Begin in a half kneeling position with one knee bent in front of your body. Hold on to the wall or a chair for balance if needed.
- Gently push your hips forward. You should feel a stretch in the front of your hip.
- Make sure to keep your hips facing forward and back straight during the exercise.

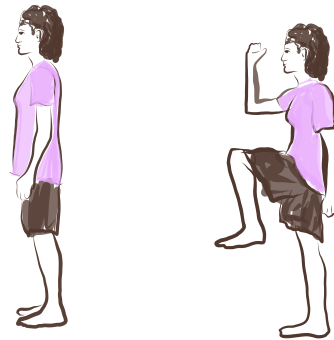
Hold 30 seconds. Repeat 3 times on each side.



Standing march

- Begin in a standing upright position.
- Raise one knee up toward your chest, hold briefly, then slowly lower your leg back to the starting position and repeat.
- Make sure to keep your chest upright and squeeze the gluteal muscles on your stance leg to help maintain your balance.
- Hold on to the wall or a chair for balance if needed.

Hold 5-10 seconds. Repeat 10-20 times on each side.



Exercises for stress urinary incontinence

Women with stress urinary incontinence will benefit from following the [Pelvic floor muscle exercise](#) instructions. It may be necessary to schedule one or more individual treatment sessions, in order to evaluate the pelvic floor muscles and perform digital biofeedback or visual inspection to ensure she is performing the exercises correctly. Once she is able to do so, she may practice the exercises on her own, at least 3 times per day. She may begin practicing these exercises lying down, and progress to standing position.

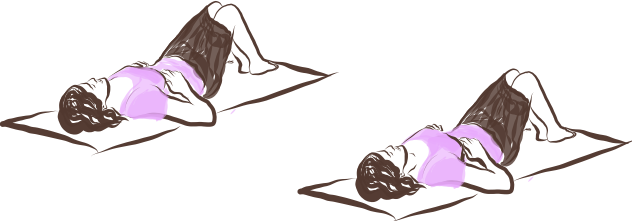
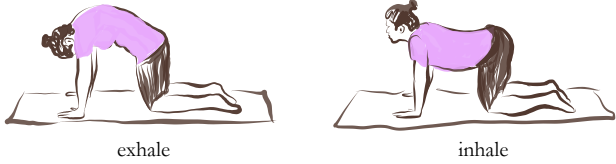
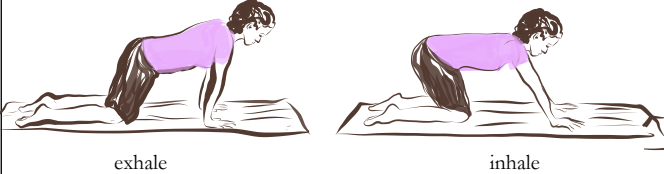
The [Exercises for flexibility, strength and pelvic health](#) protocol will also benefit women with stress urinary incontinence. This program combines flexibility and strengthening exercises, that will improve the function of the team of muscles – the pelvic floor, abdominal and low back muscles and the respiratory diaphragm.

Women with stress urinary incontinence must also be instructed on techniques for [Functional mobility and body mechanics](#) as described at the beginning of this chapter. The pelvic floor muscles will function better during daily activities by breathing comfortably (avoid holding the breath), maintaining good posture and moving the body in ways that decrease the pressure or strain on the pelvic floor.

It is important for women to understand the importance of daily exercises, in order to improve symptoms of stress urinary incontinence. Improvements may be seen within the first few weeks of regular exercise. Once symptoms improve, women must continue with regular exercise, in order to maintain these improvements.

Exercises for pelvic pain, urinary urgency, and urge urinary incontinence

Typically, we do not begin treatment of pelvic pain, urinary urgency or urge urinary incontinence with pelvic floor muscle strengthening exercises as described earlier in this section. Often, these women have tight, contracted or overactive pelvic floor muscles. This series of exercises will help to restore flexibility and range of motion and of the hips and pelvis and may help to decrease pain.

<p>Breathing exercise</p> <ul style="list-style-type: none"> · Lie on your back with your hands on your ribcage, fingers pointing inward, knees bent, feet resting flat on the floor. · Slowly inhale, expanding your ribcage so that your fingers slide apart. · Exhale, allowing your ribcage to narrow and your fingers slide closer together. · It may be helpful to make a sound as you blow out through your mouth, such as ‘chooooo.’ You may also practice blowing through a straw or narrow tube 	<p>Practice 10 breaths.</p> 
<p>Cat-cow</p> <ul style="list-style-type: none"> · Begin on all fours with arms directly under your shoulders and knees directly under hips. · INHALE through the nose, look up at the ceiling and arch your back, reaching the tail bone up. Let the belly relax. · EXHALE through the mouth, look down and round the back, reaching the tail bone down to the floor. · Keep the elbows bent slightly and shoulders down and away from the ears. 	<p>Repeat 10 times.</p> 
<p>Rocking</p> <ul style="list-style-type: none"> · Begin on all fours with arms directly under your shoulders and knees directly under hips. · Slowly rock back and forth, shifting your weight between your arms and your legs. · INHALE as you rock backwards, lengthening the pelvic floor. EXHALE as you rock forward · Make sure to keep your back straight and chin tucked during the exercise. Maintain equal weight distribution between both sides of your body. 	<p>Repeat 10 times.</p> 

Child's pose

- Begin on all fours.
- Sit back on your heels, keeping your hands on the ground in front of you.
- Inhale, letting your belly expand, then exhale, and repeat.
- You may practice very gentle pelvic floor muscle exercises in this position:
EXHALE (blow out through the mouth) as you gently squeeze up and in. INHALE (through the nose) and relax. Take a breath between each to make sure you have relaxed the pelvic floor completely. This position helps with awareness and coordination of the pelvic floor muscles.

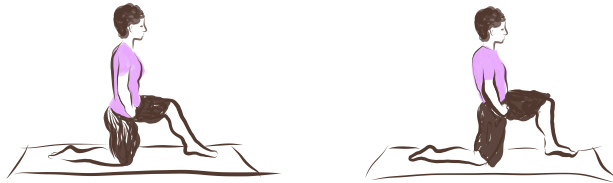
Hold 30-60 seconds. Repeat 2 times.



Half kneel hip flexor stretch

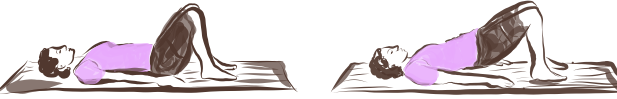

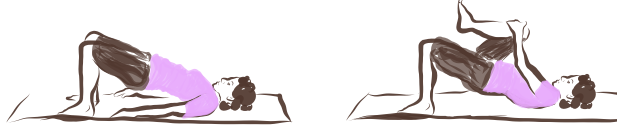

- Begin in a half kneeling position with one knee bent in front of your body. Hold on to the wall or a chair for balance if needed.
- Gently push your hips forward. You should feel a stretch in the front of your hip.
- Make sure to keep your hips facing forward and back straight during the exercise.

Hold 30 seconds. Repeat 3 times on each side.



Exercises for anal incontinence


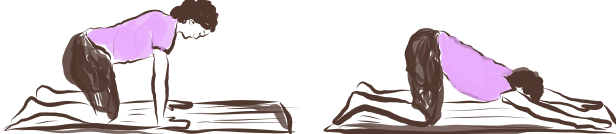
Women with anal incontinence will benefit from following the [Pelvic floor muscle exercise](#) instructions. It may be necessary to schedule one or more individual treatment sessions, in order to evaluate the pelvic floor muscles and perform digital biofeedback or visual inspection to ensure she is performing the exercises correctly. It will be important to monitor and to give verbal cues to focus on the anal sphincter contraction, as it is often damaged or weakened in women with anal incontinence. In addition to the pelvic floor muscle exercises, women with anal incontinence will benefit from the following strengthening exercises, which can help to improve the strength and function of the pelvic floor and to decrease symptoms.

<p>Bridge</p> <ul style="list-style-type: none"> · Begin lying on your back with your knees bent and feet resting flat on the floor. · Lift up through your pelvis as you exhale. · Then, slowly lower back down as you inhale. 	<p>Repeat 10-20 times.</p> 
<p>Sidelying hip external rotation</p> <ul style="list-style-type: none"> · Lie on your side with knees bent and your hips and shoulders stacked. · Raise your top knee away from the bottom one, then slowly return to the starting position. · Do not roll your hips forward or backward during the exercise. 	<p>Repeat 10-20 times on each side.</p> 
<p>Single leg bridge</p> <ul style="list-style-type: none"> · Begin lying on your back with your knees bent, feet on the floor. Lift one leg and hug your knee toward your chest · Exhale and slowly lift your hips off the floor into a bridge position. · Lower to the starting position, and repeat. 	<p>Repeat 10-20 times on each side.</p> 
<p>Heel raises</p> <ul style="list-style-type: none"> · Begin in a standing upright position with your hands resting in front of you on a wall. · Slowly raise your heels off the ground. Lower. Repeat. · You may combine pelvic floor muscle exercise. Squeeze and lift the pelvic floor, raise the heels, hold 5 seconds. Then, lower, relax, repeat. 	<p>Repeat 10-20 times.</p> 

Exercises for pelvic organ prolapse

Women with pelvic organ prolapse will benefit from following the [Pelvic floor muscle exercise](#) instructions. It may be necessary to schedule one or more individual treatment sessions, in order to evaluate the pelvic floor muscles and perform digital biofeedback or visual inspection to ensure she is performing the exercises correctly. Once she is able to do so, she may practice the exercises on her own, at least 3 times per day.

Women with pelvic organ prolapse may practice one or both of the exercises below. These positions will relieve symptoms of pelvic pressure. Women may find it helpful to practice pelvic floor muscle exercises in these positions.

<p>Supported bridge</p> <ul style="list-style-type: none">· Begin lying on your back with your knees bent and feet resting flat on the floor.· Lift the hips and place a small cushion, pillow or blankets under the pelvis.· Hold this position. Practice breathing and focus on the movement of the pelvic floor.· You may perform pelvic floor muscle exercises. Exhale, squeeze and lift, up and in. Inhale, relax and lengthen, down and out. Repeat up to 10 repetitions.	<p>Hold 2-5 minutes.</p> 
<p>Modified child's pose</p> <ul style="list-style-type: none">· Begin on all fours.· Move your hands out in front of your body and bend your chest down toward the floor. You may rest the forearms on the ground. Keep the hips raised over the feet, so that the pelvis is higher than the chest.· Hold this position. Practice breathing and focus on the movement of the pelvic floor.· You may perform pelvic floor muscle exercises. Exhale, squeeze and lift, up and in. Inhale, relax and lengthen, down and out. Repeat up to 10 repetitions.	<p>Hold 1-2 minutes.</p> 

The [Exercises for flexibility, strength and pelvic health](#) protocol will also benefit women with pelvic organ prolapse. This program combines flexibility and strengthening exercises, that will improve the function of the team of muscles – the pelvic floor, abdominal and low back muscles and the respiratory diaphragm.

Women with pelvic organ prolapse must also be instructed on techniques for **Functional mobility and body mechanics** as described at the beginning of this chapter. The pelvic floor muscles will function better during daily activities by breathing comfortably (avoid holding the breath), maintaining good posture and moving the body in ways that decrease the pressure or strain on the pelvic floor.

It is important for women to understand the importance of daily exercises, in order to improve symptoms. Improvements may be seen within the first few weeks of regular exercise. Once symptoms improve, women must continue with regular exercise, in order to maintain these improvements. Physiotherapy will never cure the prolapse but following these guidelines will help to manage the symptoms of prolapse and may prevent the prolapse from worsening.

Cardiovascular fitness: Post-operative exercise recommendations

Aerobic exercise is an important part of recovery from surgery. In addition to being important for overall health and wellness, aerobic exercise helps to promote improved healing after surgery. Aerobic exercise includes any exercise that increases your heart rate and respiratory rate. Examples of aerobic exercise include walking, running, biking, dancing and swimming.

These types of exercise have been shown to improve outcomes after major surgeries, including abdominal and pelvic surgeries.^{3,4} For example, exercise can decrease risk of complications such as blood clots and breathing problems which can develop after a major surgery.³ Aerobic exercise prevents weakness and a decline in mobility after surgery, which contributes to improved patient outcomes.^{3,5} In fact, research shows that patients who participate in aerobic exercise after a major surgery have more successful surgeries, better health outcomes after surgery and are less likely to need additional surgeries or medical procedures.⁴ Multiple studies have shown that having a planned exercise program for patients to follow after surgery helps them to be more active and spend less time sitting.^{3–5} Because sitting can decrease blood flow to the pelvis and impair healing, it is especially important for patients to reduce time spent sitting after pelvic surgery.

A walking program is a great way to create an inclusive exercise program that patients of different ages and abilities can enjoy and use to improve their surgical outcomes. A walking program can be implemented on a treadmill or walking outdoors. It is important to help patients plan and implement a program that is sufficiently challenging and of the right duration. Because each person has a different baseline activity level and level of physical fitness, everyone will require different intensities of walking to properly increase their heart rate and respiratory rate to get the most benefits out of a program. Using a patient's estimated maximum heart rate (HR max) to calculate a target heart rate or using Rated Perceived Exertion (RPE) are two great ways you can determine whether a patient is getting the right level of challenge from her program.^{6,7}

TARGET HEART RATE⁶

Heart rate (HR) is measured in beats per minute (bpm). To measure HR, it is necessary to have a watch or clock with a second hand or a timer or stopwatch that displays 'seconds.' Use 2 fingers to locate the pulse at the wrist or neck. At the wrist, lightly press 2 fingers of one hand on the opposite wrist, just below the base of the thumb. At the neck, lightly press the side of the neck, just below the jaw. Count the number of beats in 15 seconds, and multiple by 4 to calculate the numbers of beats per minute. You may wish to record the resting HR before starting any exercise. This will give a baseline value, so that you can monitor how the HR changes with exercise. Normal resting HR ranges 60-100 bpm.



HR max is an estimate of a person's maximum heart rate and is calculated based on a person's age. The formula for HR max = $220 - \text{Age}$

Example:

For a 34-year-old woman, HR max = $220 - 34 = 186$ bpm

Use HR max to set target heart rate during exercise. To achieve cardiovascular benefit, exercise that raises the HR to 50-85% of HR max is required.

Example:

For a 34-year-old woman, HR max = 186 bpm,

Target HR = 50% of (186 bpm) = 93 bpm

Target HR = 85% of (186 bpm) = 158 bpm

The exercise goal for this woman is to achieve a HR of 93-158 bpm for 20-30 minutes while walking.

Note: Increasing walking speed and walking on hills, inclines, and up and down stairs will increase the HR. Decreasing walking speed and walking on flat, level surfaces will decrease the HR.

RATED PERCEIVED EXERTION⁷

Another way to monitor patients' workload with exercise is using a Rated Perceived Exertion Scale (RPE). This scale asks patients to rate how hard their bodies are working while exercising. ⁴ The scale ranges from 0 (no exertion) to 10 (very, very hard exertion).

RATE OF PERCEIVED EXERTION SCALE

Level of exertion	
0	None
0.5	Just noticeable
1	Very light
2	Light
3	Moderate
4	Somewhat heavy
5	Heavy
6	
7	Very heavy
8	
9	
10	Very, very heavy

Signs of exertion include shortness of breath and fatigue. Patients should be encouraged to walk at an RPE of 3-4, indicating a 'moderate' or 'somewhat heavy' level of exercise. If they rate their level of exertion below 3, the exercise is likely not intense enough to get the benefits of aerobic exercise. If they rate their level of exertion above 6, the exercise is too intense to sustain for long enough periods to get a sufficient benefit.

Whether you use HR or RPE to measure the intensity of a workout, you should encourage patients to engage in at least 20-30 min of moderate intensity exercise (either 65-80% of HR max or 3-5 RPE) on 5 days per week.⁶

In addition to these benefits of exercise following pelvic surgery, there is a lot of research showing that regular aerobic exercise improves physical and psychological health. Evidence shows that people who participate in at least 20 min of aerobic exercise, at least 5 days per week are less likely to experience depression, anxiety and

mood changes ³. Exercise has also been shown to be highly beneficial for overall physical health, including improved heart health, muscle and bone health and decreased likelihood of having chronic illnesses such as diabetes and hypertension ³ among many other benefits. It is important to encourage patients to continue their aerobic walking programs even after they have recovered from surgery to maintain and improve overall health and wellness.

Manual therapy and massage techniques

The following pages provide a description of techniques that may be used to improve the mobility of scar tissue/fibrosis or adhesions in the abdomen and pelvis. These techniques may be applied by a physiotherapist or other trained clinician, and they may also be taught to the patient, so that she can help herself to move and feel better. It is important to consider the stages of tissue healing when applying these techniques. An incision must be closed and healed before using any aggressive massage techniques. These techniques may be helpful for women who have had a Cesarean section, episiotomy or other perineal incision or tearing, and any abdominal or pelvic scarring related to surgery or fistula.

Massage Techniques for Abdominal Scars

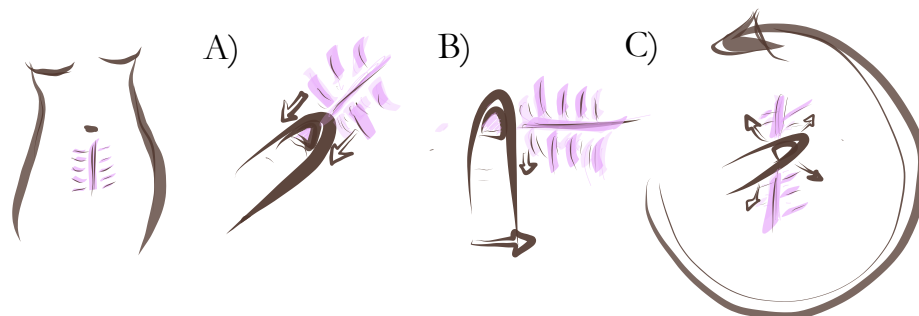
The scar should be completely closed, healed and all of the sutures removed before beginning the massage. These techniques may be performed by a trained clinician, such as a physiotherapist. The patient may also be instructed on how to perform self-massage.

Do NOT perform if:

- Active infection
- Open wound

Instructions:

1. Wash hands thoroughly.
2. Choose a comfortable position, such as lying on the back with a pillow under the head.
3. You may use a small amount of lubricant or massage oil on your finger, as needed.
4. Scar massage techniques:
 - A. Place the first two fingers parallel to the scar, along either side. Gently press on the scar, and move the fingers up and down, stretching the scar in both directions. Repeat, moving the fingers along either side of the scar from bottom to top, and top to bottom. If a sensitive or painful area is found, gently apply pressure to this area, and hold for 15-30 seconds. Practice for 2-3 minutes, 2-3 times per day.
 - B. Place the fingers perpendicular to the scar. Apply firm, but comfortable pressure. Gently move the fingers back and forth across the scar. Continue along the length of the scar, moving the fingers back and forth. Practice for 2-3 minutes, 2-3 times per day.
 - C. Place the fingers parallel to the scar, and apply firm, but gentle pressure. Now, picture an image of a clock over the scar. Push and stretch the scar in the direction of each hour. Hold each position for 10-15 seconds. Practice for 2-3 minutes, 2-3 times per day.



Massage for Vaginal Fibrosis, Stenosis and Scar Tissue

The scar should be completely closed, healed and all of the sutures removed before beginning the massage. These techniques may be performed by a trained clinician, such as a physiotherapist. The patient may also be instructed on how to perform self-massage.

Do NOT perform if:

- Active infection
- Open wound

Instructions:

- 1) Wash hands thoroughly and wear gloves.
NOTE: If self-massage is being performed, it is not necessary to wear gloves, but hands must be washed with soap and water.
- 2) Patient assumes a comfortable position, such as lying on their back with a pillow under the head.
NOTE: When instructing a patient to perform independently, a squat position or standing with one foot on a stool or chair may also be used.
- 3) Apply a small amount of massage oil to your finger or to the perineum (the area between the vagina and the anus) and gently massage the oil into the tissue. (If pure oil is not available, use sterile lubricant.)
- 4) Next, use the index finger and/or thumb to stretch the vagina down or to the sides.
- 5) Apply pressure to the scar. More pressure can be used if the tissue is well healed and according to patient tolerance. The patient may experience a sensation of a pin-prick or a slight burning sensation as the tissue stretches. Maintain pressure for 1-2 minutes, or until you feel the tissue soften under your fingers (like you are pushing your thumb into butter (or a ball of cassava or fufu).
- 6) Next, move your finger over the scar in all directions – up, down, sideways, diagonally, while maintaining gentle pressure on the tissues. You can create movement between your thumb and index finger, using rolling and shearing motions (pictured left). Repeat for 1-2 minutes.



- 7) Repeat steps 5-6 at different places along the scar, at the vaginal opening, the perineal body (the firm tissue between the vagina and anus), or inside the vagina or anus.

NOTE: If you massage scar tissue at or inside the anus or rectum, wash hands thoroughly when you are finished. Do NOT insert a finger into the vagina after it has touched around the anus or been inserted into the rectum. This will cause an infection in the vagina.

- 8) When you have finished the session, follow with [Exercises for pelvic pain, urinary urgency, and urgency urinary incontinence](#), with each inhalation focusing on breathing into the pelvic floor muscles (into the area just worked with manual therapy). This will help decrease any soreness.

Vaginal Dilators – A treatment option for vaginal stenosis and pelvic pain

Vaginal dilators may be utilized to improve vaginal stenosis, fibrosis, scar tissue, and/or tight or painful pelvic muscles and tissues. These are often used in addition to other physiotherapy treatments, including manual therapy or massage, breathing, stretching, and functional exercises.

Vaginal dilators are available in many different sizes. Often, women begin by using a small size (small diameter) and progress to larger sizes, as the vaginal tissues stretch, become more compliant or flexible and less painful. The dilators may be utilized pre-operatively or post-operatively. The gynecologic surgeon will indicate how soon after surgery a woman may resume or begin to use them.

Vaginal dilators are especially useful because these are used by the woman independently, after she has been given proper instructions for use. The physiotherapist, doctor, nurse or another trained health care provider may provide the instruction, and must be available for a brief consultation each week, in order to progress to a larger size and to discuss any concerns or problems. Typically, if the woman is using the dilator daily, she will be able to progress to a larger size each week or every 2 weeks.

Instructions for Use:

- Wash hands thoroughly with soap and water just before use.
- Wash the dilator thoroughly with soap and water that has been boiled just before use.
 - DO NOT place dilator directly in boiling water.
- When the dilator is dry, place a condom over the dilator. Once the condom is in place, put a small amount of lubricant on the end of the dilator .
 - Do not use oil directly on latex condoms. This may cause the latex to break down. If no lubricant is available, it is possible to use the dilator with condom in place without any lubrication, if this is tolerable.
- Lie in a comfortable position on your back or side, so that you may relax the pelvic muscles while using the dilator.
- Place the dilator at the vaginal opening, touching it gently to the outside of the vagina. Take 3-5 deep breaths before inserting the dilator further. Focus on relaxing the muscles at vaginal opening, lengthening with each inhalation.
- Slowly and gently slide the dilator into the vagina. Take 5 deep breaths with the dilator resting inside the vagina. There may be some discomfort or pain, once the dilator is inserted. This may feel like a burning or pin-prick sensation. The pain

should diminish within several minutes, by taking deep breaths and focusing on relaxing the pelvic muscles. Do not tighten or squeeze the muscles.

- It should NOT cause severe pain. If you experience severe pain, STOP and remove the dilator. Focus on relaxation, breathing and stretching exercises before trying again. You may also try a smaller dilator.
- If the pain is NOT severe, slowly and gently move the dilator to one side and then the other.
- **Suggested total treatment time: 10-20 minutes, 1-2x/day; 5-7x/week.**
 - Treatment can continue until vaginal length and diameter are of satisfactory proportions for the patient and her health care provider.

Key points for all clinicians:

Research supports the use of vaginal dilators for women with vaginal fibrosis and stenosis following pelvic radiation due to gynecologic cancer, for women with vaginal agenesis, and for women with pelvic pain related to muscle spasm and tightness. The guidelines above are based on the use of vaginal dilators for these patient populations.

Vaginal dilators in the treatment of vaginal stenosis and fibrosis associated with gynecologic fistula is not well-researched. Therefore, this represents a new and emerging treatment technique. All clinicians must contribute to defining the best clinical practice guidelines for both pre-operative and post-operative use of dilators.

Treatment guidelines as outlined above may be too excessive for certain patients. Similarly, they may not be of sufficient volume to have the desired effect. In either circumstance, clinicians may modify the guidelines suggested to achieve desired results. It is important to document the frequency, progression and success of dilator use for all patients, in order to better describe these parameters and to inform future clinical practice.

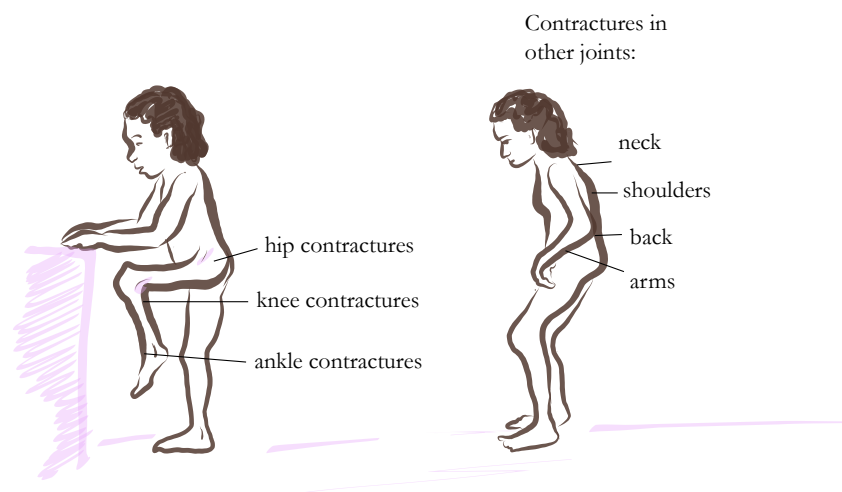
Foot drop and contracture management

The following pages provide an overview of management principles for leg contractures and foot drop. Though not very common, some women with fistula may have sustained injuries to the nerves of the lower leg and foot that cause weakness and eventually muscle and joint tightness that impacts their ability to stand and walk. If available, it is recommended to refer these women to a skilled physiotherapist and in severe cases, to an orthopedic surgeon who can manage this condition.

Overview and Guidelines for Management of Contractures

What is a contracture?

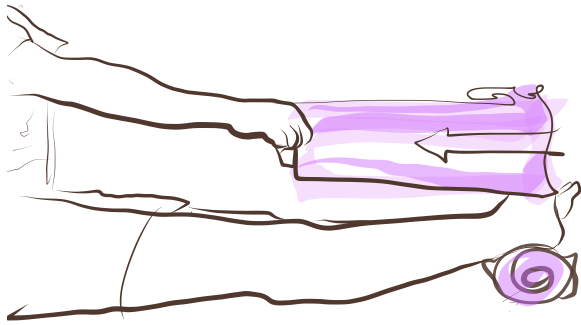
- When arms or legs are in a bent position for a long time, the muscles become shorter and may make it difficult to straighten the limb. Shortened muscles can also hold a limb straight, so it can't bend. This is called a contracture. A contracture can happen to any joint in the body.
- Contractures usually start with muscle shortening, which causes tight 'cords' (tendons). If the contracture is not treated, the skin, nerves, and tissue around the joint can also become tight.
- It is common to observe muscle wasting in the thigh and calf of the affected leg



Treating contractures

- If a contracture is severe, it is important to refer to an orthopedic surgeon for plaster of paris (POP) serial casting or a tendon lengthening procedure
- Standing, walking and moving about are very important to maintain healthy joints. If a person with a contracture is able, encourage her to stand and walk frequently throughout the day. Sitting or lying for long periods will worsen the contracture.
- Stretching exercises can also help treat contracture
 1. **Hold the limb in a steady, stretched position while you count slowly to 25.**
 2. **Then gradually stretch the joint a little more, and again count slowly to 25.**
 3. **Continue increasing the stretch in this way, steadily for 5 to 10 minutes.**
Repeat several times a day.
 4. **The following pages give specific instructions for stretching the ankle, knee, and hip.**

For ankle contractures (tight heel cord):

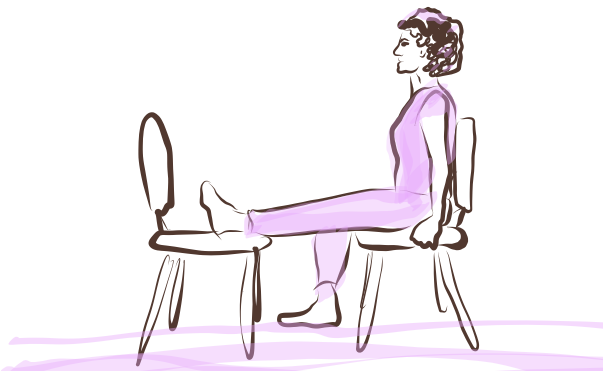


Loop a piece of cloth around the bottom of the foot. Pull toes up towards the face until you feel a gentle pull through the back of your lower leg

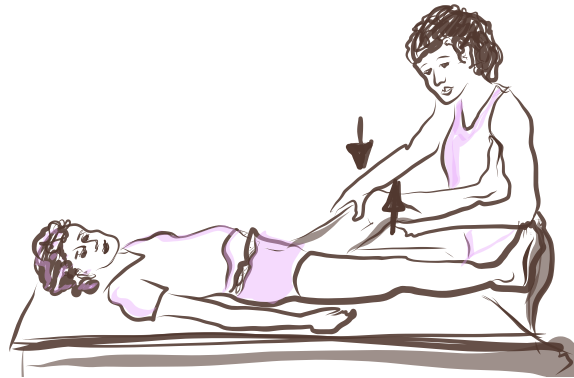


Hold the foot as shown in the picture. Turn the heel inward slightly and pull down hard. Press the hand into the arch of the foot. Then, use the forearm to push the foot up and back

For knee contractures:

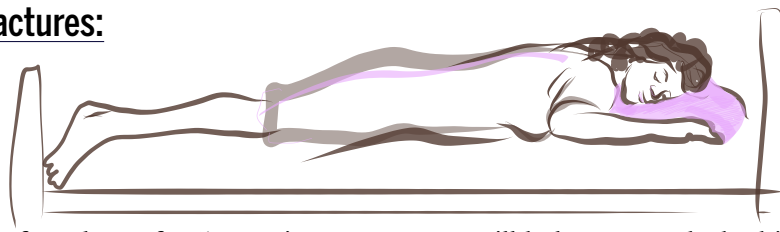


Place the lower leg and foot on a chair or stool as shown in the picture. Keep the kneecap facing the ceiling. Do not let it turn to the side. Rest in this position for 5-10 minutes to stretch the back of the knee. You may also actively try to straighten the knee using the muscles on the top of the thigh.



Support the lower leg with your hand and forearm as shown in the picture. Let the foot rest against the upper arm. Place your other hand just above the knee and press the thigh down.

For hip contractures:



Lying face down for 5-10 minutes or more will help to stretch the hip. If this position is uncomfortable, place a small pillow or rolled blanket under the hips for comfort. As the hip contracture improves, remove the pillow and work on lying flat.

Overview and Guidelines for Management of Foot Drop

What is foot drop?

Foot drop is a condition in which it is difficult for a person to lift the front part of their foot up towards their face. Foot drop may also be accompanied by numbness over the shin and across the top of the foot and toes.

What causes foot drop?

Damage to the nerves in the lower leg cause foot drop. When a nerve (or nerves) become damaged, leg muscle weakness occurs, and the front of the foot is unable to be lifted off the ground. Nerve damage may be caused by compression and damage in the pelvic floor after an obstructed labor.

What are the signs of foot drop?

The toes point down and touch the ground first when taking a step. The toes may drag on the ground when walking. The front of the foot may also slap down on the ground when taking steps. There may also be a loss of sensation across the front of the lower leg and on the top of the foot and toes.

3 categories of foot drop

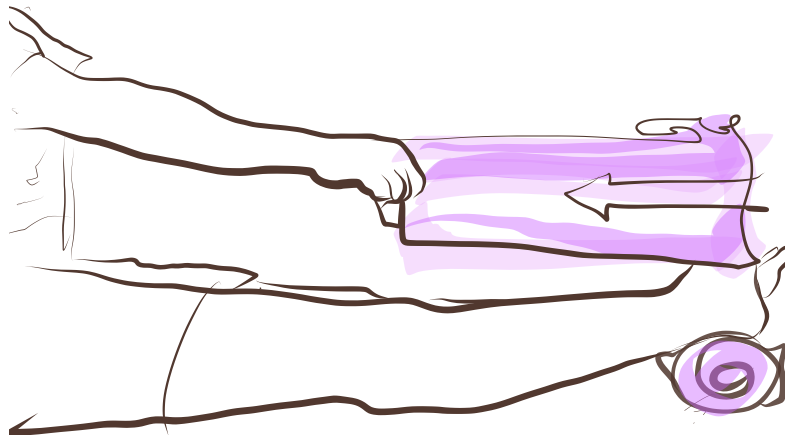
Consider 3 categories of foot drop according to severity:

- Simple foot drop: No tightness in the Achilles tendon. The ankle can be moved through the full range of motion.
- Moderate foot drop: Tightness in the Achilles tendon. The ankle cannot be moved through the full range of motion, but the heel contacts the floor in standing.
- Severe foot drop: Significant tightness in the Achilles tendon. The heel does not contact the floor in standing, and the person walks on the toes.

It is important to make note of any loss of sensation on the skin of the lower leg and foot/ toes. If an individual loses sensation, they may be at risk for an unnoticed wound or injury.

Treatment of foot drop

- Stretching: pull toes up towards face until you feel a gentle pull through the back of your lower leg
- Exercise: strengthening exercise working on pulling your toes up towards your face with the muscles in the front of your lower leg
- Serial casting
- In cases of severe foot drop, serial casting and bracing may required
- Tendon lengthening
- In cases of severe foot drop, surgical repair may be required



Loop a piece of cloth around the bottom of the foot. Pull toes up towards the face until you feel a gentle pull through the back of your lower leg



Hold the foot as shown in the picture. Turn the heel inward slightly and pull down hard. Press the hand into the arch of the foot. Then, use the forearm to push the foot up and back.

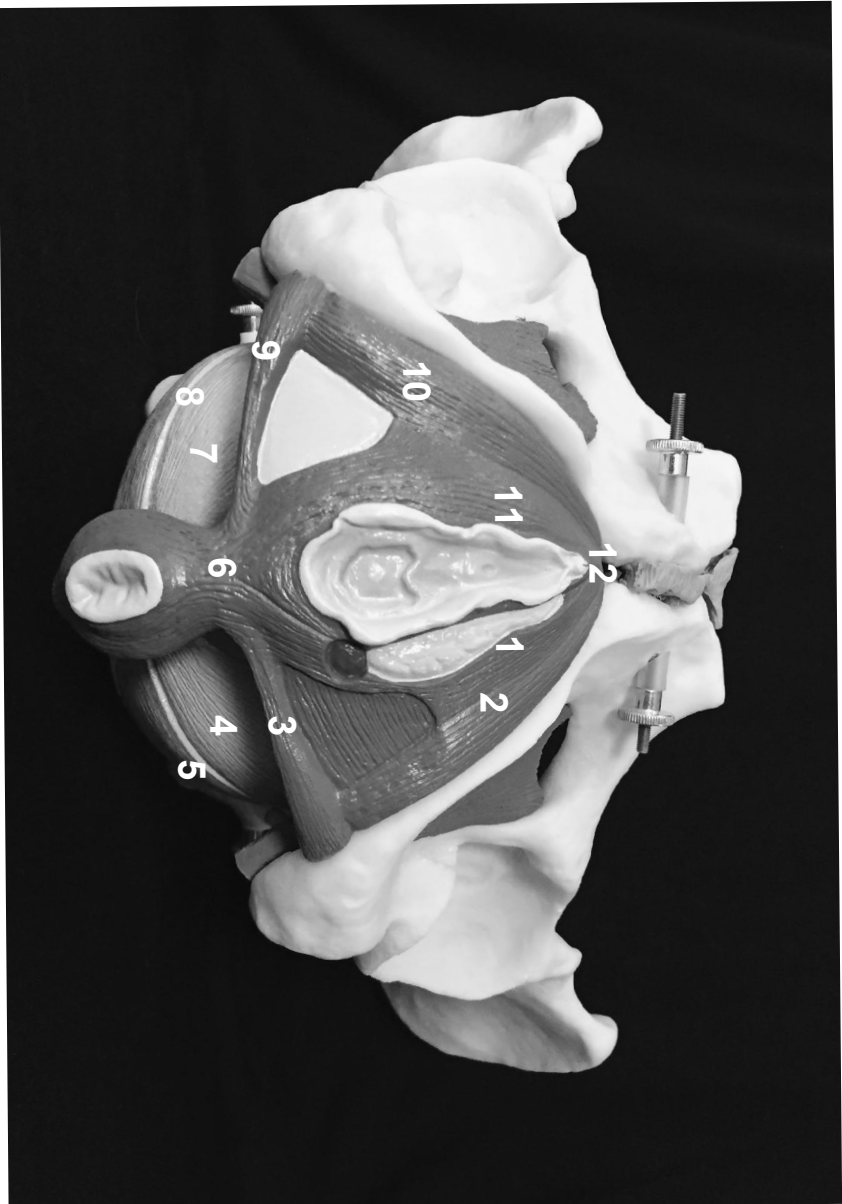
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Appendix 1. Pelvic Floor Muscles

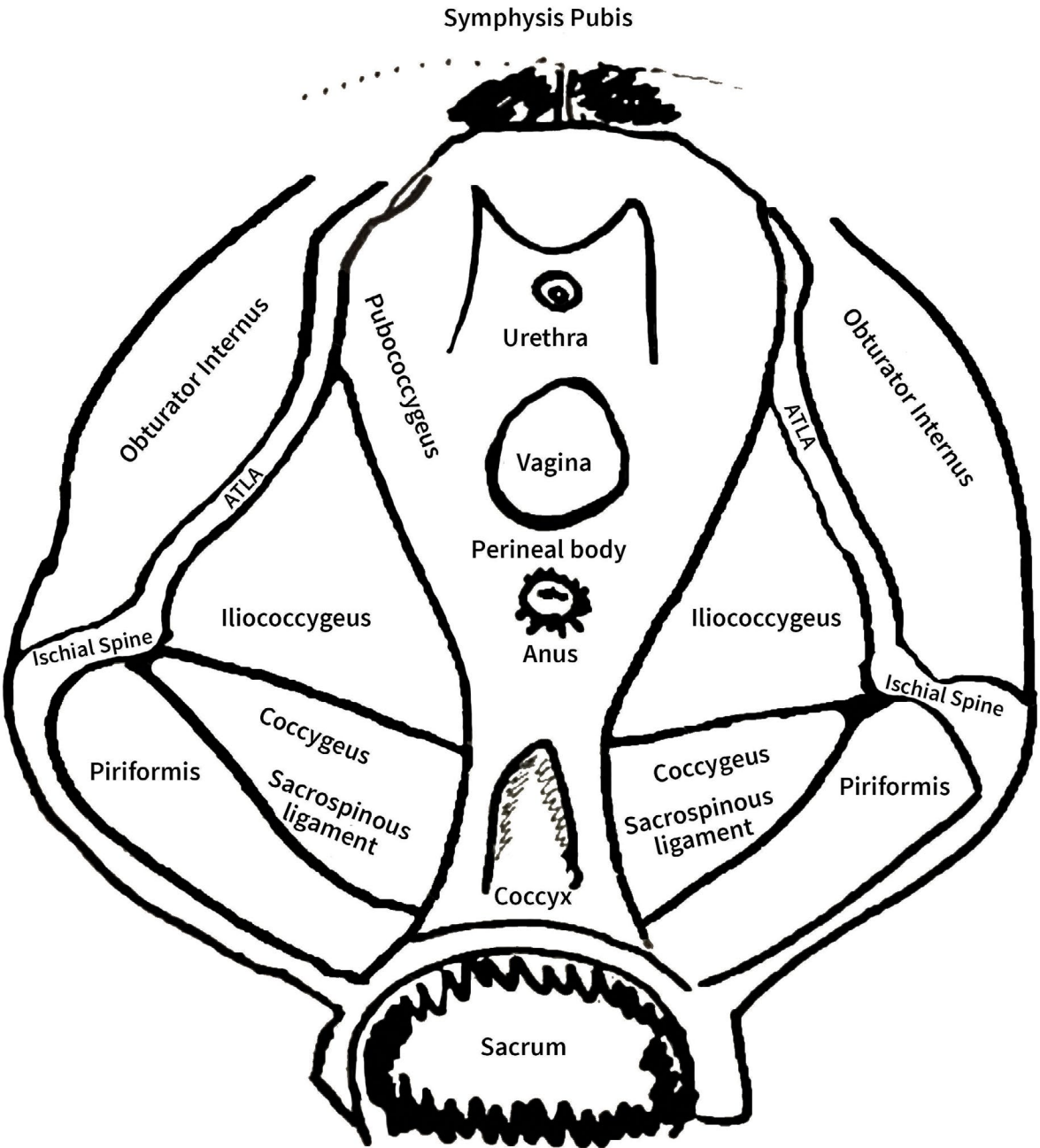
1a. External Pelvic Floor Anatomy

1b. Internal Pelvic Floor Anatomy



Pelvic Clock Examination

1. Bulbocavernosus (L)
2. Ischiocavernosus (L)
3. Superficial Transverse Perineal (L)
4. Levator ani (L)
5. Levator ani (L)
6. Perineal Body
7. Levator ani (R)
8. Levator ani (R)
9. Superficial Transverse Perineal (R)
10. Ischiocavernosus (R)
11. Bulbocavernosus (R)
12. Pubic Symphysis



Appendix 2. Patient Evaluation and Outcome measures

2a. Patient Interview and Physical Examination

2b. WHODAS 2.0 (En/Fr)

2c. Sandvik Incontinence Severity Index (En)

2d. Ditrovie Scale (Fr)

2e. Female Sexual Function Index (En/Fr)

2f. Post Fistula Incontinence Severity Scale

Incontinence Interview Questions

QUESTION	PATIENT RESPONSE
<p>Stress Incontinence Do you experience loss of urine (incontinence) with certain movements or activities, such as coughing, sneezing, laughing? Lifting? Carrying a medium or heavy load? Running? Jumping? Dancing? Singing? Yelling? Sexual intercourse? Any other activities? Have you stopped doing any of these activities because of urine leakage?</p>	
<p>Urge Incontinence Do you leak urine when you have the urge to urinate? Do you leak while walking to the toilet? Are you able to hold the urine until you reach the toilet?</p>	
<p>Urinary Urgency Do you feel the sudden, extreme urge to urinate and must quickly run to the toilet?</p>	
<p>Urinary Frequency How many times per day do you visit the toilet to urinate?</p>	
<p>Nocturia Do you wake up in the middle of the night to urinate? If so, how many times?</p>	
<p>Nocturnal Enuresis Do you leak urine during the night? Do you wake up and your bed/underwear is wet?</p>	
<p>Incomplete voids (Post-void dribble or leakage) Immediately after you visit the toilet to urinate, do you dribble or leak urine? Do you leak a few drops when you stand up from the toilet or as you walk away?</p>	
<p>Number of drinks/Amount of water intake per day How much water do you drink per day? (If the patient cannot indicate number of liters, write in number of cups of water she drinks and estimate number of liters based on her description)</p>	
<p>Caffeine intake Do you drink coffee, tea, or caffeinated sodas? If so, how many cups per day?</p>	
<p>Incontinence Outcome Measures Note the outcome measure, date completed, and score</p>	

PHYSICAL EXAMINATION & PHYSIOTHERAPY REFERRAL (GENERAL)

Patient information

Name: _____ Age: _____

Health condition: Urinary incontinence Anal incontinence (gas / stool)
 Pelvic organ prolapse _____
 Other _____

G ____ P ____ Number of living children ____ Number of deliveries: Vaginal ____ Cesarean ____

Other abdominal or pelvic surgeries: _____

History of sexual violence: Yes No
 Infection: HIV STI Other _____

WHODAS score: Yes _____ Not administered
 Other outcome measures (score): _____

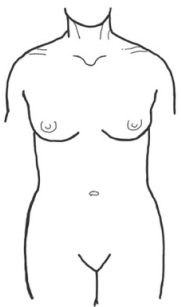

Physical Exam

Mobility assessment: Foot drop Difficulty walking General weakness

Task/Activity:	Level of difficulty completing task:		
Moving on/off exam table	<input type="checkbox"/> No difficulty	<input type="checkbox"/> Some difficulty	<input type="checkbox"/> Unable
Walking	<input type="checkbox"/> No difficulty	<input type="checkbox"/> Some difficulty	<input type="checkbox"/> Unable
Squatting on/off the floor	<input type="checkbox"/> No difficulty	<input type="checkbox"/> Some difficulty	<input type="checkbox"/> Unable
Lifting a moderate weight (5-10 kg)	<input type="checkbox"/> No difficulty	<input type="checkbox"/> Some difficulty	<input type="checkbox"/> Unable

Notes:

External exam

Abdominal Exam (Circle and indicate on the diagram)	Pelvic Exam (Circle and indicate on the diagram)
Scars: <input type="checkbox"/> Yes <input type="checkbox"/> No Pain: <input type="checkbox"/> Yes <input type="checkbox"/> No DRA: <input type="checkbox"/> Yes <input type="checkbox"/> No 	Pain: <input type="checkbox"/> Yes <input type="checkbox"/> No 

Notes:

Internal exam

Pelvic Floor Muscle Exam	RIGHT SIDE (circle)			LEFT SIDE (circle)		
	Absent	Weak	Normal/ Strong	Absent	Weak	Normal/ Strong
Ability to contract	Absent	Weak	Normal/ Strong	Absent	Weak	Normal/ Strong
Ability to hold (Duration)	Poor (0-2 sec)	Moderate (3-6 sec)	Excellent (7-10 sec)	Poor (0-2 sec)	Moderate (3-6 sec)	Excellent (7-10 sec)
Ability to relax	Absent	Delayed	Complete	Absent	Delayed	Complete

Summary of findings: (Note impairments in body structures and functions, activity limitation, participation restrictions)

Treatment plan: (Check all the apply. Indicate modifications to protocols as needed)

- Functional mobility and body mechanics
- Bladder and fluid schedule
- Breathing exercises
- Pelvic floor muscle exercises
- Exercises for stress urinary incontinence
- Exercises for pelvic pain, urinary urgency, and urge urinary incontinence
- Exercises for anal incontinence
- Exercises for pelvic organ prolapse
- Cardiovascular exercise
- Manual therapy/massage
- Foot drop and contracture management

PHYSICAL EXAMINATION & PHYSIOTHERAPY REFERRAL (FISTULA)

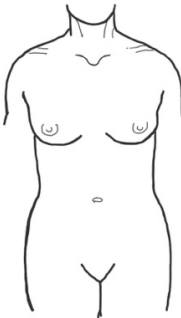

Patient information

Name: _____ Age: _____
 Number of years living with fistula: _____ Number of prior fistula surgeries: _____
 Type of fistula: VVF RVF History of sexual violence: Yes No
 G _____ P _____ Number of living children _____ Number of deliveries: Vaginal _____ Cesarean _____
 Other abdominal or pelvic surgeries: _____

WHODAS score on admission: Yes _____ Not administered

Physical Exam

Infection: HIV STI Other _____
 Mobility problems: Foot drop Difficulty walking General weakness

<u>Abdominal Exam</u> (Circle and indicate on the diagram)	<u>Pelvic Exam</u> (Circle and indicate on the diagram)
Scars: <input type="checkbox"/> Yes <input type="checkbox"/> No Pain: <input type="checkbox"/> Yes <input type="checkbox"/> No DRA: <input type="checkbox"/> Yes <input type="checkbox"/> No 	Size of fistula: <input type="checkbox"/> < 3 cm <input type="checkbox"/> >= 3 cm Circumferential: <input type="checkbox"/> Yes <input type="checkbox"/> Non Fibrosis: <input type="checkbox"/> None <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Pain: <input type="checkbox"/> Yes <input type="checkbox"/> No 

Vaginal measurements: Length (cm) _____ Genital Hiatus (cm) _____ Diameter (no. fingers) _____ Not taken _____

Pelvic Floor Muscle Exam	RIGHT SIDE			LEFT SIDE		
	Absent	Weak	Normal/ Strong	Absent	Weak	Normal/ Strong
Ability to contract	Absent	Weak	Normal/ Strong	Absent	Weak	Normal/ Strong
Ability to hold (Duration)	Poor (0-2 sec)	Moderate (3-6 sec)	Excellent (7-10 sec)	Poor (0-2 sec)	Moderate (3-6 sec)	Excellent (7-10 sec)
Ability to relax	Absent	Delayed	Complete	Absent	Delayed	Complete

Treatment plan : Pre-operative

Protocol 1: Fibrosis/Stenosis

Manual therapy: ___ Abdominal ___ Vaginal
Dilator therapy (if appropriate): 20 min ___ 1x/day ___ 2x/day
Exercises (group or individual)

Protocol 2: Pelvic and/or abdominal pain (WITHOUT Fibrosis/Stenosis)

Manual therapy: ___ Abdominal ___ Vaginal
Exercises (group or individual)

Protocol 3: Pelvic muscle weakness and/or general muscle weakness

Exercises (group or individual)

NOTE : For any mobility or walking problems, refer the patient for general physiotherapy whenever possible.

Surgical Summary

Date of surgery: _____ Type of surgery: Vaginal Laparoscopic Open
Vaginal measurements (post-operative) : Length (cm) _____ Genital Hiatus (cm) _____
Result of surgery: Closed Open
Post-operative Incontinence: Yes No (Indicate type of incontinence if possible)

WHODAS score on discharge: Yes _____ Not administered

Participation in vocational or literacy programming: Yes No

Post-operative Treatment Plan

- Physiotherapy: Exercise (group or individual)
- Other surgery
- Other medical intervention



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

36-item version, interviewer-administered

Introduction

This instrument was developed by the WHO *Classification, Terminology and Standards* team, within the framework of the WHO/National Institutes of Health (NIH) Joint Project on Assessment and Classification of Disability.

Before using this instrument, interviewers must be trained using the manual *Measuring Health and Disability: Manual for WHO Disability Assessment Schedule – WHODAS 2.0* (WHO 2010), which includes an interview guide and other training material.

The versions of the interview available are as follows:

- 36-item – Interviewer-administered^a
- 36-item – Self-administered
- 36-item – Proxy-administered^b
- 12-item – Interviewer-administered^c
- 12-item – Self-administered
- 12-item – Proxy-administered
- 12+24-item – Interviewer-administered

^a A computerized version of the interview (*iShell*) is available for computer-assisted interviews or for data entry

^b Relatives, friends or caretakers

^c The 12-item version explains 81% of the variance of the more detailed 36-item version

For more details of the versions please refer to the WHODAS 2.0 manual *Measuring Health and Disability: Manual for WHO Disability Assessment Schedule – WHODAS 2.0* (WHO 2010).

Permission to translate this instrument into any language should be obtained from WHO, and all translations should be prepared according to the WHO translation guidelines, as detailed in the accompanying manual.

For additional information, please visit www.who.int/whodas or contact:

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WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

36
Interview

This questionnaire contains the interviewer-administered 36-item version of WHODAS 2.0.

Instructions to the interviewer are written in bold and italics – do not read these aloud.

Text for the respondent to hear is written in

standard print in blue.

Read this text aloud.

Section 1 Face sheet

<i>Complete items F1–F5 before starting each interview</i>				
F1	Respondent identity number			
F2	Interviewer identity number			
F3	Assessment time point (1, 2, etc.)			
F4	Interview date	_____ day	_____ month	_____ year
F5	Living situation at time of interview (circle only one)	Independent in community		1
		Assisted living		2
		Hospitalized		3



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

36
Interview

Section 2 Demographic and background information

This interview has been developed by the World Health Organization (WHO) to better understand the difficulties people may have due to their health conditions. The information that you provide in this interview is confidential and will be used only for research. The interview will take 15–20 minutes to complete.

For respondents from the general population (not the clinical population) say:

Even if you are healthy and have no difficulties, I need to ask all of the questions so that the survey is complete.

I will start with some background questions.

A1	Record sex as observed	Female	1
		Male	2
A2	How old are you now?	_____ years	
A3	How many years in all did you spend studying in school, college or university ?	_____ years	
A4	What is your current marital status? (Select the single best option)	Never married	1
		Currently married	2
		Separated	3
		Divorced	4
		Widowed	5
		Cohabiting	6
A5	Which describes your main work status best? (Select the single best option)	Paid work	1
		Self employed, such as own your business or farming	2
		Non-paid work, such as volunteer or charity	3
		Student	4
		Keeping house/ homemaker	5
		Retired	6
		Unemployed (health reasons)	7
		Unemployed (other reasons)	8
		Other (specify) _____ _____	9



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

36

Interview

Section 3 Preamble

Say to respondent:

The interview is about difficulties people have because of health conditions.

Hand flashcard #1 to respondent and say:

By health condition I mean diseases or illnesses, or other health problems that may be short or long lasting; injuries; mental or emotional problems; and problems with alcohol or drugs.

Remember to keep all of your health problems in mind as you answer the questions. When I ask you about difficulties in doing an activity think about ...

Point to flashcard #1 and explain that "difficulty with an activity" means:

- Increased effort
- Discomfort or pain
- Slowness
- Changes in the way you do the activity.

Say to respondent:

When answering, I'd like you to think back over the past 30 days. I would also like you to answer these questions thinking about how much difficulty you have had, on average, over the past 30 days, while doing the activity as you usually do it.

Hand flashcard #2 to respondent and say:

Use this scale when responding.

Read the scale aloud:

None, mild, moderate, severe, extreme or cannot do.

Ensure that the respondent can easily see flashcards #1 and #2 throughout the interview



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

36
Interview

Section 4 Domain reviews

Domain 1 Cognition

I am now going to ask some questions about [understanding and communicating](#).

Show flashcards #1 and #2 to respondent

In the past 30 days, how much difficulty did you have in:		None	Mild	Moderate	Severe	Extreme or cannot do
D1.1	Concentrating on doing something for ten minutes?	1	2	3	4	5
D1.2	Remembering to do important things?	1	2	3	4	5
D1.3	Analysing and finding solutions to problems in day-to-day life?	1	2	3	4	5
D1.4	Learning a new task , for example, learning how to get to a new place?	1	2	3	4	5
D1.5	Generally understanding what people say?	1	2	3	4	5
D1.6	Starting and maintaining a conversation?	1	2	3	4	5

Domain 2 Mobility

I am now going to ask you about difficulties in [getting around](#).

Show flashcards #1 and #2

In the past 30 days, how much difficulty did you have in:		None	Mild	Moderate	Severe	Extreme or cannot do
D2.1	Standing for long periods such as 30 minutes?	1	2	3	4	5
D2.2	Standing up from sitting down?	1	2	3	4	5
D2.3	Moving around inside your home?	1	2	3	4	5
D2.4	Getting out of your home?	1	2	3	4	5
D2.5	Walking a long distance such as a kilometre [or equivalent]?	1	2	3	4	5

Please continue to next page...



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

36

Interview

Domain 3 Self-care

I am now going to ask you about difficulties in [taking care of yourself](#).

Show flashcards #1 and #2

In the past 30 days, how much difficulty did you have in:		None	Mild	Moderate	Severe	Extreme or cannot do
D3.1	Washing your whole body?	1	2	3	4	5
D3.2	Getting dressed?	1	2	3	4	5
D3.3	Eating?	1	2	3	4	5
D3.4	Staying by yourself for a few days?	1	2	3	4	5

Domain 4 Getting along with people

I am now going to ask you about difficulties in [getting along with people](#). Please remember that I am asking only about difficulties that are due to health problems. By this I mean diseases or illnesses, injuries, mental or emotional problems and problems with alcohol or drugs.

Show flashcards #1 and #2

In the past 30 days, how much difficulty did you have in:		None	Mild	Moderate	Severe	Extreme or cannot do
D4.1	Dealing with people you do not know?	1	2	3	4	5
D4.2	Maintaining a friendship?	1	2	3	4	5
D4.3	Getting along with people who are close to you?	1	2	3	4	5
D4.4	Making new friends?	1	2	3	4	5
D4.5	Sexual activities?	1	2	3	4	5

Please continue to next page...



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

36
Interview

Domain 5 Life activities

5(1) Household activities

I am now going to ask you about activities involved in maintaining your household, and in caring for the people who you live with or are close to. These activities include cooking, cleaning, shopping, caring for others and caring for your belongings.

Show flashcards #1 and #2

Because of your health condition, in the past 30 days, how much difficulty did you have in:		None	Mild	Moderate	Severe	Extreme or cannot do
D5.1	Taking care of your household responsibilities ?	1	2	3	4	5
D5.2	Doing your most important household tasks well ?	1	2	3	4	5
D5.3	Getting all the household work done that you needed to do?	1	2	3	4	5
D5.4	Getting your household work done as quickly as needed?	1	2	3	4	5

If any of the responses to D5.2–D5.5 are rated greater than none (coded as “1”), ask:

D5.01	In the past 30 days, on how many days did you reduce or completely miss household work because of your health condition?	Record number of days ____
-------	--	----------------------------

If respondent works (paid, non-paid, self-employed) or goes to school, complete questions D5.5–D5.10 on the next page. Otherwise, skip to D6.1 on the following page.



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

36
Interview

5(2) Work or school activities

Now I will ask some questions about your work or school activities.

Show flashcards #1 and #2

Because of your health condition, in the past 30 days how much difficulty did you have in:		None	Mild	Moderate	Severe	Extreme or cannot do
D5.5	Your day-to-day <u>work/school</u> ?	1	2	3	4	5
D5.6	Doing your most important work/school tasks <u>well</u> ?	1	2	3	4	5
D5.7	Getting all the work <u>done</u> that you need to do?	1	2	3	4	5
D5.8	Getting your work done as <u>quickly</u> as needed?	1	2	3	4	5
D5.9	Have you had to work at a <u>lower level</u> because of a health condition?				No	1
					Yes	2
D5.10	Did you <u>earn less money</u> as the result of a health condition?				No	1
					Yes	2

If any of D5.5–D5.8 are rated greater than none (coded as “1”), ask:

D5.02	In the past 30 days, on how many days did you <u>miss work for half a day or more</u> because of your health condition?	Record number of days ____
-------	---	----------------------------

Please continue to next page...



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

36

Interview

Domain 6 Participation

Now, I am going to ask you about [your participation in society](#) and the [impact of your health problems on you and your family](#). Some of these questions may involve problems that go beyond the past 30 days, however in answering, please focus on the past 30 days. Again, I remind you to answer these questions while thinking about health problems: physical, mental or emotional, alcohol or drug related.

Show flashcards #1 and #2

In the past 30 days:		None	Mild	Moderate	Severe	Extreme or cannot do
D6.1	How much of a problem did you have joining in community activities (for example, festivities, religious or other activities) in the same way as anyone else can?	1	2	3	4	5
D6.2	How much of a problem did you have because of barriers or hindrances in the world around you?	1	2	3	4	5
D6.3	How much of a problem did you have living with dignity because of the attitudes and actions of others?	1	2	3	4	5
D6.4	How much time did you spend on your health condition or its consequences?	1	2	3	4	5
D6.5	How much have you been emotionally affected by your health condition?	1	2	3	4	5
D6.6	How much has your health been a drain on the financial resources of you or your family?	1	2	3	4	5
D6.7	How much of a problem did your family have because of your health problems?	1	2	3	4	5
D6.8	How much of a problem did you have in doing things by yourself for relaxation or pleasure ?	1	2	3	4	5



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

36
Interview

H1	Overall, in the past 30 days, <u>how many days</u> were these difficulties present?	Record number of days ____
H2	In the past 30 days, for how many days were you <u>totally unable to</u> carry out your usual activities or work because of any health condition?	Record number of days ____
H3	In the past 30 days, not counting the days that you were totally unable, for how many days did you <u>cut back</u> or <u>reduce</u> your usual activities or work because of any health condition?	Record number of days ____

This concludes the interview. Thank you for participating.



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

Flashcard 1

Health conditions:

- **Diseases, illnesses or other health problems**
- **Injuries**
- **Mental or emotional problems**
- **Problems with alcohol**
- **Problems with drugs**

Having difficulty with an activity means:

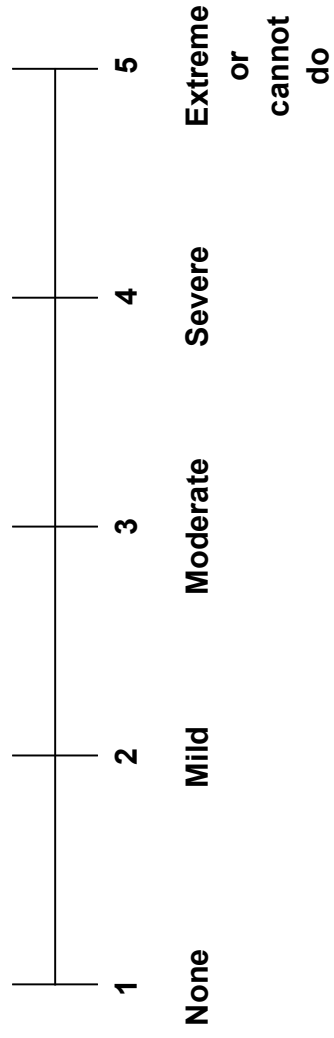
- **Increased effort**
- **Discomfort or pain**
- **Slowness**
- **Changes in the way you do the activity**

Think about the past 30 days only.

WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

Flashcard 2





WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

Version 12+24-item administrée par un enquêteur

Introduction

Cet outil a été élaboré par le groupe Evaluation, Classification et Epidémiologie de l’OMS dans le cadre du projet conjoint OMS / Institut national de santé des Etats-Unis (*NIH*) sur l’évaluation et la classification des handicaps.

Une utilisation adéquate de cet outil nécessite une formation appropriée des enquêteurs à l’utilisation du manuel de formation: *Measuring Health and Disability: Manual for WHO Disability Assessment Schedule – WHODAS 2.0* (WHO 2010), qui inclut un guide d’entretien et d’autres guides de formation.

Les versions disponibles sont les suivantes:

- 36-item – administrée par un enquêteur^a
- 36-item – auto-administrée
- 36-item –administrée par un proche^b
- 12-item – administrée par un enquêteur^c
- 12-item – auto-administrée
- 12-item –administrée par un proche
- 12+24-item – administrée par un enquêteur

^a Une version électronique du guide d’entretien (I shell) est disponible pour réaliser des entretiens assistés par ordinateur ou pour saisir des données.

^b Parents, amis ou personnels de soin

^c La version 12-item explique 81% de la variance de la version 36-item

Pour des informations supplémentaires sur les versions, merci de vous référer au manuel WHODAS 2.0 *Measuring Health and Disability: Manual for WHO Disability Assessment Schedule – WHODAS 2.0* (WHO 2010).

L’autorisation de traduction de cet outil dans quelque langue que ce soit doit être obtenue de l’OMS. Toutes les traductions doivent être préparées selon les recommandations de traduction de l’OMS.

Pour de plus amples détails, merci de visiter www.who.int/whodas ou de contacter:

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WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

12+24
Interview

Ce questionnaire contient la version 36-item administrée par un enquêteur du WHODAS 2.0.

Les instructions à destination de l'enquêteur sont écrites en gras et italiques - il convient de ne pas les lire à haute voix. Les texte qui doivent être lus aux répondants sont écrits en bleu standard.

Lisez ce texte à voix haute.

Section 1 Face sheet

Les items F1 à F5 sont à compléter avant le début de chaque interview			
F1	Numéro d'identification du répondant		
F2	Numéro d'identification de l'enquêteur		
F3	Numéro d'ordre de l'entretien (1, 2, etc.)		
F4	Date de l'entretien	_____	_____
		jour	mois
			année
F5	Situation au moment de l'entretien (1 seul choix possible)	Vie indépendante en milieu ordinaire	1
		Vie avec assistance	2
		Hospitalisé / en institution	3

Merci de continuer page suivante...



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

12+24

Interview

Section 2 Informations démographiques et contexte

Cette enquête a été développée par l'Organisation mondiale de la Santé pour mieux comprendre les difficultés que les personnes peuvent rencontrer du fait de leur état de santé. L'information que vous fournissez lors de cette enquête est traitée de façon confidentielle et sera seulement utilisée à des fins de recherche. L'enquête dure 15–20 minutes.

Pour les répondants de la population générale (pas les populations cliniques) dire :

« Même si vous êtes en bonne santé et n'avez aucune difficulté, j'aimerais tout de même vous poser l'intégralité du questionnaire. »

Je vais commencer par quelques informations générales

A1	Indiquer le sexe observé	Féminin	1
		Masculin	2
A2	Quel âge avez-vous ?	_____ans	
A3	Combien d'années au total avez-vous passées à <u>étudier</u> à l'école, au collège ou à l'université ?	_____ans	
A4	Quel est votre <u>statut marital</u> actuel ? (1 seul choix possible)	Jamais marié(e)	1
		Marié(e)	2
		Separé(e)	3
		Divorcé(e)	4
		Veuf(ve)	5
		Cohabitation	6
A5	Laquelle de ces activités décrit le mieux votre situation principale de travail (1 seul choix possible)	Salarié	1
		Travailleur indépendant	2
		Travail non rémunéré (bénévolat, associations)	3
		Etudiant	4
		Femme/Homme au foyer	5
		Retraité	6
		Sans emploi (pour raisons de santé)	7
		Sans emploi (autres raisons)	8
Autre (préciser) _____	9		

Merci de continuer page suivante...



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WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

12+24

Interview

Section 3 Préambule

Dire au répondant:

Cette enquête concerne les difficultés que peuvent rencontrer les personnes à cause de leur état de santé.

Donner la flashcard #1 au répondant et dire:

Par état de santé, je veux dire une maladie ou un malaise, ou tout autre problème de santé qui peut être de courte durée ou chronique, une blessure, des problèmes mentaux ou émotionnels et des problèmes liés à l'alcool ou aux drogues.

Je vous demande de garder à l'esprit tous vos problèmes de santé lorsque vous répondez aux questions. Quand je vous demanderai de me parler de vos difficultés pour effectuer une activité, pensez à (**montrer sur la Flashcard #1**).

Montrer la Flashcard #1 et expliquer que “une difficulté lors d'une activité” signifie:

- Effort accru
- Inconfort ou douleur
- Lenteur
- Changement dans la manière d'effectuer ces activités

Dire au répondant:

Lorsque vous répondez aux questions, j'aimerais que vous pensiez aux 30 derniers jours. J'aimerais aussi que vous répondiez en estimant la difficulté que vous eue, en moyenne, lors des 30 derniers jours, en comparant à la difficulté ressentie si vous faisiez cette activité de manière habituelle.

Montrer la flashcard #2 au répondant et dire:

Utilisez cette échelle d'évaluation quand vous me parlerez de vos difficultés.

Lisez l'échelle à voix haute:

Aucune, Légère, Modérée, Sévère, extrême ou ne peut faire.

Assurez-vous que le répondant puisse toujours voir les flashcards #1 et #2 tout au long de l'entretien.



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Interview

Section 4 Questions cible

Montrer la flashcard #1

Durant les 30 derniers jours, combien de difficultés avez-vous eues pour :		Aucune	Légère	Modérée	Sévère	Extrême ou ne peut pas faire
S1	être debout pour de longues périodes comme 30 min. ?	1	2	3	4	5
S2	Vous occuper de vos responsabilités ménagères ?	1	2	3	4	5
S3	apprendre une nouvelle tâche ou par ex. découvrir un nouveau lieu?	1	2	3	4	5
S4	A quel point est-ce un problème de vous engager dans des activités communautaires (par ex. fêtes, activité religieuse ou autre) de la même façon que les autres ?	1	2	3	4	5
S5	A quel point avez-vous été émotionnellement affecté(e) par votre état de santé ?	1	2	3	4	5

Si parmi les questions S1–S5 il y a des réponses notées au-delà de 1 (aucune), continuer avec S6-S12. Si non, c'est la fin de l'entretien. Annoncer:

Notre entretien est maintenant terminé. Je vous remercie de votre participation.

Durant les 30 derniers jours, combien de difficultés avez-vous eues pour :		Aucune	Légère	Modérée	Sévère	Extrême ou ne peut pas faire
S6	vous concentrer sur une tâche pendant dix minutes ?	1	2	3	4	5
S7	Marcher une longue distance comme 1 kilomètre ?	1	2	3	4	5
S8	Laver votre corps tout entier ?	1	2	3	4	5
S9	Vous habiller ?	1	2	3	4	5
S10	Avoir à faire à des personnes que vous ne connaissez pas ?	1	2	3	4	5
S11	Entretenir une relation d'amitié?	1	2	3	4	5
S12	Faire votre travail/vos activités scolaires quotidien(nes) ?	1	2	3	4	5

Merci de continuer page suivante...



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Continuer en administrant les questions comme suit:

Si il y a un réponse note 2 à 5	Aller à	Numéro de domaine
S3 ou S6	⇒	1 sur la page 6
S1 ou S7	⇒	2 sur la page 7
S8 ou S9	⇒	3 sur la page 7
S10 ou S11	⇒	4 sur la page 7
S2 ou S12	⇒	5 sur la page 8–9
S4 ou S5	⇒	6 sur la page 10

Domaine 1 Cognition

Je vais maintenant vous poser des questions concernant la [compréhension et la communication](#).

Montrer les flashcards #1 et #2 au répondant

Durant les 30 derniers jours, combien de difficultés avez-vous eues pour :		Aucune	Légère	Modérée	Sévère	Extrême ou ne peut pas faire
D1.2	vous rappeler de faire des choses importantes ?	1	2	3	4	5
D1.3	analyser et trouver des solutions à des problèmes de la vie courante ?	1	2	3	4	5
D1.5	comprendre ce que les gens disent ?	1	2	3	4	5
D1.6	commencer ou maintenir une conversation ?	1	2	3	4	5

Merci de continuer page suivante...



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Interview

Domaine 2 Mobilité

Je vais maintenant vous poser des questions au sujet de difficultés qui concernent le fait de [se déplacer](#).

Montrer les flashcards #1 and #2

Durant les 30 derniers jours, combien de difficultés avez-vous eues pour :		Aucune	Légère	Modérée	Sévère	Extrême ou ne peut pas faire
D2.2	Passer de la position assise à une position debout?	1	2	3	4	5
D2.3	vous déplacer dans votre maison ?	1	2	3	4	5
D2.4	Sortir de votre maison?	1	2	3	4	5

Domaine 3 Soins personnels

Je vais maintenant vous poser des questions au sujet de difficultés qui concernent les [soins personnels](#).

Montrer les flashcards #1 et #2 au répondant

Durant les 30 derniers jours, combien de difficultés avez-vous eues pour :		Aucune	Légère	Modérée	Sévère	Extrême ou ne peut pas faire
D3.3	Manger ?	1	2	3	4	5
D3.4	Rester seul(e) durant quelques jours?	1	2	3	4	5

Domaine 4 S'entendre avec son entourage

Je vais maintenant vous poser des questions au sujet des difficultés qui concernent le fait de [s'entendre avec son entourage](#). Souvenez-vous que je demande seulement les difficultés qui sont dues à votre état de santé. Par état de santé, on entend une maladie, un malaise, une blessure, des troubles mentaux ou émotionnels et des problèmes liés à l'alcool ou aux drogues.

Montrer les flashcards #1 et #2 au répondant

Durant les 30 derniers jours, combien de difficultés avez-vous eues pour :		Aucune	Légère	Modérée	Sévère	Extrême ou ne peut pas faire
D4.3	Vous entendre avec des proches?	1	2	3	4	5
D4.4	Vous faire de nouveaux amis ?	1	2	3	4	5
D4.5	Avoir des relations sexuelles?	1	2	3	4	5

Merci de continuer page suivante...



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Interview

Domaine 5 Activités de la vie

5(1) Activités ménagères

Les questions suivantes se rapportent aux activités concernant la maintenance du ménage ainsi que les soins pour les personnes qui vivent avec vous ou qui sont proches de vous. Ces activités incluent cuisiner, nettoyer, faire les courses s'occuper des autres et s'occuper de vos affaires.

Montrer les flashcards #1 et #2 au répondant

Du fait de votre état de santé, durant les 30 derniers jours, <u>combien de difficultés avez-vous eues pour :</u>		Aucune	Légère	Modérée	Sévère	Extrême ou ne peut pas faire
D5.2	Faire bien vos tâches ménagères importantes ?	1	2	3	4	5
D5.3	Terminer tout ce qui devrait être fait comme tâches ?	1	2	3	4	5
D5.4	Faire votre ménage aussi vite que nécessaire ?	1	2	3	4	5

Si parmi les questions D5.2–D5.4 il y a des réponses notées au-delà de 1 (aucune), demander:

D5.01	Durant les 30 derniers jours, pendant combien de jours avez-vous réduit ou complètement négligé vos tâches ménagères, à cause de votre état de santé ?	<i>Noter le nombre de jours</i>
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Si le répondant travaille (employé, bénévole, indépendant) ou va à l'école, compléter les questions D5.6–D5.10 page suivante. Sinon, aller à D6.2.



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Interview

5(2) Travail ou Activités scolaires

Je vais vous poser quelques questions concernant votre travail ou vos activités scolaires.

Montrer les flashcards #1 et #2 au répondant

Du fait de votre état de santé, durant les 30 derniers jours, <u>combien de difficultés avez-vous eues pour :</u>		Aucune	Légère	Modérée	Sévère	Extrême ou ne peut pas faire
D5.6	Faire correctement votre <u>tâche la plus importante pour le travail / les activités scolaires ?</u>	1	2	3	4	5
D5.7	Faire <u>tout le travail</u> que vous avez à faire ?	1	2	3	4	5
D5.8	Faire votre travail aussi vite que nécessaire ?	1	2	3	4	5
D5.9	Avez-vous dû travailler moins intensément à cause de votre état de santé ?				Non	1
					Oui	2
D5.10	Avez-vous gagné moins d'argent à cause de votre état de santé ?				Non	1
					Oui	2

Si parmi les questions D5.6–D5.10 il y a des réponses notées au-delà de 1 (aucune), demander:

D5.02	Durant les 30 derniers jours, combien de demi-journées ou de demi-journées avez-vous été absent(e) du travail à cause de votre état de santé ?	Noter le nombre de jours _____
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Merci de continuer page suivante...



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Interview

Domaine 6 Participation dans la société

Je vais vous poser maintenant des questions sur la participation dans la société, et sur l'impact de vos problèmes de santé sur vous et votre famille. Quelques-unes de ces questions peuvent traiter de problèmes dépassant les 30 jours, mais essayez de vous concentrer sur les 30 derniers jours. A nouveau, je vous rappelle qu'il s'agit uniquement des problèmes de santé physique, mentaux ou émotionnels, ou liés à l'alcool ou aux drogues.

Montrer les flashcards #1 et #2 au répondant

Au cours des 30 derniers jours:		Aucune	Légère	Modérée	Sévère	Extrême ou ne peut pas faire
D6.2	Combien de problèmes avez-vous eu pour exécuter vos plans à cause de <u>barrières ou d'empêchements</u> dans le monde qui vous entoure ?	1	2	3	4	5
D6.3	A quel point était-ce un problème de <u>vivre dignement</u> malgré les attitudes et les actions d'autrui ?	1	2	3	4	5
D6.4	Combien de <u>temps</u> avez-vous <u>passé</u> sur votre état de santé ou ses conséquences ?	1	2	3	4	5
D6.6	A quel point votre santé a-t-elle été à l'origine d' <u>une perte pour vos ressources financières</u> et celles de votre famille ?	1	2	3	4	5
D6.7	Combien de difficultés votre <u>famille</u> a-t-elle eues à cause de votre état de santé ?	1	2	3	4	5
D6.8	Combien de difficultés avez-vous eues pour faire des choses tout(e) seul(e) pour vous <u>relaxer</u> ou pour votre plaisir ?	1	2	3	4	5

Merci de continuer page suivante...



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Interview

H1	Au total, durant les 30 derniers jours, pendant <u>combien de jours</u> avez-vous eu ces difficultés ?	Noter le nombre de jours ___
H2	Durant les 30 derniers jours, pendant combien de jours avez-vous été incapable d'effectuer vos activités habituelles ou travail du fait de votre état de santé ?	Noter le nombre de jours ___
H3	Durant les 30 derniers jours, sans compter les jours où vous étiez totalement incapable, pendant combien de temps avez-vous diminué ou réduit vos activités habituelles ou votre travail du fait de votre état de santé ?	Noter le nombre de jours ___

Notre entretien est maintenant terminé. Je vous remercie de votre participation.



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Flashcard 1

Etat de santé:

- **Maladies, malaises ou autres problèmes de santé**
- **Blessures**
- **Problèmes mentaux ou émotionnels**
- **Problèmes liés à l'alcool**
- **Problèmes liés à l'usage de drogues**

Avoir une difficulté lors d'une activité signifie:

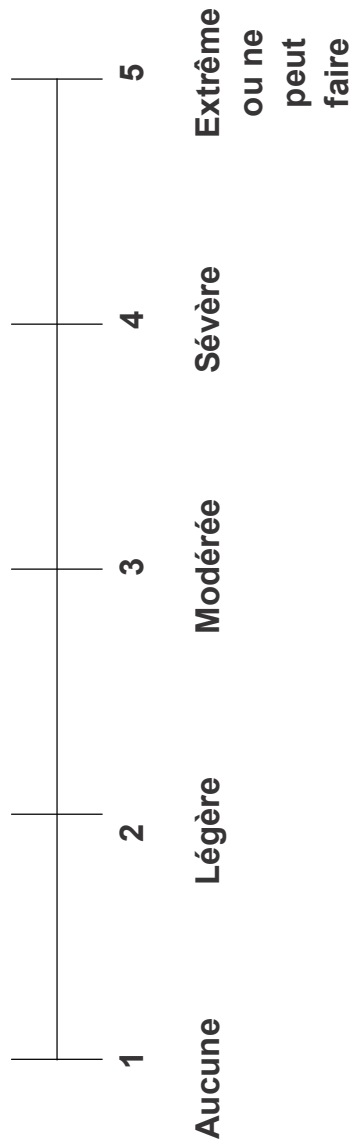
- **Effort accru**
- **Inconfort ou douleur**
- **Lenteur**
- **Différence dans la manière d'exécuter une activité**

Penser aux 30 derniers jours seulement.

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Flashcard 2



Incontinence Severity Index (ISI)

Please answer the following 2 questions.

1. How often do you experience urinary leakage? (Please check one)

	Score
<input type="checkbox"/> Never, I do not leak urine	0
<input type="checkbox"/> Less than once a month	1
<input type="checkbox"/> A few times a month	2
<input type="checkbox"/> A few times a week	3
<input type="checkbox"/> Every day and/or night	4

2. How much urine do you lose each time? (Please check one)

	Score
<input type="checkbox"/> None, I do not leak urine	0
<input type="checkbox"/> Drops	1
<input type="checkbox"/> Small Splashes	2
<input type="checkbox"/> More	3

Thank you for answering these questions.

Scoring: Multiply question 1 score by question 2 score for the total score.

ISI category:

- None
- Slight (1-2)
- Moderate (3-6)
- Severe (8-9)
- Very severe (12)

Hanley J, Capewell A, Hagen S. Validity study of the severity index, a simple measure of urinary incontinence in women. Bmj. 2001 May 5;322(7294):1096-7.

ECHELLE DITROVIE

Au cours des 4 dernières semaines, vos troubles urinaires :

	Pas du tout	Un peu	Moyennement	Beaucoup	Enormément
(1) vous ont-ils gênés lorsque vous étiez à l'extérieur de chez vous ?	1	2	3	4	5
(2) vous ont-ils gênés pour faire les courses ou les achats ?	1	2	3	4	5
(3) vous ont-ils gênés pour porter quelque chose de lourd ?	1	2	3	4	5
(4) ont nécessités que vous interrompiez fréquemment votre travail ou vos activités quotidiennes ?	1	2	3	4	5

Au cours des 4 dernières semaines, à cause de vos troubles urinaires, avec quelle fréquence :

	Jamais	Rarement	de temps en temps	souvent	en permanence
(5) avez-vous éprouvé un sentiment de honte, de dégradation ?	1	2	3	4	5
(6) avez vous craint de sentir mauvais ?	1	2	3	4	5
(7) avez-vous perdu patience ?	1	2	3	4	5
(8) avez-vous craint de sortir de chez vous ?	1	2	3	4	5
(9) avez-vous été obligé de vous relever plusieurs fois pendant votre sommeil ?	1	2	3	4	5

(10) Compte tenu de vos troubles urinaires, comment évaluer vous actuellement votre qualité de vie ? (entourez la réponse de votre choix)

1	2	3	4	5
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Excellente

Mauvaise

TOTAL :

SCORE GLOBAL : somme des scores aux 10 questions divisé par 10

INTERPRETATION DU SCORE :

1 = correspond à une patiente peu gênée dans ses activités, son psychisme, son sommeil et qui a une excellente qualité de vie

5 = correspond à une patiente extrêmement gênée dans ses activités, son psychisme, son sommeil et qui a une mauvaise qualité de vie

FEMALE SEXUAL FUNCTION INDEX (FSFI)

Instructions : Les questions suivantes portent sur vos sentiments et vos réactions sur le plan sexuel au cours des 4 dernières semaines. Veuillez répondre à ces questions aussi sincèrement et clairement que possible. Vos réponses resteront strictement confidentielles. Lorsque vous répondrez aux questions, tenez compte des définitions suivantes :

L'activité sexuelle peut comprendre les caresses, les préliminaires, la masturbation et la pénétration vaginale. Le rapport sexuel se définit comme la pénétration (l'introduction) du pénis.

La stimulation sexuelle comprend, par exemple, les préliminaires avec un partenaire, la masturbation et les fantasmes sexuels.

Le désir sexuel est un sentiment qui comprend le désir d'avoir une activité sexuelle, le fait d'être réceptive aux avances sexuelles d'un partenaire et d'avoir des pensées ou des fantasmes à propos de l'acte sexuel.

Q1: Au cours des 4 dernières semaines, avez-vous ressenti un désir sexuel ?

5 = Presque toujours ou toujours	4 = La plupart du temps (plus d'une fois sur deux)	3 = Parfois (environ une fois sur deux)	2 = Rarement (moins d'une fois sur deux)	1 = Presque jamais ou jamais
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Q2 : Au cours des 4 dernières semaines, quel a été votre niveau (degré) de désir sexuel ?

5 = Très élevé	4 = Élevé	3 = Moyen	2 = Faible	1 = Très faible ou inexistant
----------------	-----------	-----------	------------	-------------------------------

L'excitation sexuelle est une sensation qui comprend à la fois des aspects physiques et psychologiques. Elle peut comprendre des sensations de chaleur ou de picotement au niveau des organes génitaux, la lubrification (humidité) du vagin ou des contractions musculaires.

Q3: Au cours des 4 dernières semaines, vous êtes-vous sentie excitée sexuellement pendant une activité sexuelle ou un rapport sexuel ?

5 = Presque toujours ou toujours	4 = La plupart du temps (plus d'une fois sur deux)	3 = Parfois (environ une fois sur deux)	2 = Rarement (moins d'une fois sur deux)	1 = Presque jamais ou jamais	0 = Aucune activité sexuelle
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Q4: Au cours des 4 dernières semaines, quel a été votre niveau (degré) d'excitation sexuelle pendant une activité sexuelle ou un rapport sexuel ?

5 = Très élevé	4 = Élevé	3 = Moyen	2 = Faible	1 = Très faible ou inexistant	0 = Aucune activité sexuelle
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Q5: Au cours des 4 dernières semaines, à quel point vous êtes-vous sentie sûre de votre capacité à être sexuellement excitée pendant une activité sexuelle ou un rapport sexuel ?

5 = Extrêmement sûre	4 = Très sûre	3 = Moyennement sûre	2 = Peu sûre	1 = Très peu sûre ou pas sûre du tout	0 = Aucune activité sexuelle
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Q6: Au cours des 4 dernières semaines, avez-vous été satisfaite de votre degré d'excitation pendant une activité sexuelle ou un rapport sexuel ?

5 = Presque toujours ou toujours	4 = La plupart du temps (plus d'une fois sur deux)	3 = Parfois (environ une fois sur deux)	2 = Rarement (moins d'une fois sur deux)	1 = Presque jamais ou jamais	0 = Aucune activité sexuelle
----------------------------------	--	---	--	------------------------------	------------------------------

Q7: Au cours des 4 dernières semaines, votre vagin était-il lubrifié (humide) pendant une activité sexuelle ou un rapport sexuel ?

5 = Presque toujours ou toujours	4 = La plupart du temps (plus d'une fois sur deux)	3 = Parfois (environ une fois sur deux)	2 = Rarement (moins d'une fois sur deux)	1 = Presque jamais ou jamais	0 = Aucune activité sexuelle
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Q8: Au cours des 4 dernières semaines, à quel point vous a-t-il été difficile d'avoir le vagin lubrifié (humide) pendant une activité sexuelle ou un rapport sexuel ?

5 = Pas difficile	4 = Légèrement difficile	3 = Difficile	2 = Très difficile	1 = Extrêmement difficile ou impossible	0 = Aucune activité sexuelle
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Q9: Au cours des 4 dernières semaines, la lubrification (humidité) de votre vagin a-t-elle duré jusqu'à la fin d'une activité sexuelle ou d'un rapport sexuel ?

5 = Presque toujours ou toujours	4 = La plupart du temps (plus d'une fois sur deux)	3 = Parfois (environ une fois sur deux)	2 = Rarement (moins d'une fois sur deux)	1 = Presque jamais ou jamais	0 = Aucune activité sexuelle
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Q10: Au cours des 4 dernières semaines, à quel point vous a-t-il été difficile de conserver la lubrification (humidité) de votre vagin jusqu'à la fin d'une activité sexuelle ou d'un rapport sexuel ?

5 = Pas difficile	4 = Légèrement difficile	3 = Difficile	2 = Très difficile	1 = Extrêmement difficile ou impossible	0 = Aucune activité sexuelle
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Q11: Au cours des 4 dernières semaines, lorsque vous avez été stimulée sexuellement ou que vous avez eu un rapport sexuel, avez-vous atteint l'orgasme ?

5 = Presque toujours ou toujours	4 = La plupart du temps (plus d'une fois sur deux)	3 = Parfois (environ une fois sur deux)	2 = Rarement (moins d'une fois sur deux)	1 = Presque jamais ou jamais	0 = Aucune activité sexuelle
----------------------------------	--	---	--	------------------------------	------------------------------

Q12: Au cours des 4 dernières semaines, lorsque vous avez été stimulée sexuellement ou que vous avez eu un rapport sexuel, à quel point vous a-t-il été difficile d'atteindre l'orgasme ?

5 = Pas difficile	4 = Légèrement difficile	3 = Difficile	2 = Très difficile	1 = Extrêmement difficile ou impossible	0 = Aucune activité sexuelle
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Q13: Au cours des 4 dernières semaines, à quel point avez-vous été satisfaite de votre capacité à atteindre l'orgasme pendant une activité sexuelle ou un rapport sexuel ?

5 = Très satisfaite	4 = Moyennement satisfaite	3 = Ni satisfaite, ni insatisfaite	2 = Moyennement insatisfaite	1 = Très insatisfaite	0 = Aucune activité sexuelle
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Q14: Au cours des 4 dernières semaines, à quel point avez-vous été satisfaite de votre relation affective avec votre partenaire pendant une activité sexuelle ?

5 = Très satisfaite	4 = Moyennement satisfaite	3 = Ni satisfaite, ni insatisfaite	2 = Moyennement insatisfaite	1 = Très insatisfaite	0 = Aucune activité sexuelle
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Q15: Au cours des 4 dernières semaines, à quel point avez-vous été satisfaite de votre relation avec votre partenaire du point de vue sexuel ?

5 = Très satisfaite	4 = Moyennement satisfaite	3 = Ni satisfaite, ni insatisfaite	2 = Moyennement insatisfaite	1 = Très insatisfaite	0 = Aucune activité sexuelle
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Q16: Au cours des 4 dernières semaines, à quel point avez-vous été satisfaite de votre vie sexuelle en général ?

5 = Très satisfaite	4 = Moyennement satisfaite	3 = Ni satisfaite, ni insatisfaite	2 = Moyennement insatisfaite	1 = Très insatisfaite	0 = Aucune activité sexuelle
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Q17: Au cours des 4 dernières semaines, avez-vous ressenti une gêne ou de la douleur pendant la pénétration vaginale ?

5 = Presque toujours ou toujours	4 = La plupart du temps (plus d'une fois sur deux)	3 = Parfois (environ une fois sur deux)	2 = Rarement (moins d'une fois sur deux)	1 = Presque jamais ou jamais	0 = Aucune activité sexuelle
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Q18: Au cours des 4 dernières semaines, avez-vous ressenti une gêne ou de la douleur après la pénétration vaginale ?

5 = Presque toujours ou toujours	4 = La plupart du temps (plus d'une fois sur deux)	3 = Parfois (environ une fois sur deux)	2 = Rarement (moins d'une fois sur deux)	1 = Presque jamais ou jamais	0 = Aucune activité sexuelle
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Q19: Au cours des 4 dernières semaines, quel a été votre niveau (degré) de gêne ou de douleur pendant ou après la pénétration vaginale ?

5 = Très élevé	4 = Élevé	3 = Moyen	2 = Faible	1 = Très faible ou inexistant	0 = Aucune activité sexuelle
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Female Sexual Function Index (FSFI) ©

Subject Identifier _____

Date _____

INSTRUCTIONS: These questions ask about your sexual feelings and responses during the past 4 weeks. Please answer the following questions as honestly and clearly as possible. Your responses will be kept completely confidential. In answering these questions the following definitions apply:

Sexual activity can include caressing, foreplay, masturbation and vaginal intercourse.

Sexual intercourse is defined as penile penetration (entry) of the vagina.

Sexual stimulation includes situations like foreplay with a partner, self-stimulation (masturbation), or sexual fantasy.

CHECK ONLY ONE BOX PER QUESTION.

Sexual desire or interest is a feeling that includes wanting to have a sexual experience, feeling receptive to a partner's sexual initiation, and thinking or fantasizing about having sex.

1. Over the past 4 weeks, how **often** did you feel sexual desire or interest?

- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

2. Over the past 4 weeks, how would you rate your **level** (degree) of sexual desire or interest?

- Very high
- High
- Moderate
- Low
- Very low or none at all

Sexual arousal is a feeling that includes both physical and mental aspects of sexual excitement. It may include feelings of warmth or tingling in the genitals, lubrication (wetness), or muscle contractions.

3. Over the past 4 weeks, how **often** did you feel sexually aroused ("turned on") during sexual activity or intercourse?

- No sexual activity
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

4. Over the past 4 weeks, how would you rate your **level** of sexual arousal ("turn on") during sexual activity or intercourse?

- No sexual activity
- Very high
- High
- Moderate
- Low
- Very low or none at all

5. Over the past 4 weeks, how **confident** were you about becoming sexually aroused during sexual activity or intercourse?

- No sexual activity
- Very high confidence
- High confidence
- Moderate confidence
- Low confidence
- Very low or no confidence

6. Over the past 4 weeks, how **often** have you been satisfied with your arousal (excitement) during sexual activity or intercourse?

- No sexual activity
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

7. Over the past 4 weeks, how **often** did you become lubricated ("wet") during sexual activity or intercourse?

- No sexual activity
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

8. Over the past 4 weeks, how **difficult** was it to become lubricated ("wet") during sexual activity or intercourse?

- No sexual activity
- Extremely difficult or impossible
- Very difficult
- Difficult
- Slightly difficult
- Not difficult

9. Over the past 4 weeks, how often did you **maintain** your lubrication ("wetness") until completion of sexual activity or intercourse?

- No sexual activity
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

10. Over the past 4 weeks, how **difficult** was it to maintain your lubrication ("wetness") until completion of sexual activity or intercourse?

- No sexual activity
- Extremely difficult or impossible
- Very difficult
- Difficult
- Slightly difficult
- Not difficult

11. Over the past 4 weeks, when you had sexual stimulation or intercourse, how **often** did you reach orgasm (climax)?

- No sexual activity
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

12. Over the past 4 weeks, when you had sexual stimulation or intercourse, how **difficult** was it for you to reach orgasm (climax)?

- No sexual activity
- Extremely difficult or impossible
- Very difficult
- Difficult
- Slightly difficult
- Not difficult

13. Over the past 4 weeks, how **satisfied** were you with your ability to reach orgasm (climax) during sexual activity or intercourse?

- No sexual activity
- Very satisfied
- Moderately satisfied
- About equally satisfied and dissatisfied
- Moderately dissatisfied
- Very dissatisfied

14. Over the past 4 weeks, how **satisfied** have you been with the amount of emotional closeness during sexual activity between you and your partner?

- No sexual activity
- Very satisfied
- Moderately satisfied
- About equally satisfied and dissatisfied
- Moderately dissatisfied
- Very dissatisfied

15. Over the past 4 weeks, how **satisfied** have you been with your sexual relationship with your partner?

- Very satisfied
- Moderately satisfied
- About equally satisfied and dissatisfied
- Moderately dissatisfied
- Very dissatisfied

16. Over the past 4 weeks, how **satisfied** have you been with your overall sexual life?

- Very satisfied
- Moderately satisfied
- About equally satisfied and dissatisfied
- Moderately dissatisfied
- Very dissatisfied

17. Over the past 4 weeks, how **often** did you experience discomfort or pain during vaginal penetration?

- Did not attempt intercourse
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

18. Over the past 4 weeks, how **often** did you experience discomfort or pain following vaginal penetration?

- Did not attempt intercourse
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

19. Over the past 4 weeks, how would you rate your **level** (degree) of discomfort or pain during or following vaginal penetration?

- Did not attempt intercourse
- Very high
- High
- Moderate
- Low
- Very low or none at all

Thank you for completing this questionnaire

FSFI SCORING APPENDIX

Question	Response Options
1. Over the past 4 weeks, how often did you feel sexual desire or interest?	5 = Almost always or always 4 = Most times (more than half the time) 3 = Sometimes (about half the time) 2 = A few times (less than half the time) 1 = Almost never or never
2. Over the past 4 weeks, how would you rate your level (degree) of sexual desire or interest?	5 = Very high 4 = High 3 = Moderate 2 = Low 1 = Very low or none at all
3. Over the past 4 weeks, how often did you feel sexually aroused ("turned on") during sexual activity or intercourse?	0 = No sexual activity 5 = Almost always or always 4 = Most times (more than half the time) 3 = Sometimes (about half the time) 2 = A few times (less than half the time) 1 = Almost never or never
4. Over the past 4 weeks, how would you rate your level of sexual arousal ("turn on") during sexual activity or intercourse?	0 = No sexual activity 5 = Very high 4 = High 3 = Moderate 2 = Low 1 = Very low or none at all
5. Over the past 4 weeks, how confident were you about becoming sexually aroused during sexual activity or intercourse?	0 = No sexual activity 5 = Very high confidence 4 = High confidence 3 = Moderate confidence 2 = Low confidence 1 = Very low or no confidence
6. Over the past 4 weeks, how often have you been satisfied with your arousal (excitement) during sexual activity or intercourse?	0 = No sexual activity 5 = Almost always or always 4 = Most times (more than half the time) 3 = Sometimes (about half the time) 2 = A few times (less than half the time) 1 = Almost never or never

7. Over the past 4 weeks, how **often** did you become lubricated ("wet") during sexual activity or intercourse?

0 = No sexual activity
5 = Almost always or always
4 = Most times (more than half the time)
3 = Sometimes (about half the time)
2 = A few times (less than half the time)
1 = Almost never or never

8. Over the past 4 weeks, how **difficult** was it to become lubricated ("wet") during sexual activity or intercourse?

0 = No sexual activity
1 = Extremely difficult or impossible
2 = Very difficult
3 = Difficult
4 = Slightly difficult
5 = Not difficult

9. Over the past 4 weeks, how often did you **maintain** your lubrication ("wetness") until completion of sexual activity or intercourse?

0 = No sexual activity
5 = Almost always or always
4 = Most times (more than half the time)
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2 = Very difficult
3 = Difficult
4 = Slightly difficult
5 = Not difficult

11. Over the past 4 weeks, when you had sexual stimulation or intercourse, how **often** did you reach orgasm (climax)?

0 = No sexual activity
5 = Almost always or always
4 = Most times (more than half the time)
3 = Sometimes (about half the time)
2 = A few times (less than half the time)
1 = Almost never or never

12. Over the past 4 weeks, when you had sexual stimulation or intercourse, how **difficult** was it for you to reach orgasm (climax)?

0 = No sexual activity
1 = Extremely difficult or impossible
2 = Very difficult
3 = Difficult
4 = Slightly difficult
5 = Not difficult

13. Over the past 4 weeks, how **satisfied** were you with your ability to reach orgasm (climax) during sexual activity or intercourse?

0 = No sexual activity
5 = Very satisfied
4 = Moderately satisfied
3 = About equally satisfied and dissatisfied
2 = Moderately dissatisfied
1 = Very dissatisfied

14. Over the past 4 weeks, how **satisfied** have you been with the amount of emotional closeness during sexual activity between you and your partner?

0 = No sexual activity
5 = Very satisfied
4 = Moderately satisfied
3 = About equally satisfied and dissatisfied
2 = Moderately dissatisfied
1 = Very dissatisfied

15. Over the past 4 weeks, how **satisfied** have you been with your sexual relationship with your partner?

5 = Very satisfied
4 = Moderately satisfied
3 = About equally satisfied and dissatisfied
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16. Over the past 4 weeks, how **satisfied** have you been with your overall sexual life?

5 = Very satisfied
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3 = About equally satisfied and dissatisfied
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1 = Very dissatisfied

17. Over the past 4 weeks, how **often** did you experience discomfort or pain during vaginal penetration?

0 = Did not attempt intercourse
1 = Almost always or always
2 = Most times (more than half the time)
3 = Sometimes (about half the time)
4 = A few times (less than half the time)
5 = Almost never or never

18. Over the past 4 weeks, how **often** did you experience discomfort or pain following vaginal penetration?

0 = Did not attempt intercourse
1 = Almost always or always
2 = Most times (more than half the time)
3 = Sometimes (about half the time)
4 = A few times (less than half the time)
5 = Almost never or never

19. Over the past 4 weeks, how would you rate your **level** (degree) of discomfort or pain during or following vaginal penetration?

0 = Did not attempt intercourse
1 = Very high
2 = High
3 = Moderate
4 = Low
5 = Very low or none at all

FSFI DOMAIN SCORES AND FULL SCALE SCORE

The individual domain scores and full scale (overall) score of the FSFI can be derived from the computational formula outlined in the table below. For individual domain scores, add the scores of the individual items that comprise the domain and multiply the sum by the domain factor (see below). Add the six domain scores to obtain the full scale score. It should be noted that within the individual domains, a domain score of zero indicates that the subject reported having no sexual activity during the past month. Subject scores can be entered in the right-hand column.

Domain	Questions	Score Range	Factor	Minimum Score	Maximum Score	Score
Desire	1, 2	1 – 5	0.6	1.2	6.0	
Arousal	3, 4, 5, 6	0 – 5	0.3	0	6.0	
Lubrication	7, 8, 9, 10	0 – 5	0.3	0	6.0	
Orgasm	11, 12, 13	0 – 5	0.4	0	6.0	
Satisfaction	14, 15, 16	0 (or 1) – 5	0.4	0.8	6.0	
Pain	17, 18, 19	0 – 5	0.4	0	6.0	
Full Scale Score Range				2.0	36.0	

PFSSS

Post Fistula Incontinence Severity Scale

For reprints, questions, or to learn about our other protocols email us at info@ghit.org



Level 0		
Level 1		
Level 2		
Level 3		
Level 4		
Level 5		
Level 6		

Standard Protocol for Administering the PFISS

Explain context

1. Explain to her (patient) that the lady in the picture is a repaired fistula patient.
2. Let her know that the lady was sitting for about 30 minutes (in the picture where the person is sitting), then she gets off the bench after about 30 minutes to stand
3. Ask her if she is wet when she sits or walks

Confirm understanding

4. Starting from Level 0, ask her to show you if the lady in the picture is dry or wet
5. If she says the lady is wet, ask her to show you the urine in both pictures
6. Then ask her to compare 2 consecutive Levels and tell you which is the worst one

Obtain result

7. Discuss with her that she is a repaired patient like the lady in the picture
8. Ask her to show you which picture best describes her situation (incontinence)
9. Give her time to look the pictures well and tell you the result

Appendix 3. Site Information

3a. Site readiness survey

3b. List of minimum necessary equipment

Site Survey for Capacity Building for Physiotherapy Services for Fistula & Pelvic Health

1. Please indicate the best description of your work:

Job title:

Affiliation(s):

2. What best describes your role in international fistula care and women's health (check all that apply):

- Direct clinical care Program management Community reintegration
 Psychosocial support/services Research Clinical education/mentorship
 International partner Other (please describe):

3. In what settings do you work in international fistula care and women's health: Please check all that apply and write in where needed:

- Tertiary referral hospital Regional referral hospital District hospital
 University Local health center/clinic Outreach site/camp
 Other (please describe):

4. Please indicate average volume of cases per month (or per year) of the following:

Fistula _____ per month / per year (circle one)
 Prolapse _____ per month / per year (circle one)
 Vaginal births _____ per month / per year (circle one)
 Cesarean sections _____ per month / per year (circle one)

5. Please indicate the type of providers involved in any of the programs or services listed above. Check all the apply:

- Obstetrician/gynecologists Internal medicine physicians Gynecologic surgeons
 Surgical assistants Medical officers Nurses
 Certified nurse midwives Nursing assistants Social assistants/social workers
 Psychologist Researcher/data manager Other (please explain)

6. Does your facility offer physical therapy/physiotherapy services? Yes No

a. If yes, who is providing these services?

- Physiotherapist - university-trained
 Physiotherapist - technician/non-university trained
 Nursing staff
 Other (explain) _____

b. If yes, is physiotherapy a standard component of care for the following problems/condition:

Adult orthopedics/musculoskeletal health (i.e. fractures, joint pain, arthritis)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Service not provided
Pediatric orthopedics/musculoskeletal health (i.e. fractures, clubfoot, bone/joint deformities)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Service not provided

Adult neurologic/neurosurgical care (i.e. stroke, brain injury, neurodegenerative disease)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Service not provided
Pediatric neurologic/neurosurgical care (i.e. cerebral palsy, spina bifida, brain injury)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Service not provided
Burns/plastic surgery	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Service not provided
Gynecologic/obstetric fistula surgery	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Service not provided
Pelvic organ prolapse surgery	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Service not provided
Pre-natal/post-partum maternal health care	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Service not provided

7. Please describe the physical space available for/currently used for physiotherapy services:

7a. Please indicate which of the following are readily available:

- Private treatment room → Linens
 Disposable gloves On-site laundry

8. How frequently are the following conditions encountered in your fistula program, and in general in the Ob/Gyn department? Please also indicate the current utilization of physiotherapy for each condition.

Condition	Frequency this condition is encountered	Is any physiotherapy provided to address
Pelvic pain	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue
Urge urinary incontinence	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue
Stress urinary incontinence	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue
Anal incontinence	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue
Constipation	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue
Pelvic organ prolapse	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue
Vaginal stenosis/fibrosis	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue
Pelvic or abdominal scar tissue, other	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue

Foot drop	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue
Prenatal/postpartum musculoskeletal problems	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue
Pre/post-operative therapy	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue
Other physical issues affecting ambulation & community mobility	<input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Always	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did not know physio could address this issue

9. Please indicate if you have interest in physiotherapy program development and capacity building at your facility with respect to the following conditions:

Condition	
Pelvic pain	<input type="checkbox"/> Yes <input type="checkbox"/> No
Urge urinary incontinence	<input type="checkbox"/> Yes <input type="checkbox"/> No
Stress urinary incontinence	<input type="checkbox"/> Yes <input type="checkbox"/> No
Anal incontinence	<input type="checkbox"/> Yes <input type="checkbox"/> No
Constipation	<input type="checkbox"/> Yes <input type="checkbox"/> No
Pelvic organ prolapse	<input type="checkbox"/> Yes <input type="checkbox"/> No
Vaginal stenosis/fibrosis	<input type="checkbox"/> Yes <input type="checkbox"/> No
Pelvic or abdominal scar tissue, other	<input type="checkbox"/> Yes <input type="checkbox"/> No
Foot drop	<input type="checkbox"/> Yes <input type="checkbox"/> No
Prenatal/postpartum musculoskeletal problems	<input type="checkbox"/> Yes <input type="checkbox"/> No
Pre/post-operative therapy	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other physical issues affecting ambulation & community mobility	<input type="checkbox"/> Yes <input type="checkbox"/> No

10. What are barriers do you encounter to implementing a physiotherapy service program that is integrated with women's and maternal health, including fistula program (check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> Physiotherapy is not recognized as a relevant service | <input type="checkbox"/> No physiotherapy department |
| <input type="checkbox"/> Lack of skilled physiotherapy providers | <input type="checkbox"/> Lack of funding for physiotherapy development |
| <input type="checkbox"/> Lack of education | <input type="checkbox"/> Lack of equipment |
| <input type="checkbox"/> Lack of designated space | <input type="checkbox"/> Other (please describe): |

11. Please share any additional insights or comments you have regarding this topic. We would like to understand current levels of physiotherapy service, especially in the area of fistula and maternal health, and to inform our plans to support program development and capacity building.

Minimum necessary requirements for PFPT integration

Examination/Treatment Space	
Minimum Recommended Number	
1	Private treatment space with light: <input type="checkbox"/> Overhead lighting Y/N <input type="checkbox"/> Task lighting Y/N <input type="checkbox"/> Natural lighting Y/N
1 each	Examination or treatment table: <input type="checkbox"/> Gyn table with bedpan <input type="checkbox"/> Regular exam table with absorbent chuck pads (1/patient)
2	Stool/chair
1 per patient/day	Sheets for draping (may be laundered between uses)
1 per patient	Towels or disposable wipes
1 pair per patient	Exam gloves (reliable steady supply; may require 2-6 gloves per treatment session)
N/A	Lubricant (may be commercial or locally sourced 'clean' oil such as coconut, olive, sesame, etc.)
N/A	Massage lotion or cream (for external use)
N/A	Disinfectant spray (supplies for cleaning examination table between use)
1	Hand washing station

Patient (and staff) education materials	
Minimum Recommended Number	
1	Female pelvic model with musculature
1 each	Anatomic posters <ul style="list-style-type: none"> <input type="checkbox"/> Female pelvic floor <input type="checkbox"/> Female pelvic organs <input type="checkbox"/> Pregnancy (optional)
1 (2-3 dependent on # patients)	Dedicated staff (requires time for training & ability to take on new/additional patients)

Exercise equipment	
Minimum Recommended Number	
N/A	Dedicated space (Large room or hallway without significant foot traffic, courtyard or outdoor space with some type of ground cover)
1 per patient	Exercise mats/yoga mats

1-2 per patient	Bolsters/cushions/pillows
Varied resistance and weight levels	Resistance bands and/or light-medium weights
1 each	Assistive devices: <input type="checkbox"/> Walker Y/N <input type="checkbox"/> Crutches Y/N <input type="checkbox"/> Canes Y/N
	<u>OPTIONAL</u> <input type="checkbox"/> Dilators of various sizes (sterilization procedure will vary) <input type="checkbox"/> Condoms (for use with dilators) <input type="checkbox"/> Mirror <input type="checkbox"/> Physioballs/Exercise balls <input type="checkbox"/> Pelvic floor biofeedback <input type="checkbox"/> Neuromuscular electrical stimulation unit with supply of electrodes (may be used for muscle and nerve injury on the extremities, i.e. foot drop) <input type="checkbox"/> Pelvic floor muscle electrical stimulation with supply of vaginal probes <input type="checkbox"/> Ankle-foot orthoses (AFOs) <input type="checkbox"/> Practice staircase/steps <input type="checkbox"/> Stationary/recumbent bike or floor foot pedals

Appendix 4. Summary table of physiotherapy interventions by health condition and associated impairments

Considerations in Physical Therapy for Women's Health

FISTULA		Pelvic Organ Prolapse (POP)		MATERNITY	
PROBLEM	TREATMENT	PROBLEM	TREATMENT	PROBLEM	TREATMENT
Fibrosis/ stenosis	Manual therapy Vaginal dilators Breathing and relaxation exercises	Symptom	Distinguish between pain and pressure/bulge	<u>Prenatal:</u> Back/pelvic girdle pain	Body mechanics (especially with lifting, chores, childcare) PFME and general exercise Labor support/education
Weakness/ Incoordination	Pelvic Floor Muscle Exercise (PFME)	Grade I-II	Body mechanics Lifestyle counseling PFME Breathing exercises GOAL: prevent progression	<u>Post-partum</u> General:	Functional mobility Body mechanics General exercises
Urinary Incontinence	Bladder training PFME Breathing exercises Functional activities	Grade III-IV	Surgery Body mechanics PFME Breathing exercises GOAL: Optimize surgical outcomes	<u>Post-partum</u> Injury: (1) Perineal tear/ episiotomy (2) Pubic symphysis dysfunction	(1) Manual therapy, scar massage, PFME (2) Stabilization exercise training, stability belt, assistive walking devices (walker, cane, crutches)



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Fistula Care



EngenderHealth
for a better life

FISTULA		Pelvic Organ Prolapse (POP)		MATERNITY	
				(3) POP	(3) Same principles as POP outline, BUT consider tissue healing and effect of breastfeeding
				(4) PFM weakness	(4) Same principles as PFM weakness in fistula outline, BUT consider (a) tissue healing and (b) effect of breastfeeding (c) duration of labor and suspicion of nerve and/or muscle damage
Pain	Manual therapy Stretching exercise Psychological consult Breathing and relaxation exercises	Pain	Manual therapy Stretching exercise Reduce effect of gravity on POP	Pain	Manual therapy Stretching exercise
Mobility/ walking problems	Physiotherapy	Mobility/ walking problems	Physiotherapy	Mobility/ walking problems	Physiotherapy

