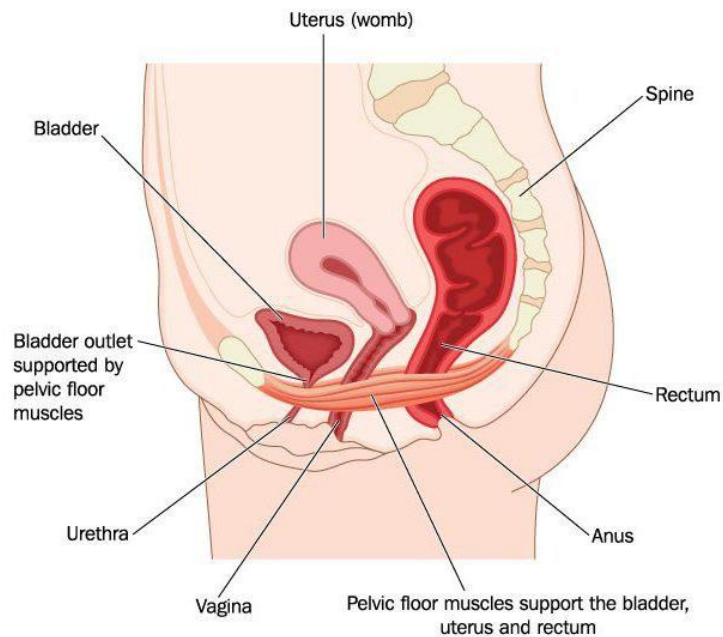


# Pelvic Floor



## Lesson Overview

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In this lesson, we focus on the pelvic floor, including its contribution to core functioning.

### Objective

*Become proficient in describing the pelvic floor, its role in core functioning, potential issues, and teachings that can contribute to pelvic floor health.*

### Description

*Describe the location and healthy movement of the pelvic floor. Explain how pelvic floor muscles contribute to core functioning. Describe potential issues associated with the pelvic floor and what may cause the issues. Describe teachings and practices that can contribute to pelvic floor health.*

### Questions Answered Here

- 1. Describe the pelvic floor. Provide a visual and remark on its function and sensitivities.*
- 2. Where is the pelvic floor located?*
- 3. What defines healthy, natural movement of the pelvic floor?*
- 4. Describe three general functions of the pelvic floor.*
- 5. How do pelvic floor muscles contribute to core functioning?*
- 6. What are some potential issues associated with the pelvic floor?*
- 7. What factors may lead to pelvic floor weakness?*
- 8. What factors may lead to a tight pelvic floor?*
- 9. What other habits, practices and factors may cause pelvic floor issues?*
- 10. What teachings and practices may contribute to pelvic floor health?*

## Introduction

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The pelvic floor is often described as a “hammock” of muscles.

- This “hammock” is designed to keep the pelvic organs (bladder, uterus and rectum) in place and to support spinal and pelvic stability.
- These muscles respond to an increase in intra-abdominal pressure (coughing, sneezing, laughing or straining).
- The urethra, vagina and rectum pass through the pelvic floor muscles and are affected by their contractions and relaxations.

The “bony landmarks” that define the pelvic floor are:

1. Pubic bone in front
2. Tailbone in back
3. Sit bones (Ischial Tuberosities) on either side

Healthy, natural movement of the pelvic floor includes both lifting and narrowing, plus widening and releasing.

### Visuals: Trampoline and/or Kite

*An optimally functioning pelvic floor [is like] a trampoline. It supports the weight of all our pelvic organs and allows any extra load to just bounce off its healthy, elastic fibers, tensing and releasing naturally... Eric Franklin compares natural movement of the pelvic floor to a kite. As you stand up the pelvic floor slightly lifts and narrows similarly to a kite picking the wind and taking off. Reversely, as you sit down (with untucked tail, using your sitbones) the pelvic floor widens and releases to its full length, like a kite descending down, opening and landing. – Ivanna Demmel*

# Functions

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## Overview

1. The pelvic floor supports the bladder and reproductive organs (including a growing uterus in pregnancy).
2. As a part of the core, pelvic floor muscles work in cooperation with the deep abdominal and deep back muscles to stabilize the low back.
3. A healthy pelvic floor is associated with enhancing sexual comfort, sensation and arousal.

## Specifically

Karlyn Driedger, PT, BScKIN, MScPT explains these five important functions of the pelvic floor:

1. Sphincteric
2. Support
3. Stability
4. Sexual
5. Sump-pump

### Sphincteric

- The muscles of the pelvic floor wrap around and control the opening of the bladder and rectum.
- They prevent leakage when there is an increase in intra-abdominal pressure.
- These muscles also have to relax appropriately to allow for urination and bowel movements.

### Support

- The muscles support pelvic organs against gravity and increased intra-abdominal pressure.
- In women, excess strain on the pelvic floor (during pregnancy) or weakening of the pelvic floor (age, hormonal changes) can lead to prolapse.

### Stability

- The pelvic muscles have attachments to the pelvis and hips and are an important part of the “core.”
- These muscles work in cooperation with hip, abdominal and back muscles to control movement of the sacroiliac and hip joints as well as stabilization of the low back.

### Sexual

- A healthy pelvic floor is associated with enhancing sexual comfort, sensation and arousal.

### Sump-pump

- The pelvic floor muscles act as a blood/lymph pump for the pelvis.
- A loss in this action can contribute to swelling or congestion.

# Potential Issues

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## Overview

Pelvic floor issues may include:

1. Weak pelvic floor muscles
2. Tight pelvic floor muscles
3. Pelvic floor muscles overpowered by other muscles

## Potential Causes of Pelvic Floor Weakness

- Pregnancy and childbirth
- Chronic constipation
- Aging
- Menopause
- Surgery
- Factors that raise intra-abdominal pressure

Factors that raise intra-abdominal pressure include:

- Chronic coughing
- Heavy lifting
- High impact exercise
- Being overweight or obese

## Potential Causes of Pelvic Floor Tightness

- Stress
- Anxiety
- Overactive bladder
- Poor posture

## More Potential Causes of Issues

Other habits, practices and factors that can cause issues include:

1. Constantly tucking the coccyx (tailbone).
2. Practicing Kegels when pelvic floor muscles are tight.
3. Practicing exercises that induce muscular imbalance, particularly those that develop overly strong abdominals in relationship to a weak pelvic floor.
4. Issues in recruiting pelvic floor muscles can occur as a result of regular straining with bowel movements, constant coughing, pregnancy weight, childbirth, infection, pain, poor movement patterns, trauma and surgery.

### **Can't Lift, Can't Relax, or are Overpowered**

*The pelvic floor muscles cause problems when they are: weak and not strong enough to lift when you run or sneeze; tight and cannot relax; overpowered by excessive tightness in trunk and waist muscles. – Pelvic Floor & Core Works*

### **Habits That Don't Allow Pelvic Floor to Release**

*Untucking the tailbone opens the pelvic outlet, tucking it closes it – tightening the pelvic floor. The dog with his tail down between his legs is an equivalent of you sitting on your sacrum, the back supported by a chair or a couch. If you spend multiple hours a day in this position, your pelvic floor doesn't really have a chance to release and allow the muscle fibers to regain their natural length at resting state. So gradually it shortens. – Ivanna Demmel*

### **Kegels May Not Resolve Weakness**

*A Kegel is a muscular contraction. For women who have a tight pelvic floor, concentrically contracting the muscles regularly will simply aggravate the tension issue. Muscle that is either too long or too short looks the same when you measure its force production. Which means just because something is weak or unable to do a bout of work does not automatically imply that concentric contraction is the correct prescription. – Katy Bowman*

### **More on Limitation of Kegels**

*Kegel muscles mainly strengthen the muscle that “cuts off” the flow of urine, the puborectalis. They do not strengthen the backward acting muscles and ligaments which control other symptoms such as pain, urgency, nocturia, bowel and bladder emptying. – Peter Petros*

### **Kegels Can Over-Tighten, Leading to Weakness, Not Strength**

*The longtime runner and yoga and Pilates teacher was shocked [to learn]... her pelvic floor muscles were so weak she had developed pelvic organ prolapse... she'd spent years working her abs and religiously did Kegels to strengthen her pelvic floor muscles – part of the larger group of muscles we refer to as the “core.” How were these muscles not strong enough to do something as basic as keep her organs in place? Treacy's doc had a surprising answer: She'd actually been overworking her pelvic floor, causing an overtightening that led to weakness, not strength. “Think about what a tight muscle looks like,” says Treacy. “It lives in a shortened, contracted state, and because it's not pliable, it's actually not as strong as it could be.” – Meaghan Rabbitt*

### **Abdominal Muscle Strength Exceeds Pelvic Floor Ability**

*Your abdominal muscle strength may exceed the ability of your pelvic floor. If you have or are at risk of pelvic floor problems, then it is important you train for the ‘weakest link’ and put your pelvic floor first. There are a number of ways to modify your core exercises to protect your pelvic floor. Cease strong abdominal exercises... [and practice] pelvic floor safe core exercises. – Pelvic Floor First*

### **Tight Inner Thigh Muscles**

*Tight muscles in the inner thighs can also contribute to pelvic floor issues. – Lynn Shattuck, Huffington Post*

## Practices

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### Introduction

- To promote healthy pelvic floor functioning, learning proper contraction of pelvic floor muscles is a vital aspect of productive strengthening efforts. As with the TA, learning to identify and properly recruit pelvic floor muscles is a primary component of core activation.
- Traditional teaching of Kegels can lead to pelvic floor weakness rather than strength. Changing the way they are taught and practiced can lead to proper balance.
- Some exercises and pose examples that can contribute to pelvic health include Setu Bandhasana (Bridge Pose) (including a dynamic version of Bridge), Opposite Limb Extension, Plank Variations, Forearm Plank Variations and Wall Sit.

### Wall Sit



1. Stand facing away from a wall.
2. Place your back against the wall and then walk your feet out in front of you so that the wall is supporting you.
3. Bend your knees until they are at 90-degree angles and engage your pelvic floor. Keep your navel drawing up and in towards your spine so that your lower back is pressing into the wall.
4. Reach your arms straight out in front of you hold for 60 seconds, then release.

### Most Do Not Know How

*Unfortunately, 65% of people that think that they know how to contract their pelvic floor muscles are doing it incorrectly. – Diane Lee & Assoc Physiotherapy*

### Learning the Subtleties Important Before Strengthening

*Before trying to strengthen the pelvic floor muscles it's important to identify the slow, subtle action of correctly tightening and lifting without stronger muscles taking over. – Pelvic Floor & Core Works*

### Choosing Core Exercises To Avoid Muscular Imbalance

*Your abdominal muscle strength may exceed the ability of your pelvic floor. If you have or are at risk of pelvic floor problems, then it is important you train for the 'weakest link' and put your pelvic floor first. There are a number of ways to modify your core exercises to protect your pelvic floor. Cease [these] strong abdominal exercises:*

- *Sit ups, curl ups, crunches*
- *Abdominal exercises with medicine ball*
- *V-sit*
- *Hundreds*
- *Double leg lowers*
- *Plank position on hands and feet (eg 'hovers', full push ups)*

*Pelvic floor safe core exercises*

- *Single leg extension with one leg supported by a hand on stationary knee or moving foot on ball*
- *Knees side to side with feet on ball*
- *Modified plank on hands or knees with a slight bend at the hips*
- *Wall push ups*
- *Ball bridge (feet on ball or back on ball, +/- single leg lift)*
- *Arm and leg lift on all fours*
- *Leg lift sitting on the ball*
- *Shoulder rotations with back on the ball*
- *Standing balance work on the bosu or balance disc*

*Lift your pelvic floor first and hold it during the exercise, then relax afterwards. Notice how many repetitions you can do before your pelvic floor muscles tire. You may need to add some rests, or reduce the number of repetitions you do in a row, while your pelvic floor muscle fitness improves.*

*Please note: whilst these exercises are pelvic floor safe, you will also need to consider the number of repetitions, abdominal challenge, number of sets, length of rest and your fatigue level – which also affects your pelvic floor function. – Pelvic Floor First*

## More Exercise Examples

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### Exercise to Find Pelvic Floor Muscles

Lie on your back, or side, or sit with the spine in a neutral posture. Firmly palpate your abdomen 1-2 inches inside of your hip bones. Try the following cues to connect to (contract) your pelvic floor:

- Females – Think of your vagina as a clock, pubis is 12, tailbone is 6, left lateral wall is 3, right lateral wall is 9. Visualize drawing the 12 to the 6, the 6 to the 12 and finally gather the 3 and 9 toward the middle of the clock and gently lift.
- Females – Nod your clitoris down toward the vaginal opening, curl your tailbone toward your clitoris, now gently imagine sucking a jellybean up off of the floor toward your head.
- Females – Visualize ‘squeezing’/close off the urethra (as if to stop urine flow), hold this while you ‘squeeze’/close the anus (as if to stop flatulence) and gently lift.
- Males – visualize gently drawing your testicles up and forward into your abdomen. (aka ‘bring the boys home’).
- Males or Females – Think about a guy wire or line from the anus up to the back of your pubic bone and connect along this line.

– Diane Lee & Assoc Physiotherapy

### Changing How Kegels are Taught & Practiced

*The oft-given instruction to squeeze the muscles that stop the flow of urine “often leads to a tightening of the wrong muscles, which in turn can lead to everything from urinary incontinence and pain during sex to pelvic organ prolapse.” (Meghan Rabbitt)*

Consider these instructions instead:

*Picture the pelvic floor muscles between your two sitting bones.*

- Inhale, and as you exhale, draw the muscles together as if they were the two halves of an elevator door closing to meet in the middle.
- Once this door is closed, lift the elevator up and then release.

*Next, imagine the pelvic floor muscles between your pubic bone and tailbone.*

- Inhale, and as you exhale, draw those muscles together in the same elevator-door fashion, lift the elevator, and then release.

*Now, draw all four elevator doors together at once, meeting at one point in the middle, then lift and release. Repeat 5 times, and rest.*

– Meghan Rabbitt



### Inner Thigh Activation

*Some teach inner thigh activation to help with pelvic floor recruitment. For instructions on inner thigh activation, see "Core Integration with a Block" [here](#).*

### Squatting

*Reading Katy Bowman's last [book](#)... I've started to incorporate more movement into my life other than and independently from exercising. And especially, I've started to squat more, when playing with my toddler, picking things off the floor and even going to the toilet. Learning to untuck my tail has made me finally realize why I still had to push my baby out and not bear it gently down, letting the gravity do the job, in spite of all the birth preparations and beautiful relaxation techniques I mastered beforehand. - Ivanna Demmel*

## Online Resources

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Please see [online version](#) for links to more resources.