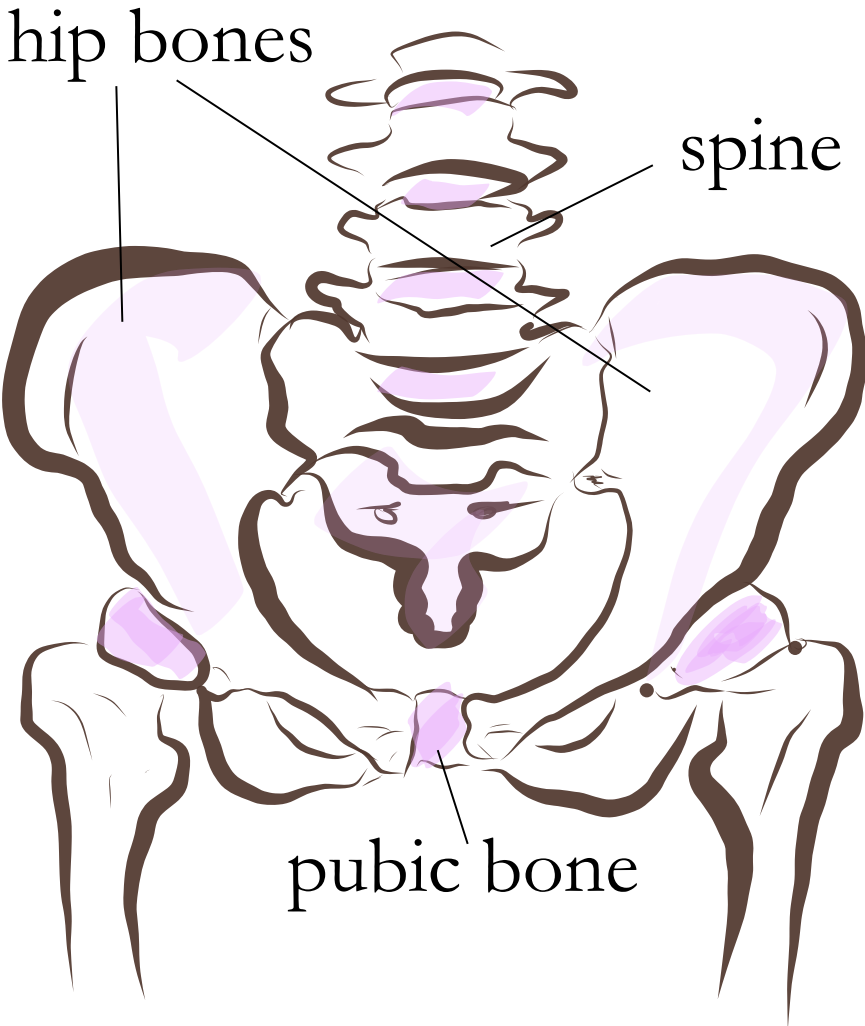


Implementing Physical Rehabilitation Services
into Comprehensive Fistula
and Maternity Care:

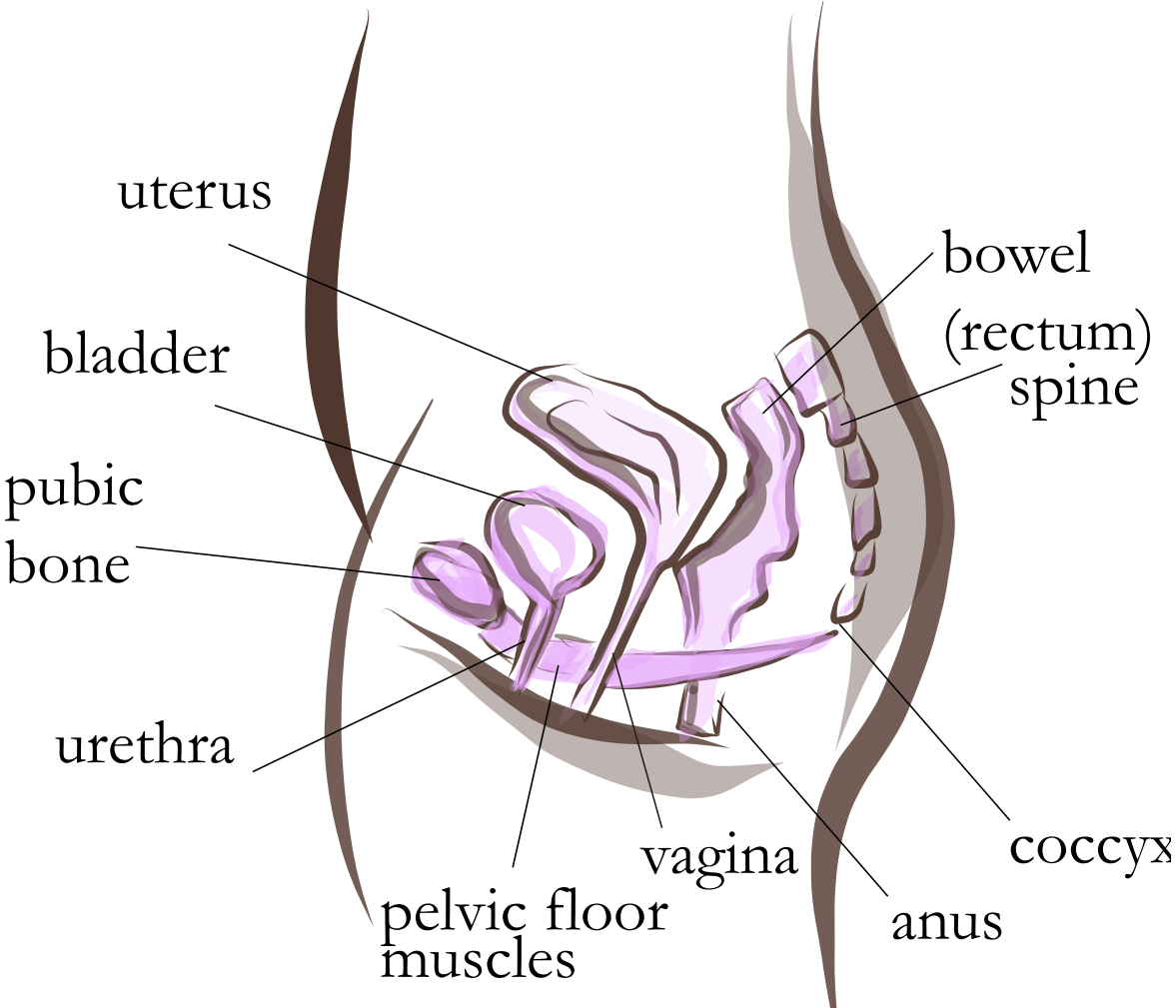
A Training Guide for Health Care Workers



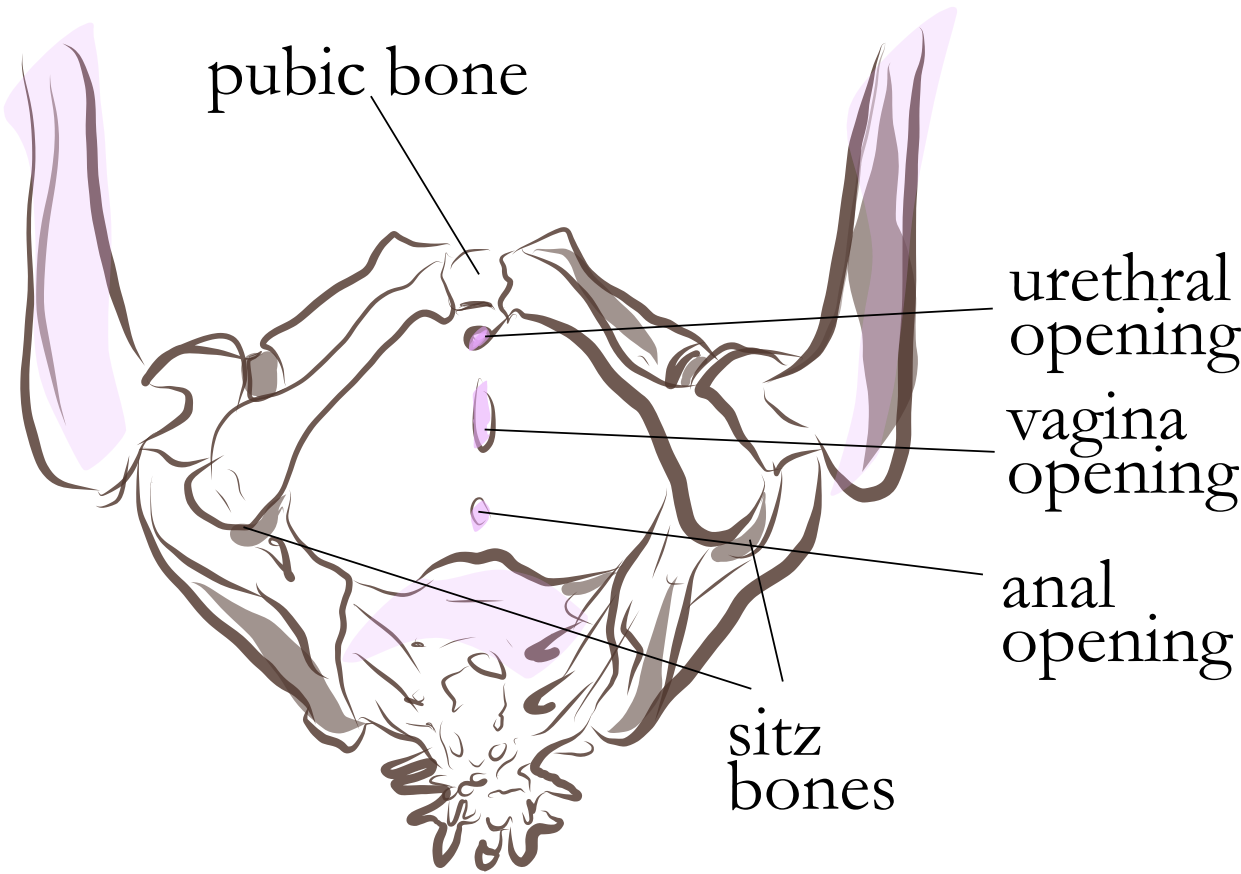
FEMALE PELVIC HEALTH



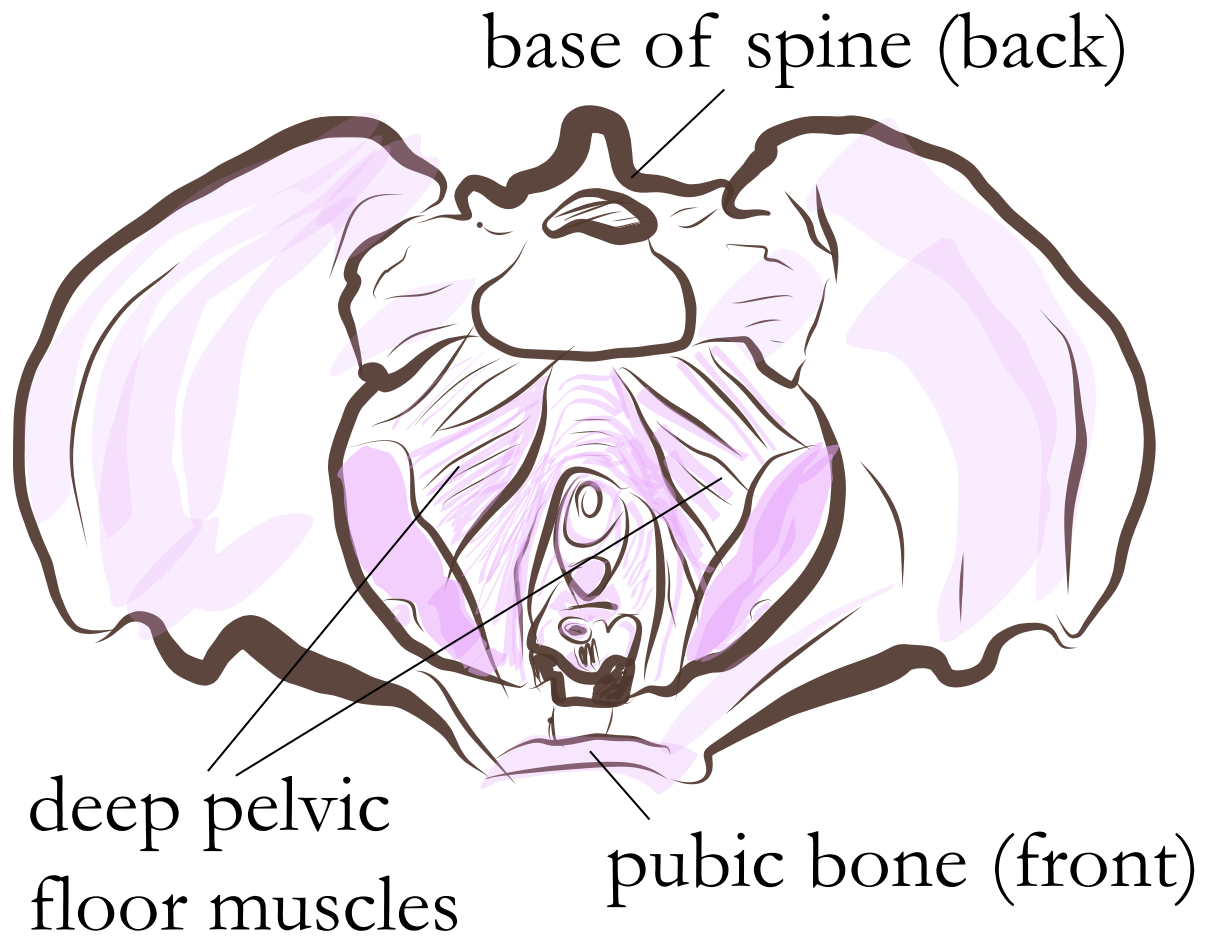
PELVIC ANATOMY



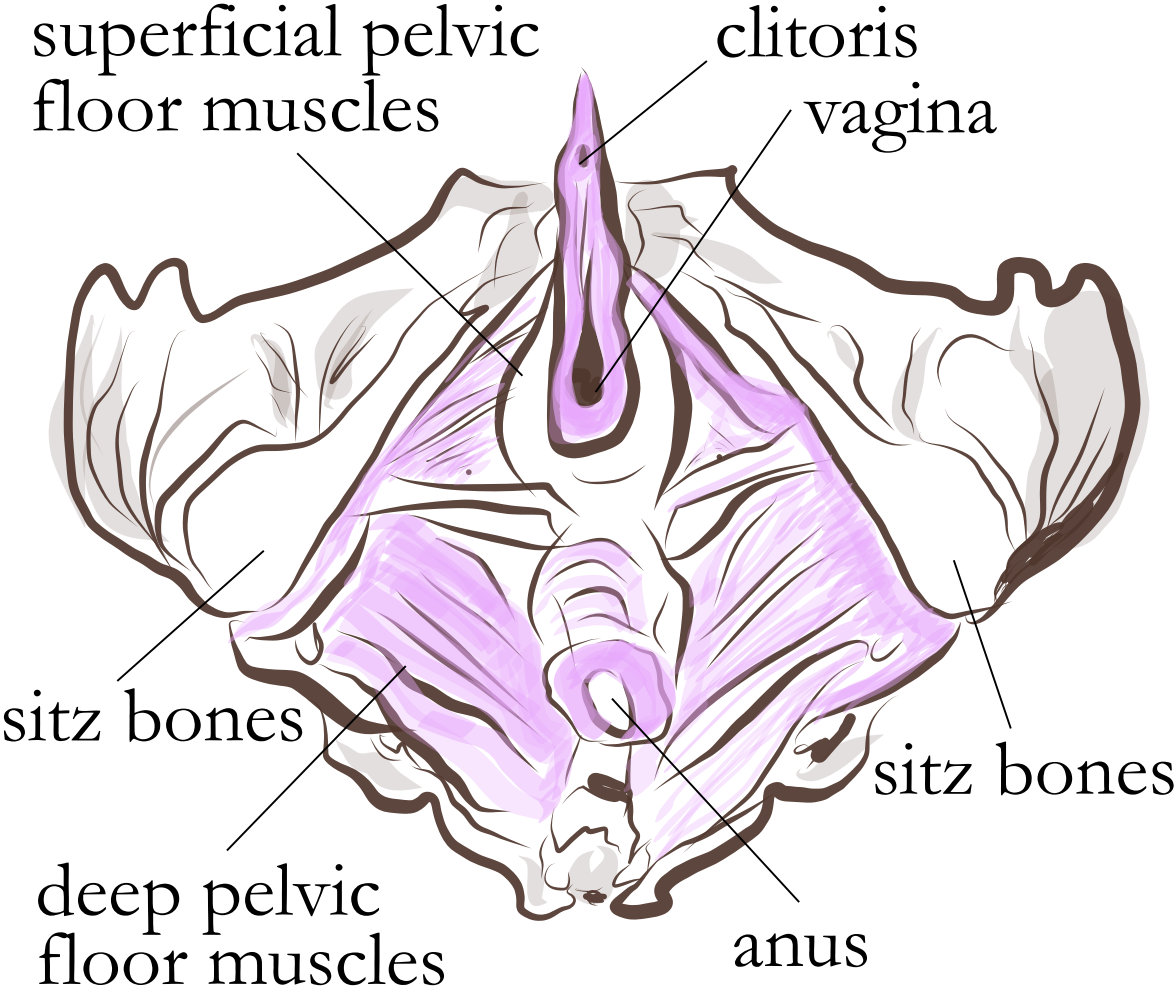
PELVIC ANATOMY



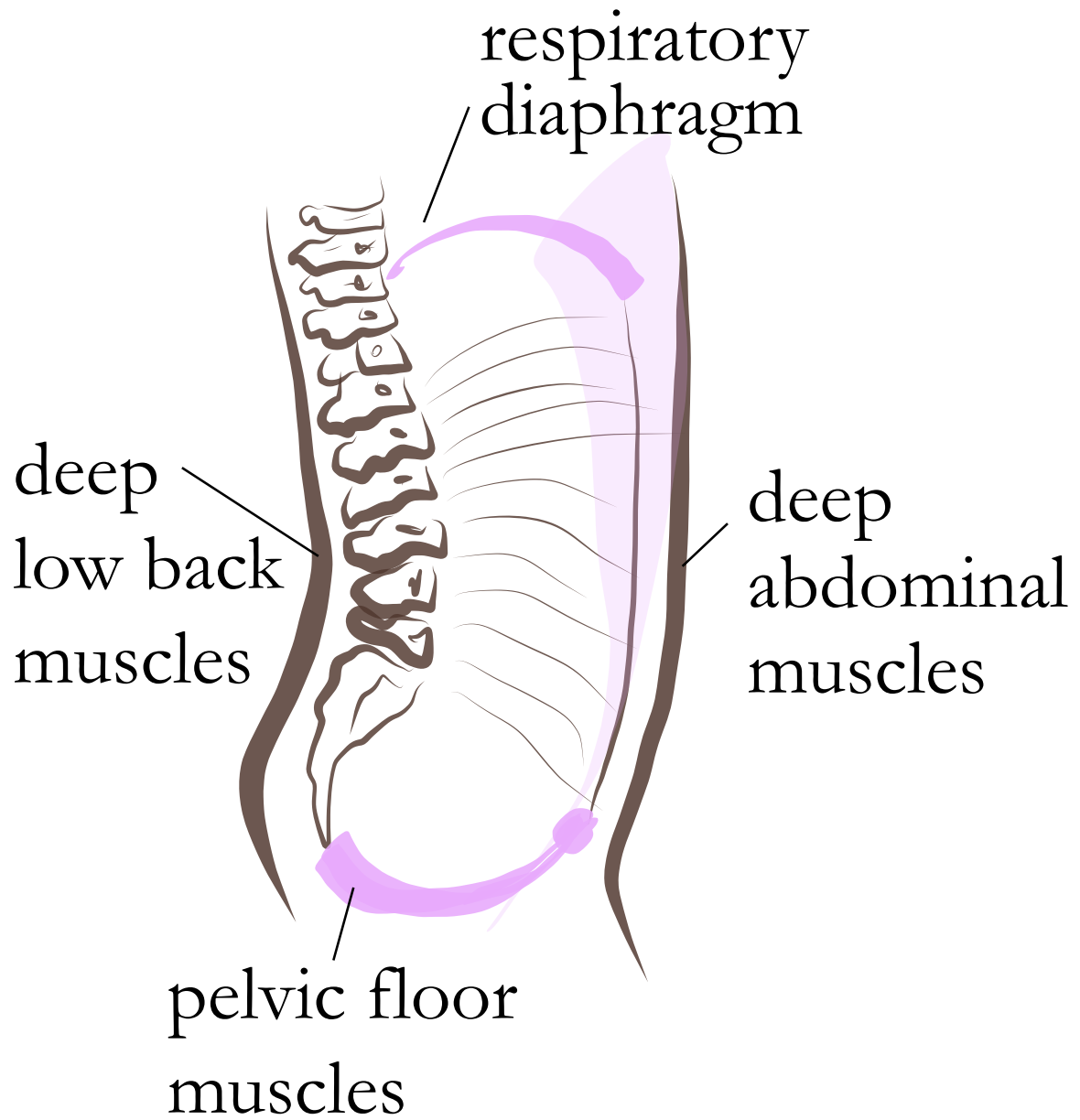
THE PELVIC FLOOR VIEWED FROM ABOVE



THE PELVIC FLOOR VIEWED FROM BELOW

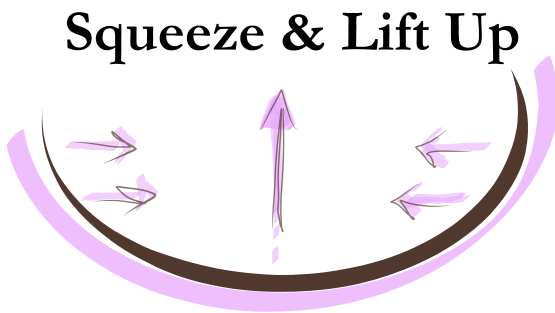


THE PRESSURE SYSTEM



A PELVIC FLOOR MUSCLE CONTRACTION

Occurs in two stages:



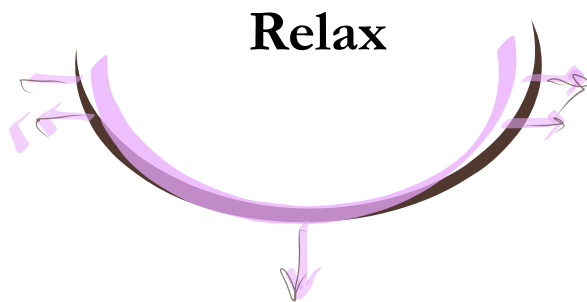
1) Squeeze and Lift:

From rest

Up and In

Exhale

"Squeeze your muscles as if holding back urine or gas"



2) Lengthen and Relax:

From rest

Down and Out

Inhale

"Allow your muscles to relax as if you are going to void. Do not hold your breath or bear down."

THE PELVIC FLOOR MUSCLES AND BREATHING

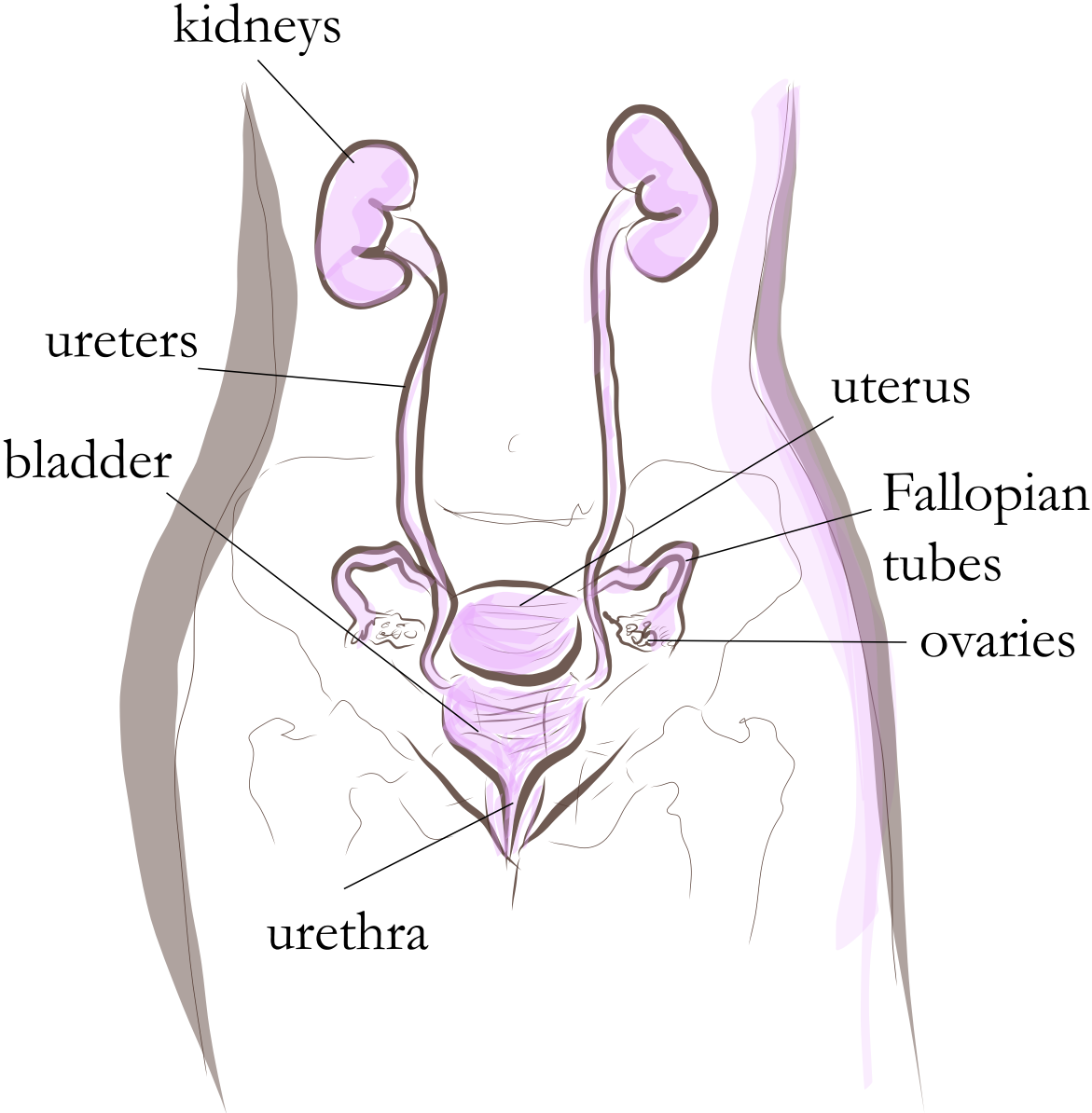


Inhale.
Pelvic
floor
muscles
lengthen
down
and out.

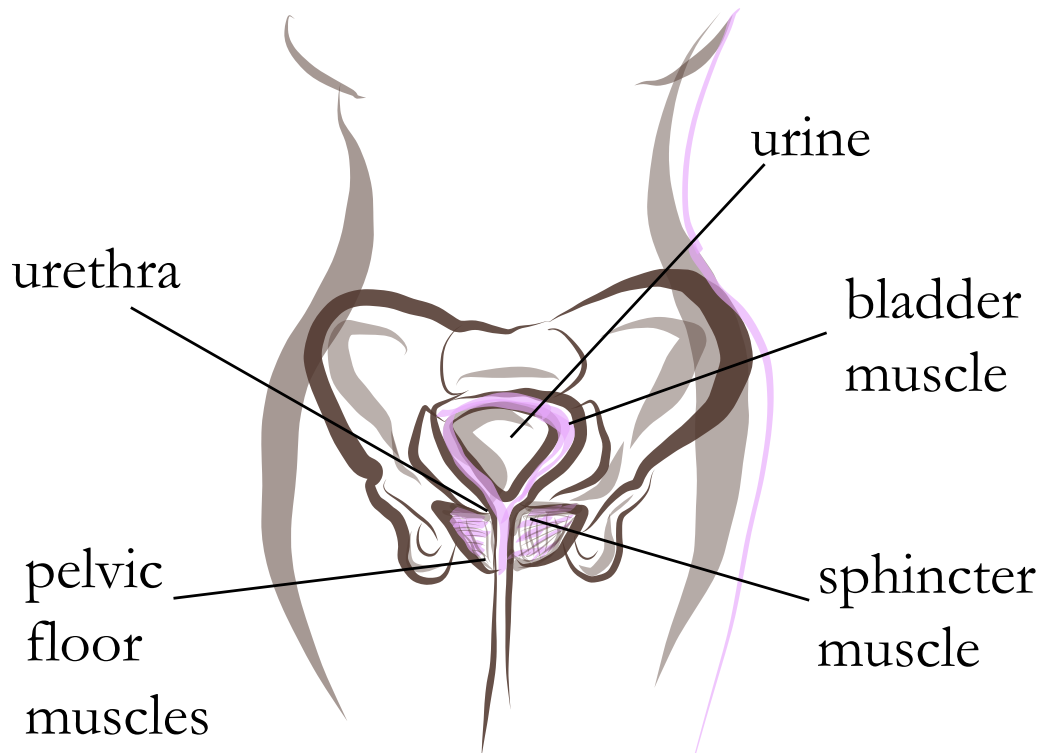


Exhale.
Pelvic
floor
muscles
lift up
and in.

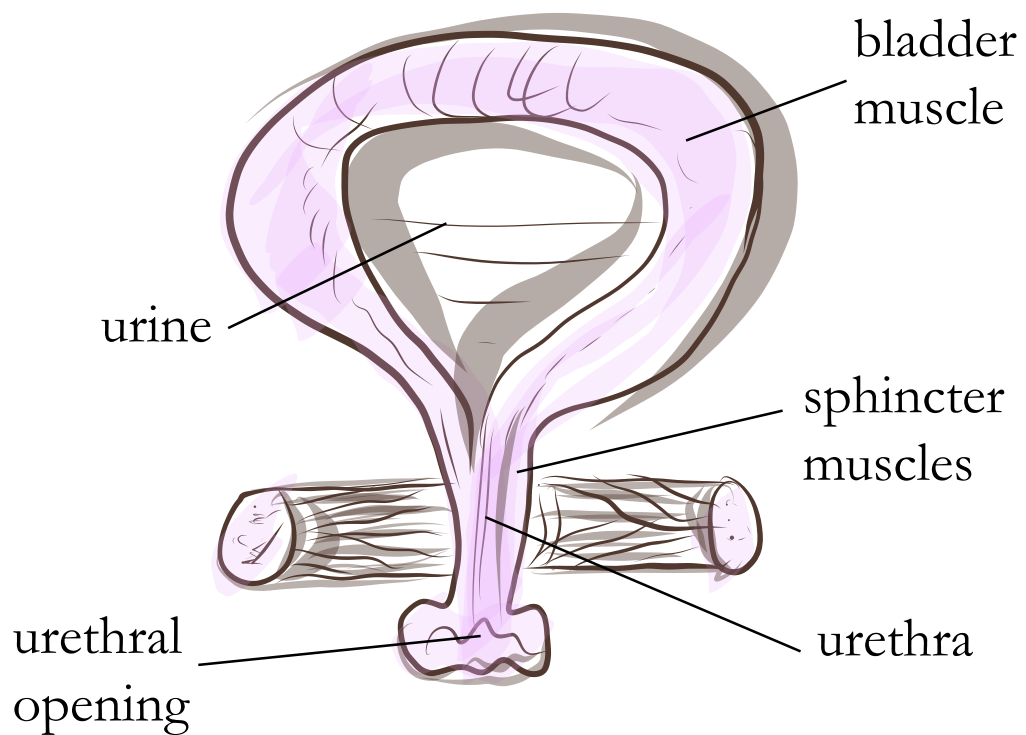
THE URINARY SYSTEM



BLADDER CONTROL SYSTEM



BLADDER AND SPHINCTER SYSTEM

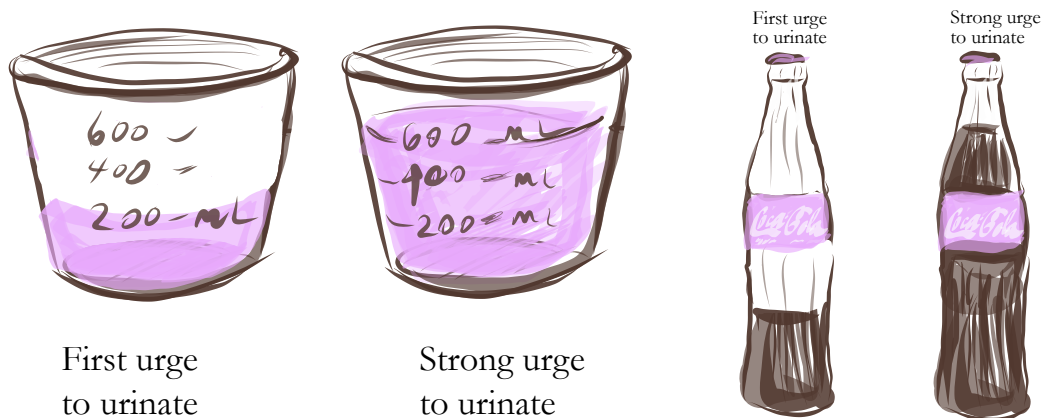


What is normal bladder function?^{1,10}

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.



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.

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.

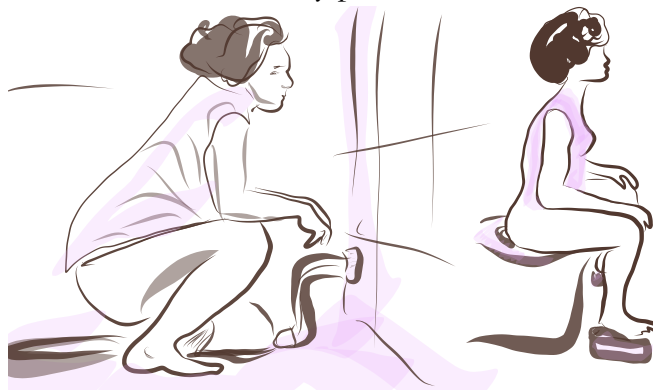
Healthy adults should be able to sleep for 6-8 hours, waking 0-2 times to urinate during the night.^{11,14}

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

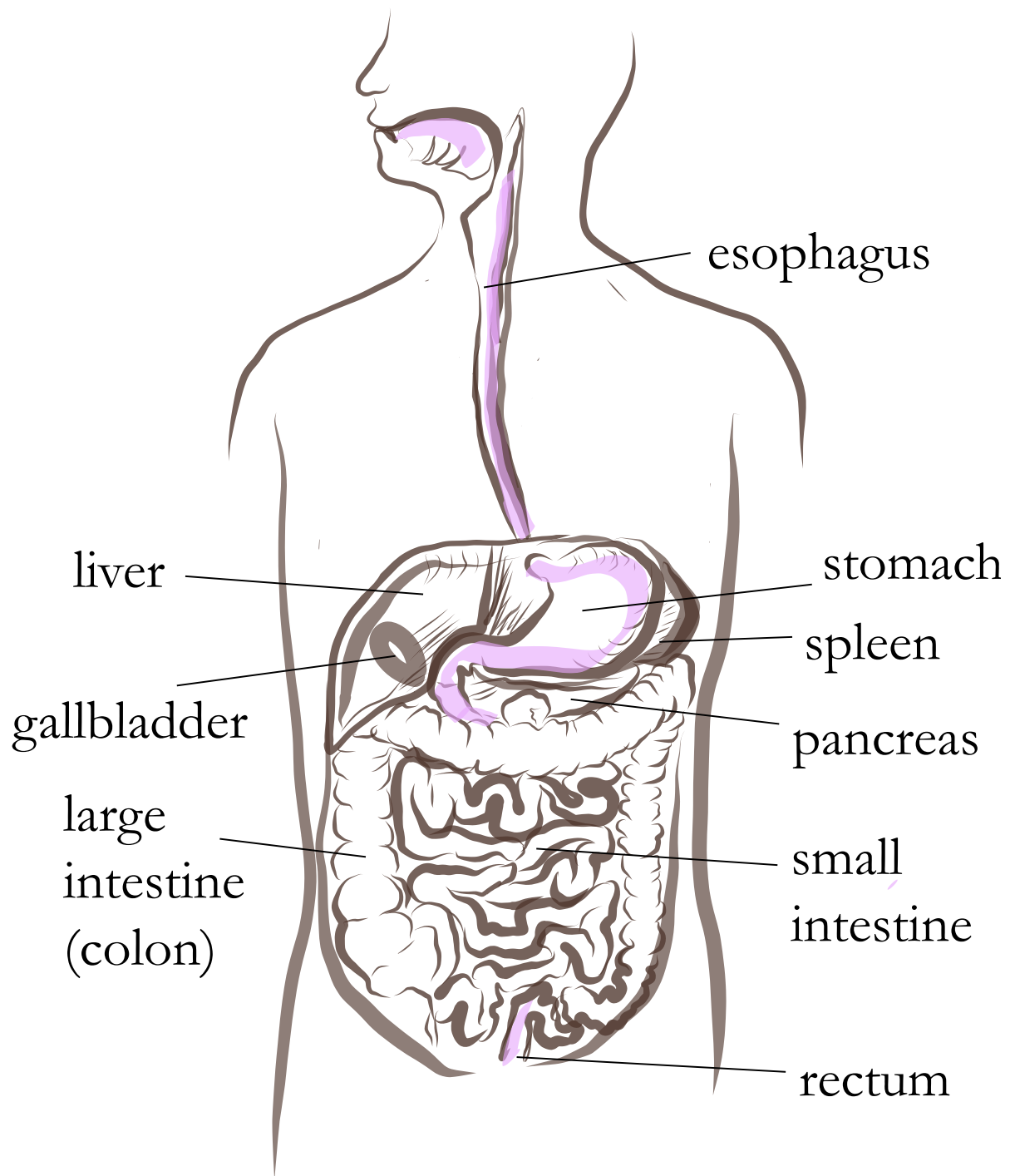
When urinating, always squat fully when using a latrine or sit on the seat when using a western toilet. Do not hover above the toilet. This makes it difficult for the pelvic floor muscles to relax and may prevent the bladder from emptying completely.¹⁵



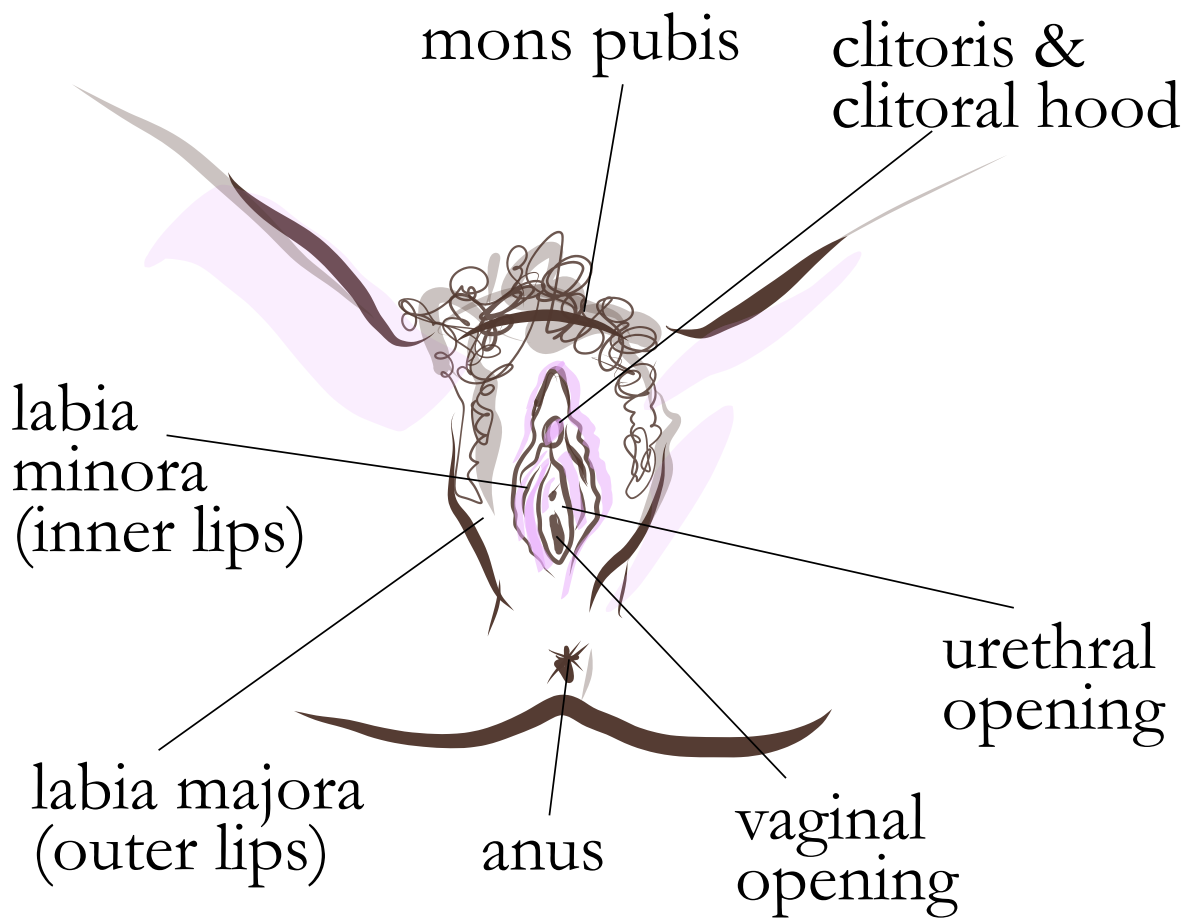
Avoid going to the toilet ‘just-in-case,’ or when you really don’t need to urinate. This will decrease your bladder’s capacity to store a normal amount of urine. If you are having the urge to urinate several times in one hour, you may try a bladder and fluid schedule to increase the amount of time you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

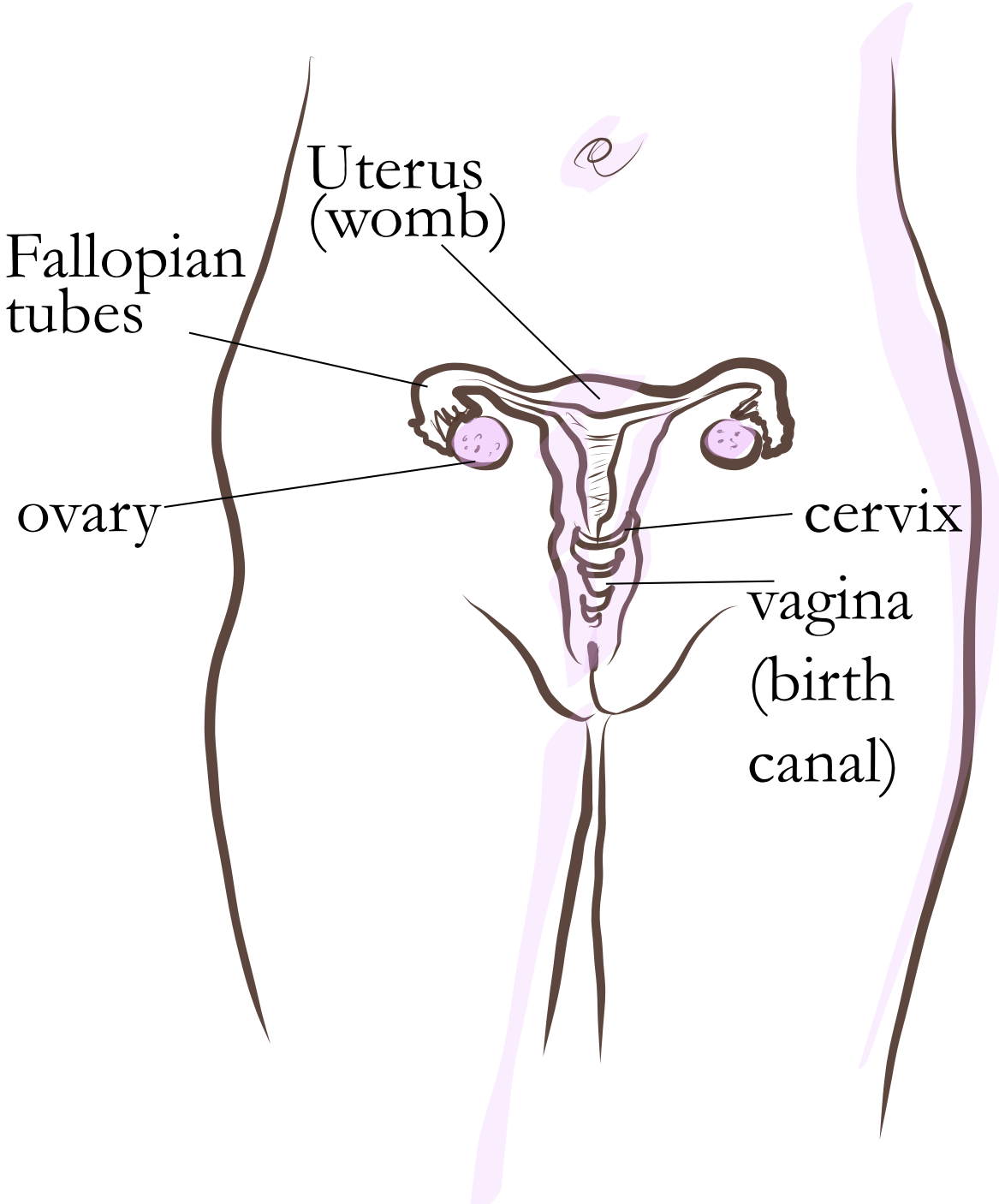
THE DIGESTIVE SYSTEM



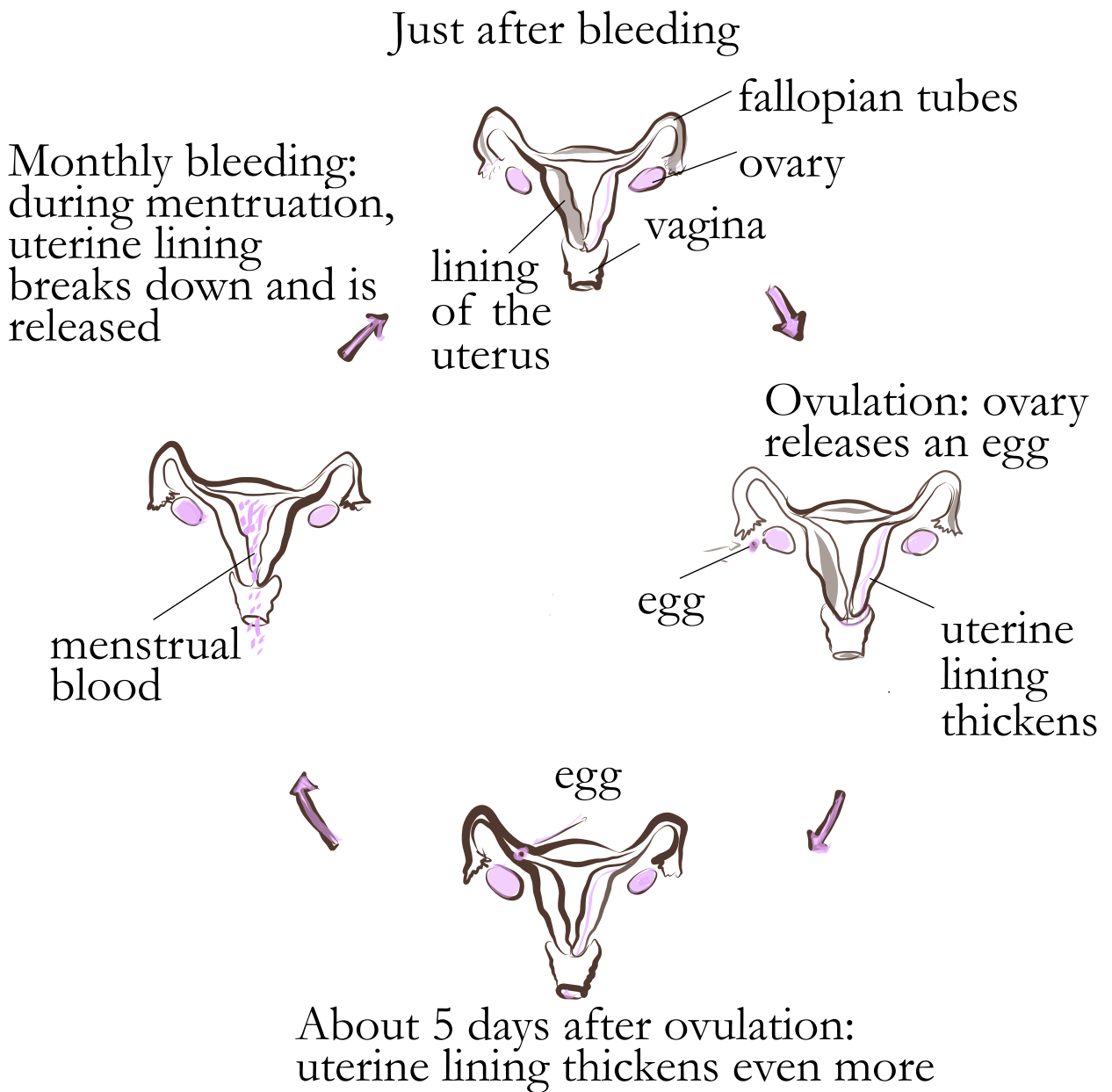
THE OUTSIDE (EXTERNAL) FEMALE GENITALIA



FEMALE REPRODUCTIVE ANATOMY

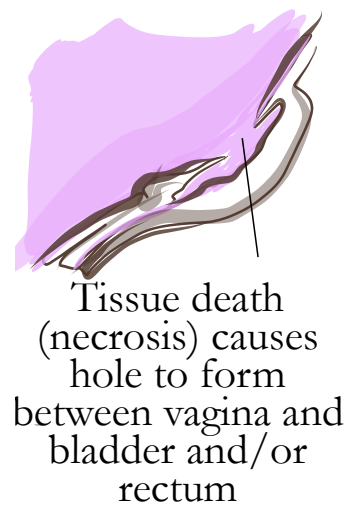
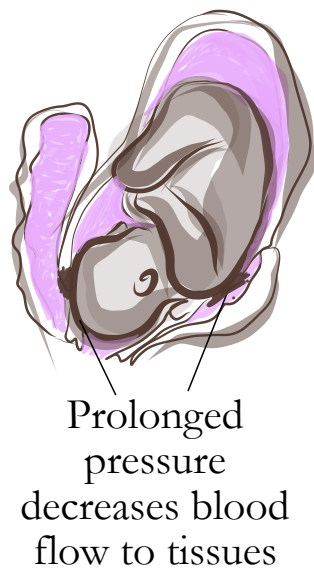
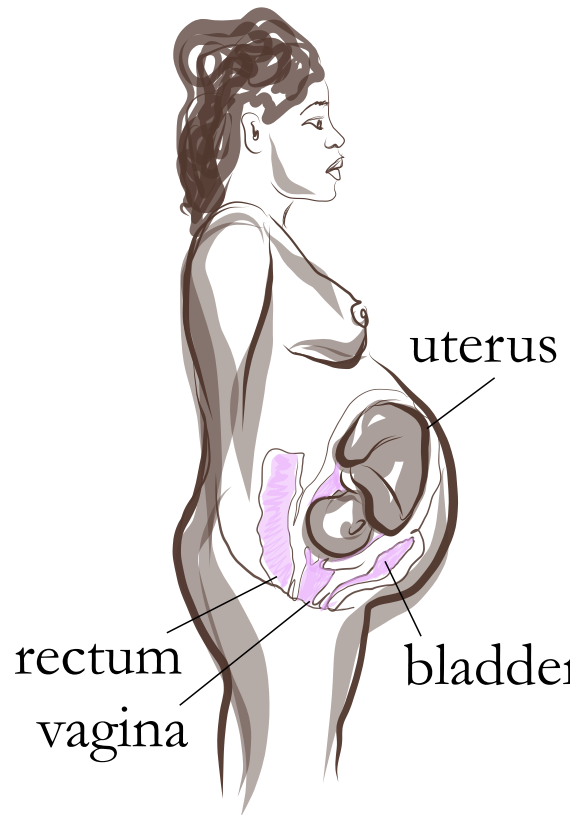


THE MENSTRUAL CYCLE

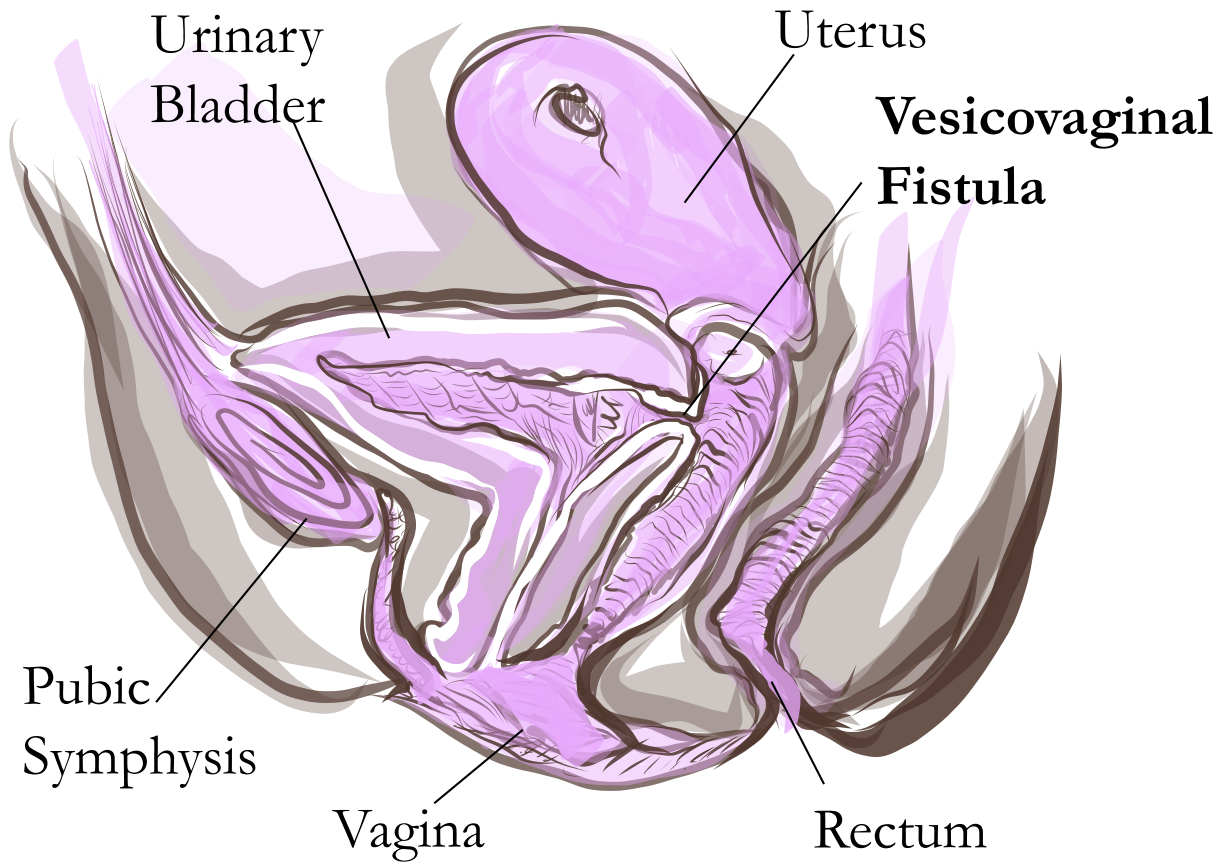


TYPES OF PELVIC FISTULA AND PELVIC ORGAN PROLAPSE

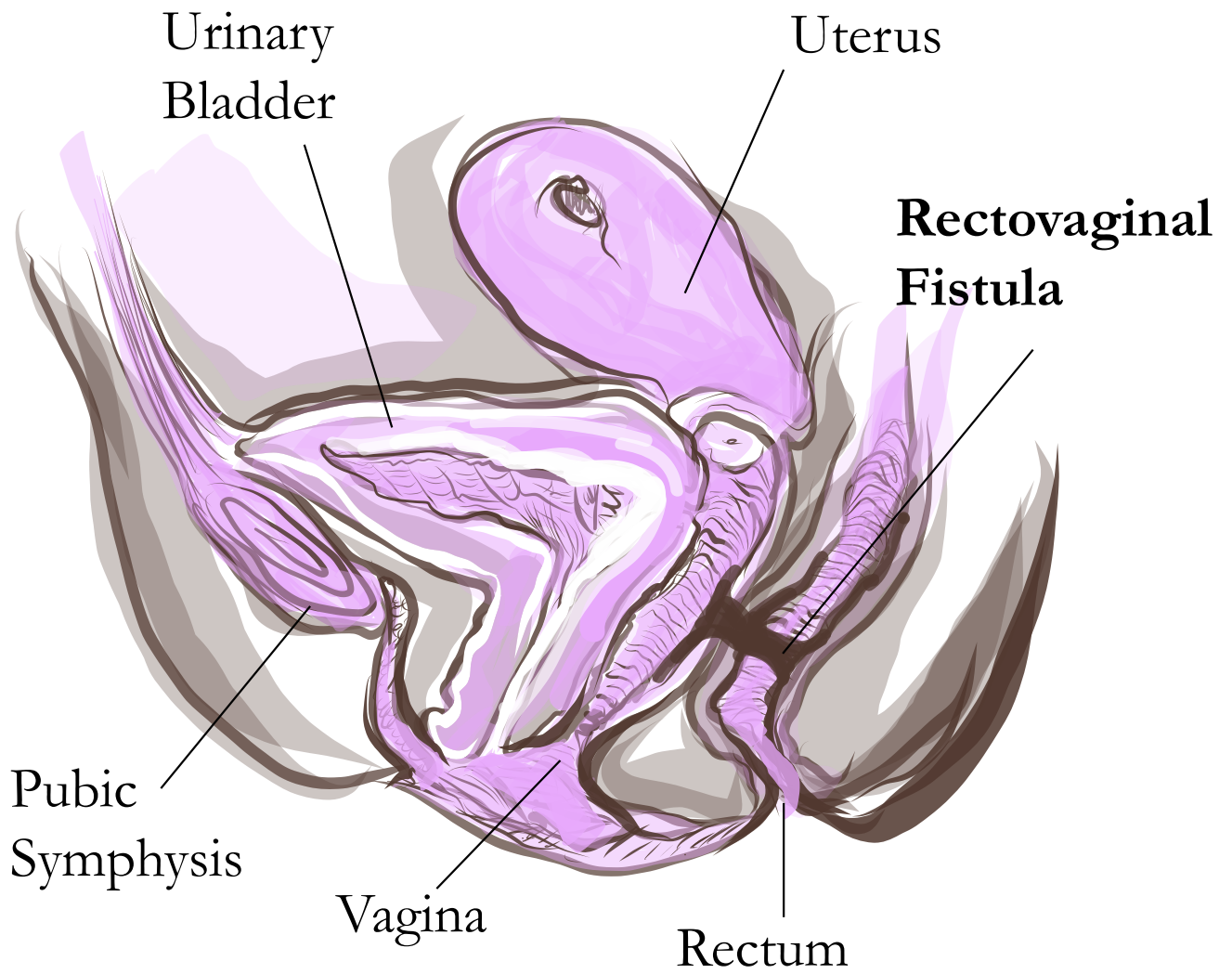
OBSTETRIC FISTULA



VESICOVAGINAL FISTULA

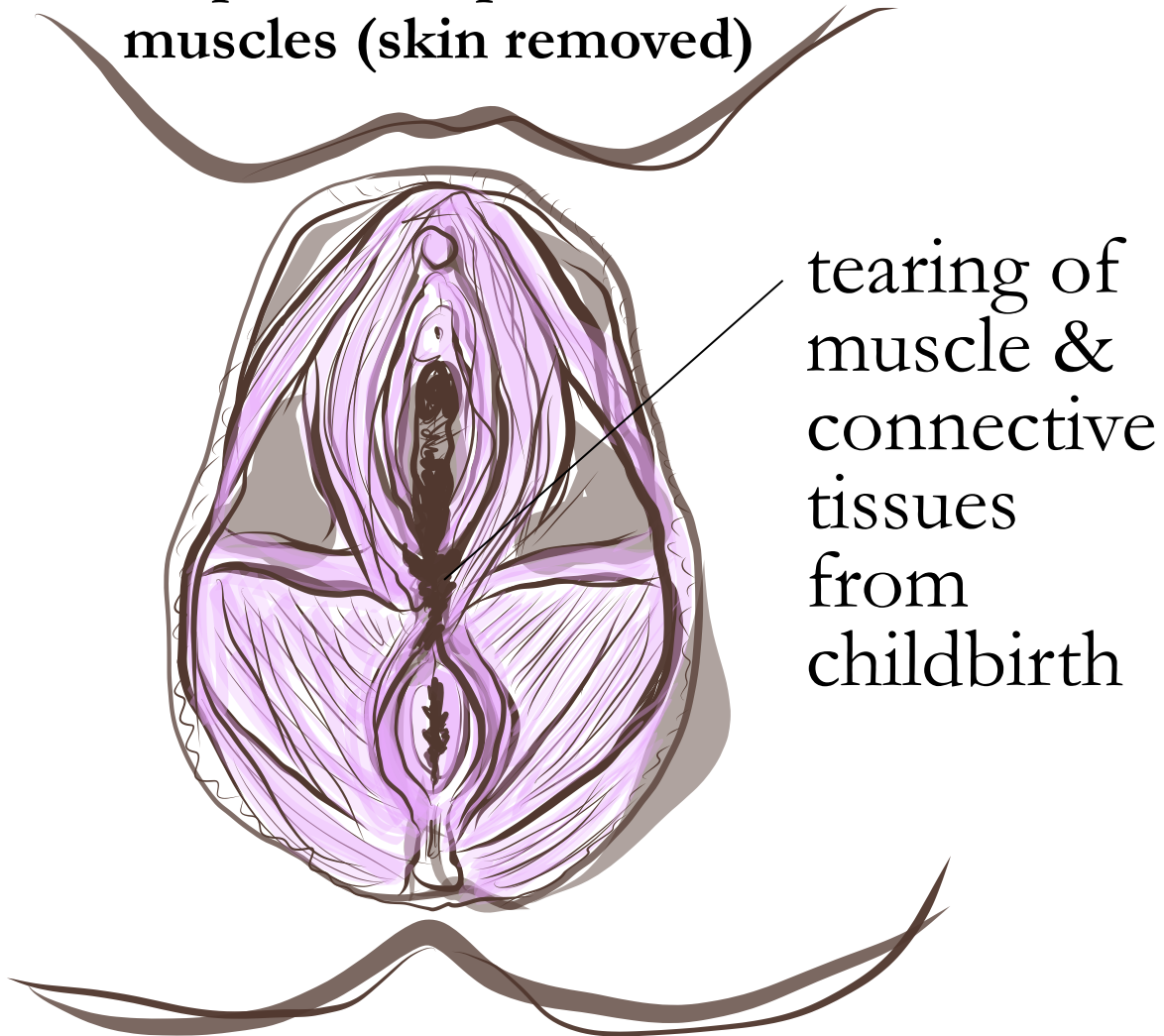


RECTOVAGINAL FISTULA

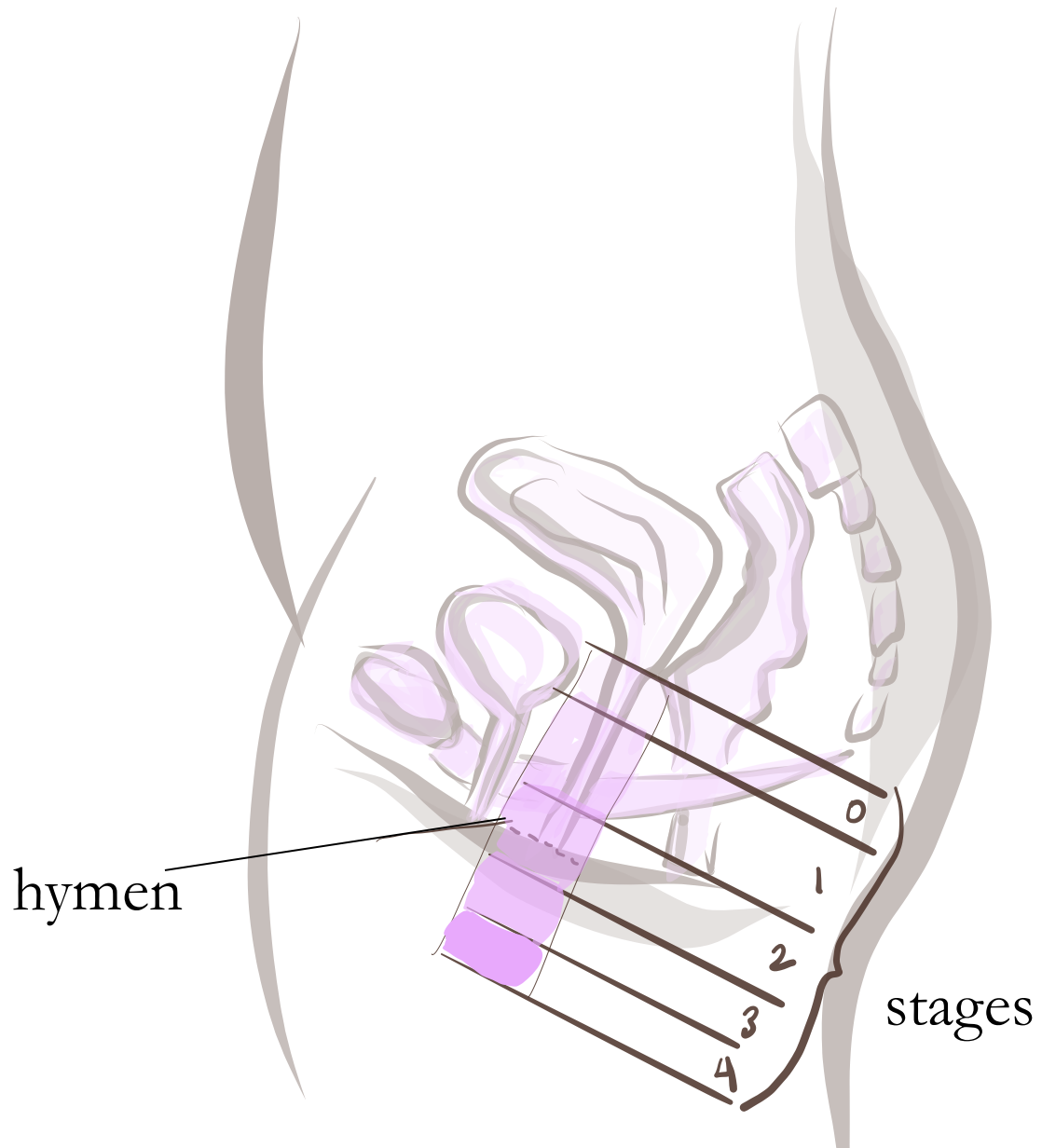


PERINEAL TEARS DURING CHILDBIRTH

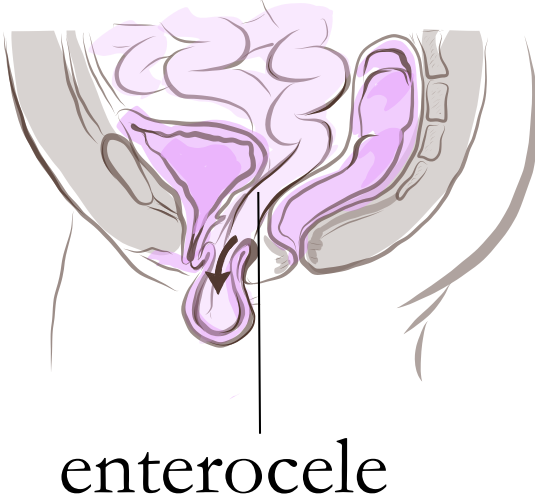
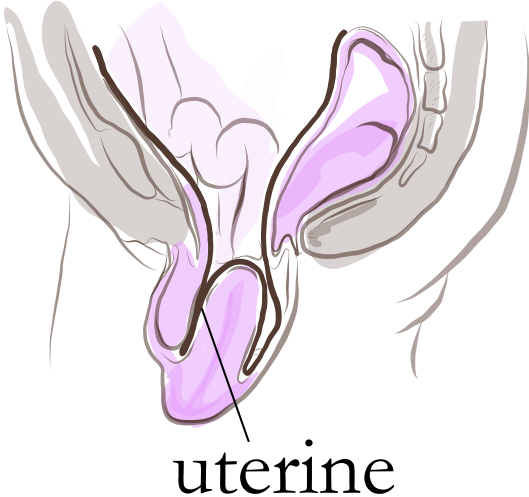
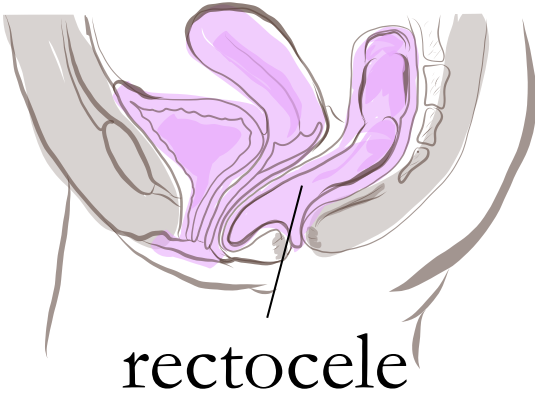
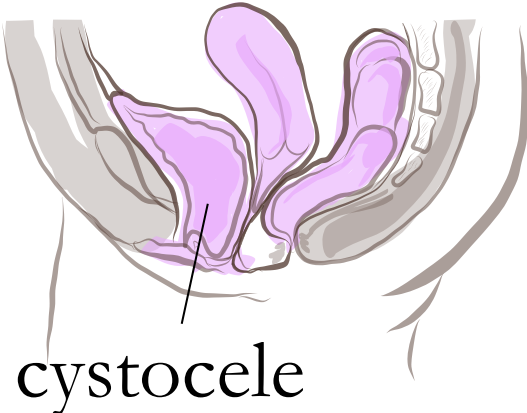
Deep view of pelvic floor
muscles (skin removed)



STAGES OF PELVIC ORGAN PROLAPSE

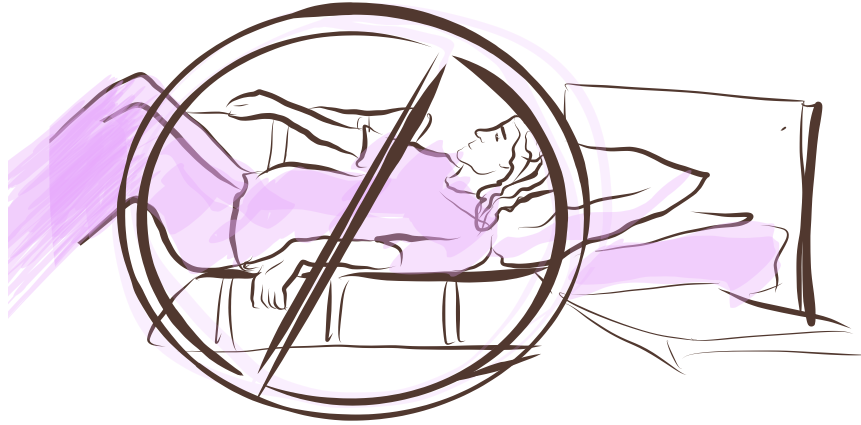


TYPES OF PELVIC ORGAN PROLAPSE

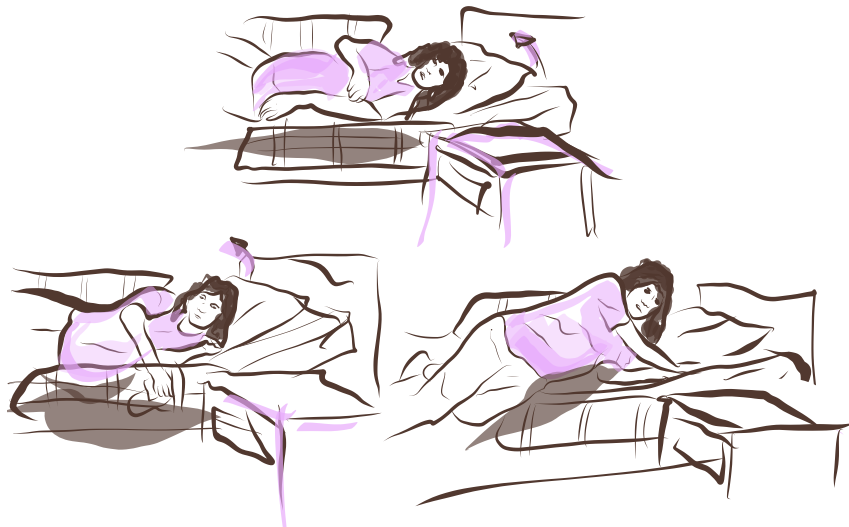


BODY MECHANICS AND FUNCTIONAL MOBILITY

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.

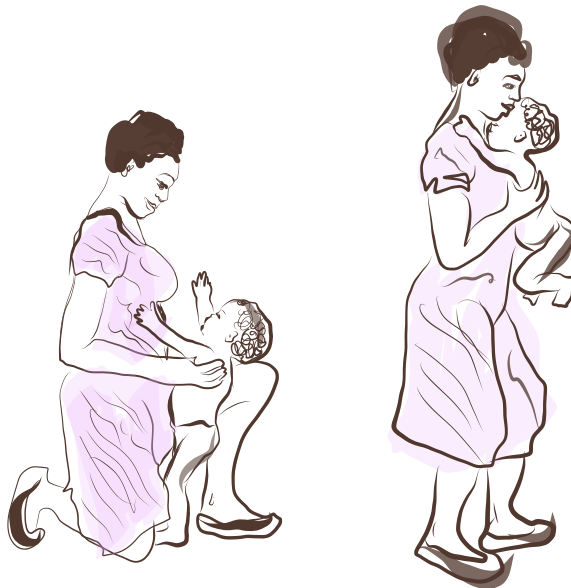


LIFTING

- 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.



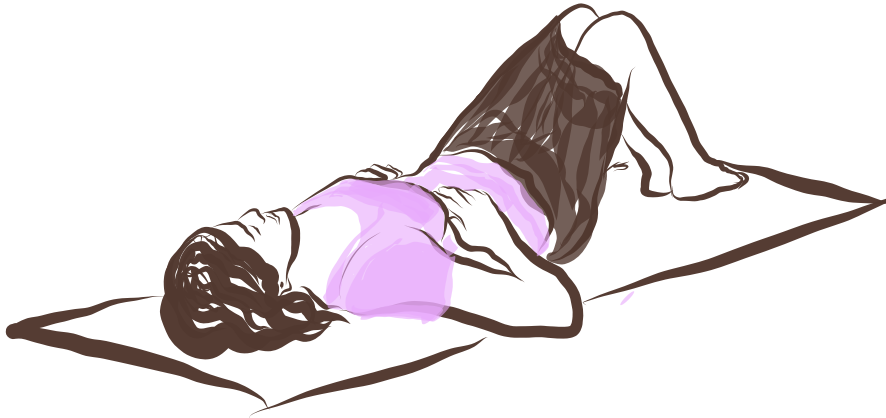
- DO stand with your feet hip distance or a little wider apart. This improves strength and stability and decreases strain on your back and pelvic floor.



EXERCISES FOR STRENGTH, FLEXIBILITY AND PELVIC HEALTH

BREATHING EXERCISE

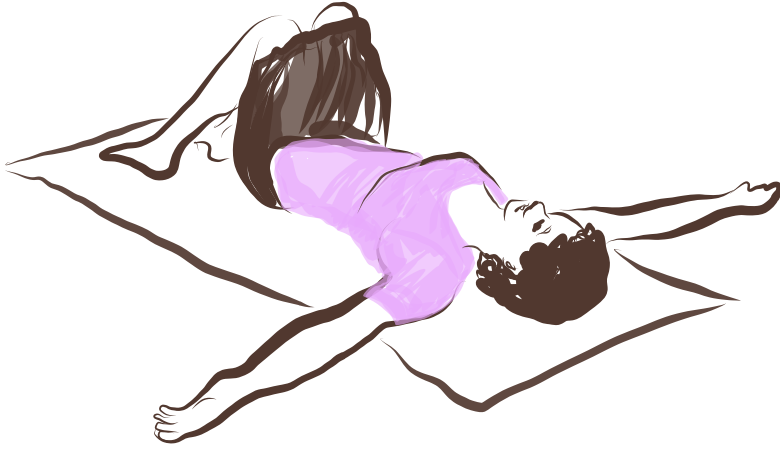
Practice 10 breaths.



- 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

TRUNK ROTATION

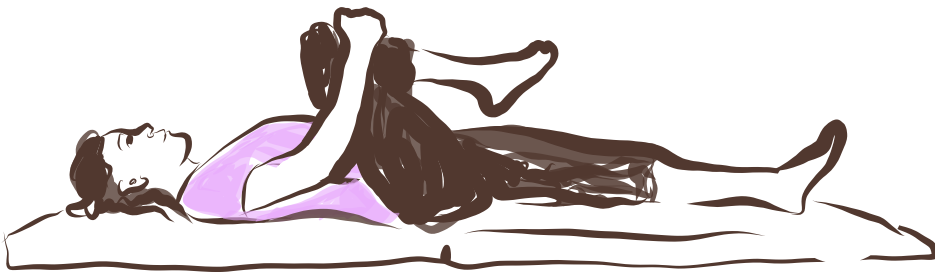
Hold 10 seconds. Repeat 10 times on each side.



- 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.

KNEE TO CHEST STRETCH

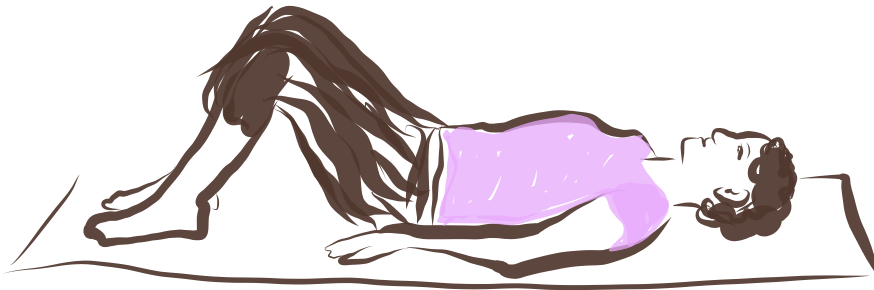
Hold 30 seconds. Repeat 3 times on each side.



- 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 your back relaxed and your opposite leg flat on the floor.

PELVIC FLOOR STRETCH

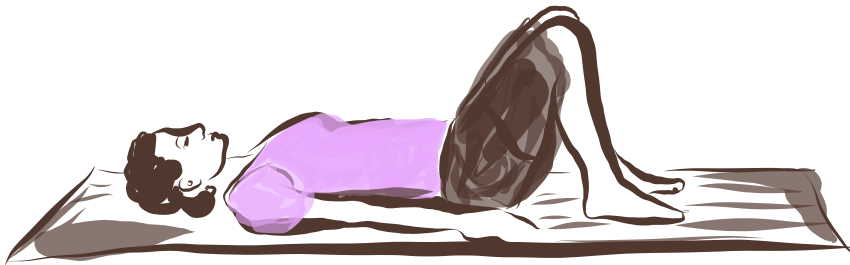
Hold 30-60 seconds. Repeat 2 times.



- 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.

BRIDGE

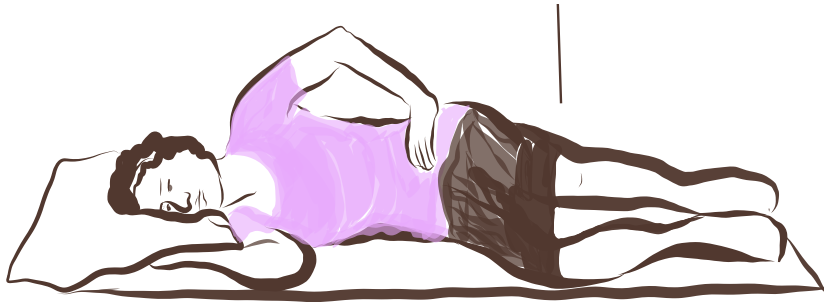
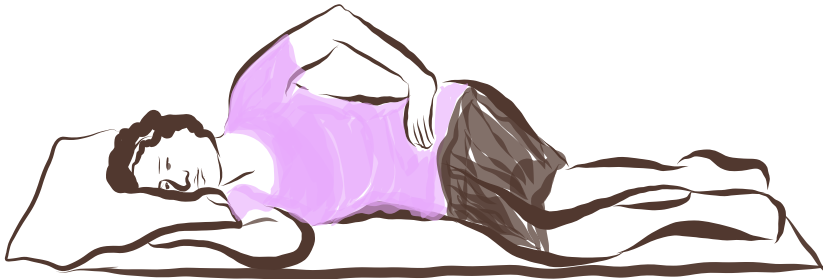
Repeat 10-20 times.



- 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.

SIDELYING HIP EXTERNAL ROTATION

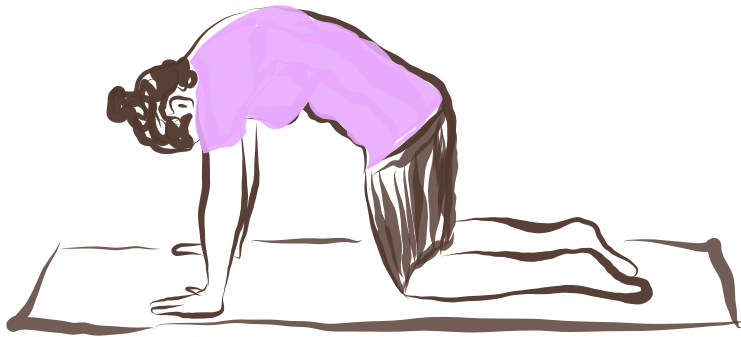
Repeat 10-20 times on each side.



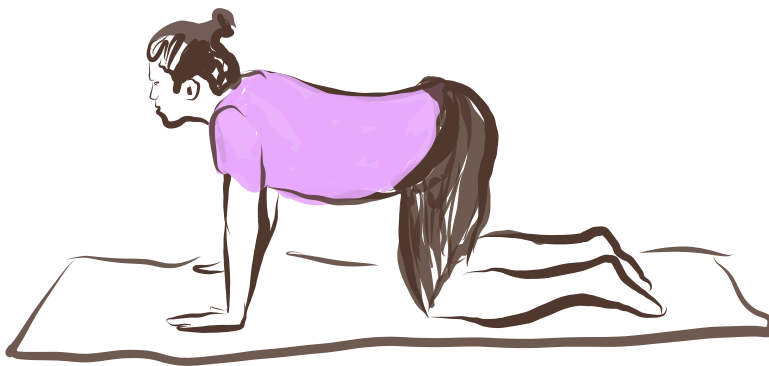
- Lie on your side with knees bent and your hips and shoulders stacked.
- Raise your top knee away from the bottom one, then slowly return to the starting position.
- Do not roll your hips forward or backward during the exercise.

CAT-COW

Repeat 10 times.



exhale

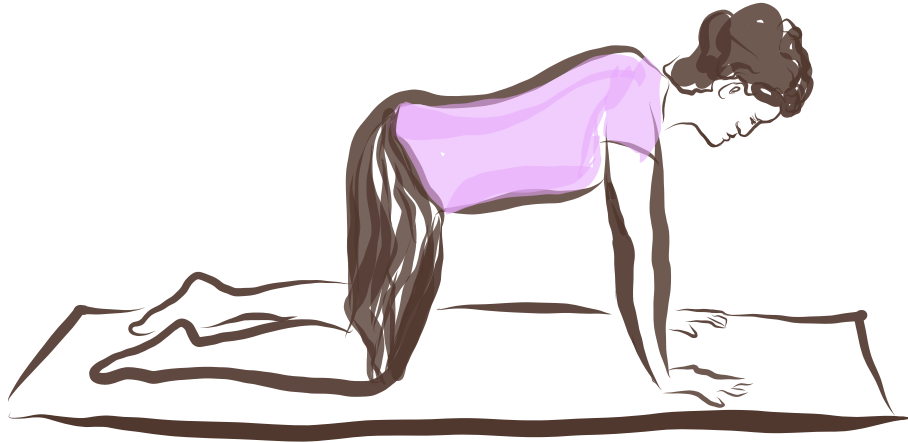


inhale

- 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.

CHILD'S POSE

Hold 30-60 seconds. Repeat 2 times.



- 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.

HALF KNEEL HIP FLEXOR STRETCH

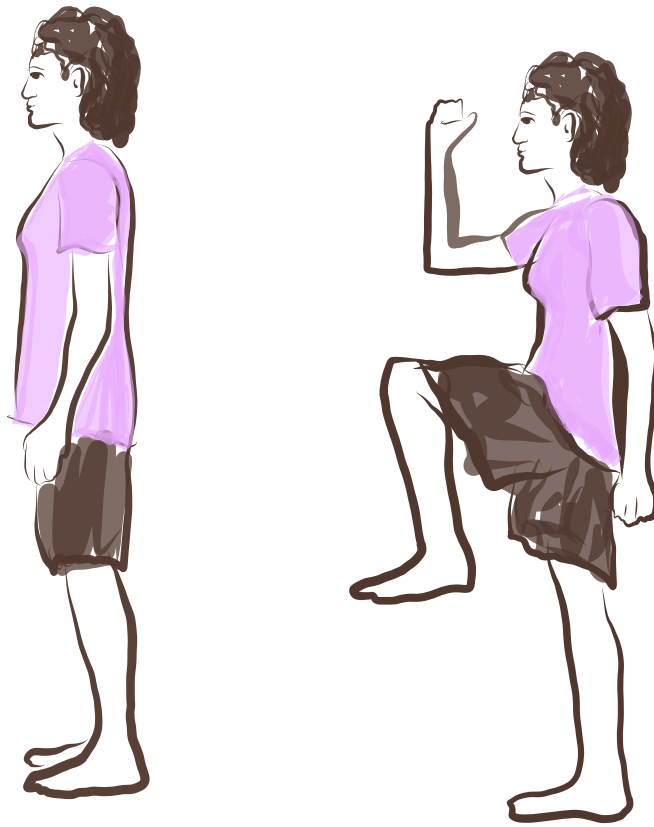
Hold 30 seconds. Repeat 3 times on each side.



- 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.

STANDING MARCH

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



- 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.

