

## RECOVERY AFTER CHILDBIRTH

Recovery from pregnancy and childbirth varies from person to person. Gradually returning to your normal exercise routines is important for your general well-being. Your body's recovery will always take its time, but exercise supports recovery, invigorates and helps you cope with living with a baby.

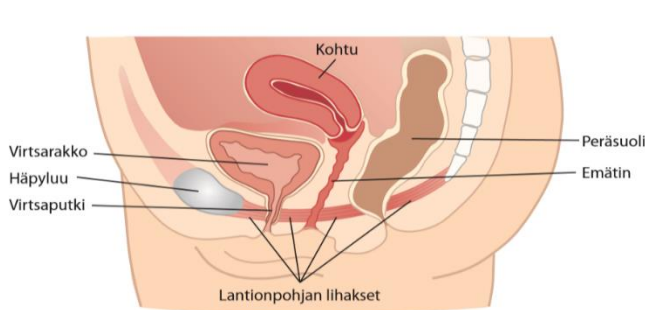
You can start exercising after childbirth immediately when it feels good, for example by taking the baby out in a pram. At first, you should avoid forms of exercise with intense jumps and quick changes of direction. Once your pelvic floor muscles have recovered and core support has returned and you have no incontinence issues, you can gradually move to the most straining forms of exercise.

### Pelvic floor

The pelvic floor muscles are voluntary muscles. Their main function is to support the bladder, vagina, rectum and lower back together with the deep back and abdominal muscles and the diaphragm. The pelvic floor muscles activate in all functions that increase pressure in the abdomen. Well-functioning pelvic floor muscles can help prevent incontinence and pelvic floor prolapse.

Light pelvic floor identification exercises should be started within 24 hours of childbirth. Choose the least painful position for this. The position can be lying on your side or back, for example.

Perineal pain and swelling may make it difficult to feel the contraction of the pelvic floor muscles. It is important to look for the 'lost' contraction in different positions. Starting pelvic floor muscle exercises before childbirth will speed up the recovery of the muscles and support rehabilitation after childbirth. After the 2–3-month intensive training (approximately 5 days/week), the sustaining training should continue 2–3 times per week. You should try to do away with the more frequent toilet visits after childbirth. The normal



interval is approximately 3 hours with no nightly visits.

Figure 1. Pelvic floor muscles. The figure shows a cross-section of a female pelvis. The fibres of the pelvic floor muscles link into a connected support structure surrounding the urethral, vaginal and anal openings.

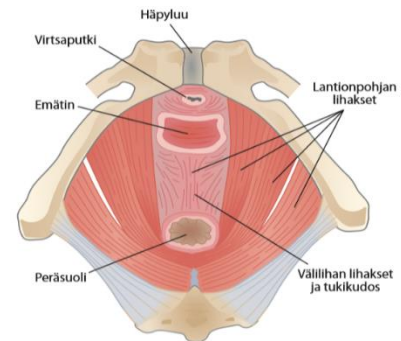


Figure 2. Pelvic floor muscles. The figure shows a cross-section at the level of the pelvic floor. The fibres of the pelvic floor muscles link into a connected support structure surrounding the urethral, vaginal and anal openings.

(Current Care Guidelines)

### Identifying your pelvic floor muscles (helps to find muscle activity)

Start the training by learning to identify a pelvic floor contraction. Try to identify your pelvic floor muscles in different positions, lying on your back or side, sitting or standing up, for example. Contract the anus, vagina and urethra lightly for two seconds as if you were holding in gas and urine. Do the exercise lightly while trying to find muscle activity in your pelvic floor. With the pelvic floor functions, it is important to focus on relaxing the pelvic floor muscles in addition to activation. Relax the muscles before the next tension.

Breathing in makes it easier to relax your pelvic floor as the diaphragm contracts and moves downward. When you breathe out, the diaphragm moves upward and directs the activation of the pelvic floor. Perform the pelvic floor identification exercises lightly and several times per day. Increase the amount of contractions and repetitions according to your feelings.



#### Testing muscle strength (heading 3)

Once the perineal area has completely recovered after childbirth, you can test your pelvic floor muscle strength with clean fingers through the vagina. Insert two fingers approximately 4 cm deep into the vagina. When you contract your pelvic floor muscles, you can feel the muscles tightening around your fingers and a slight

upward suction.

Another way to test the function of your pelvic floor muscles is to stop your urine flow when going to the toilet. If you can do this, you can control your pelvic floor muscles. Please note that this is only a test and is not suitable as an exercise.

You can begin the strengthening exercises once you can do the identification exercises. Make it a habit for yourself to do the pelvic floor muscle exercises. The exercises are recommended to be performed while sitting, standing, walking, lifting and alongside other daily activities. Have 1–2 rest days per week.

## EXAMPLES OF PELVIC FLOOR TRAINING



### **Maximum strength** (needed in strong exertions, e.g. lifting)

Before lifting, upon exhalation, first contract your pelvic floor muscles strongly (upward suction) and stand up at the same time. Keep contracting and count to five while breathing normally. Stay relaxed while counting to ten. Repeat the exercise 5–10 times.



### **Explosive strength**, i.e. anticipatory contraction (needed in sudden exertions, such as sneezing)

Train the anticipatory contraction of your pelvic floor while coughing or blowing. Upon exhalation, first contract your muscles quickly and as strongly as possible and cough or blow at the same time. Relax between contractions for a few seconds. Repeat the exercise 10 times.

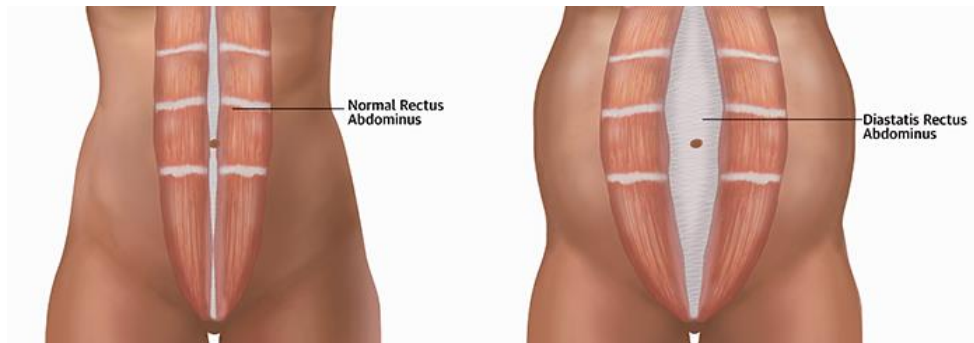


### **Endurance strength** (needed in daily mobility)

Contract your pelvic floor muscles with moderate strength while walking, climbing stairs and engaging in physical exercise. Hold the contraction for at least 10 seconds and relax for 20 seconds. Breathe normally. Hold the contraction longer as the training progresses. Repeat the exercise 5–10 times.

## Abdominal muscles

During pregnancy, the connective tissue, linea alba, between the rectus abdominis muscles stretches and the muscles separate. The recovery of the separation is heaviest during the first two months after childbirth. Some spontaneous recovery takes place for the first year but it slows down after six months.

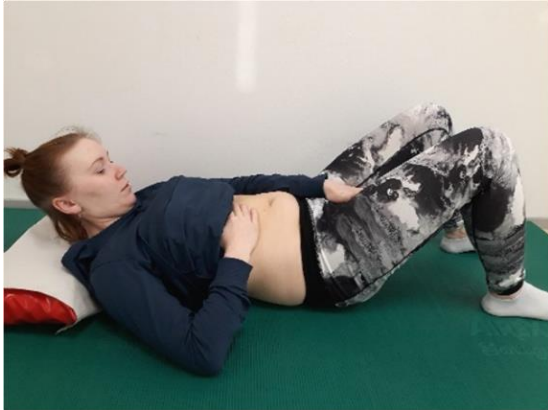


<https://www.delmarbirthcenter.com/diastasis-recti-in-the-postpartum-and-exercises-to-restore/>

You can test the recovery of the linea alba by lying down on your back with your legs bent and soles on the floor.



Test: lift your head and shoulder blades off the floor and feel the gap between your rectus abdominis muscles with your fingers all the way from your pubic bone to the bottom of your sternum. If the gap is no more than two fingers wide and you feel firmness under your fingers, the gap is probably normal. If the gap is several fingers wide and you feel your fingers dip, this indicates an abdominal separation. Activate your pelvic floor lightly and tighten your navel area. Lift your head and shoulder blades off the floor. Feel if the firmness of the linea alba increases under your fingers with the aforementioned muscle activation.



To make sure your pelvic floor muscles function properly, feel with your hand around the vagina and anus that your pelvic floor does not pop out but that you feel inward suction.

After pregnancy and childbirth, the pelvic floor muscles and abdominal area are too weak for intense abdominal muscle training. You can support recovery by avoiding excessive strain to your rectus abdominis muscles. For example, you should rise up from lying on your back by rolling on your side first for the first months after childbirth.

### Deep transverse abdominal muscle

The deep transverse abdominal muscle encircles the abdomen like a corset. This muscle supports the spine and pelvis together with the pelvic floor, deep back muscles and diaphragm. After childbirth, abdominal muscle training should be started by training your transverse abdominal muscle. Combine these exercises with calm exhalation and the contraction of the pelvic floor muscles (light inward and upward suction). When you feel that your transverse abdominal muscle and pelvic floor muscles function well, you can move to more intense abdominal muscle training.

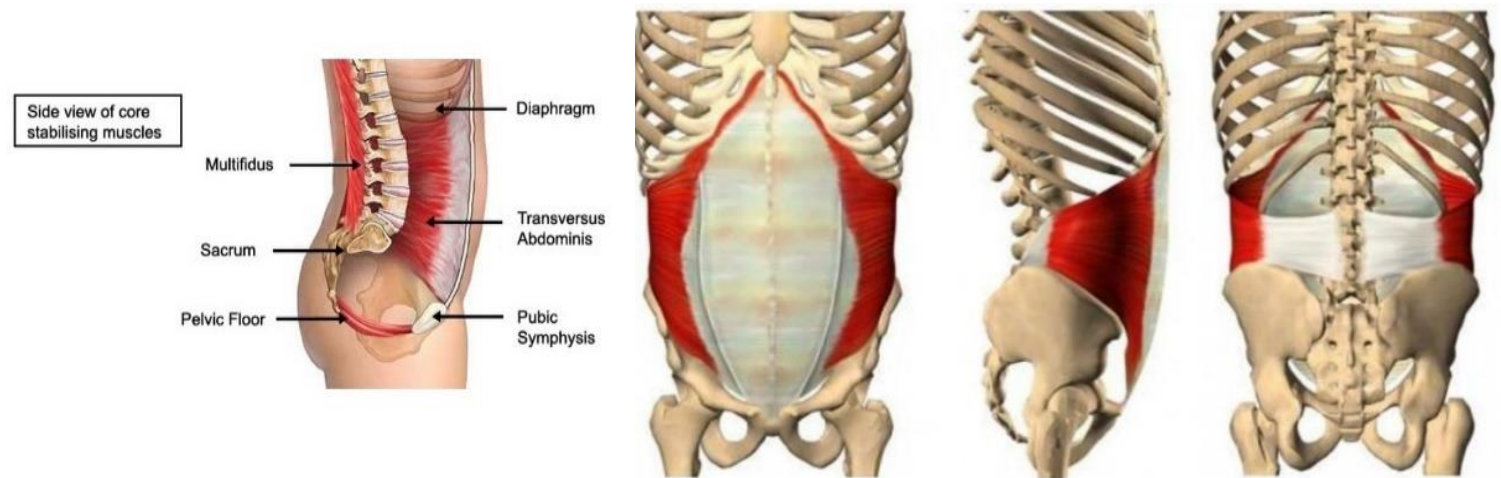
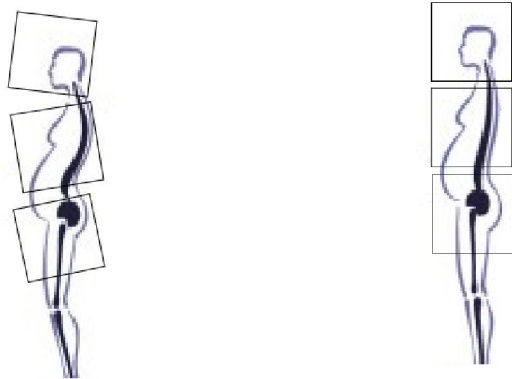


figure: <https://beyond-health.co.uk/womens-health-physiotherapy-part-1/>

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## ELEMENTS OF A GOOD POSTURE

In a good standing posture, your pelvis, chest and head are in centre position. Weight is distributed evenly on the whole sole, so that your knees are not hyperextended. The pelvic floor provides light support and the abdomen is tight, tailbone towards the floor. Shoulders relaxedly back and shoulder blades towards each other. The chest is set over the pelvis. Long neck and the crown of your head towards the ceiling.



The effect of the position of the pelvis on posture (adapted from Myers 2012:232)



Bad posture



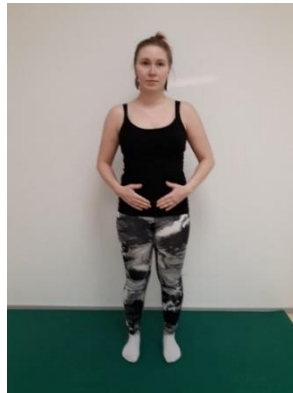
Good posture

Impaired posture subjects you to back pain. Check your natural standing posture in the mirror. If the curve of your lower back is heavily pronounced, try to correct the position by turning your imaginary tail lightly towards the floor. Let your breathing flow freely.

[More information can be found in Finnish on the Selkäkanava website.](#)

The activation of the deep transverse abdominal muscle is trained in different starting positions (e.g. lying on your side or back, sitting, standing). Activate the pelvic floor lightly and ‘tighten’ the lower abdomen, i.e. pull it lightly inwards at the end of the exhalation. Hold the tightness for 5–10 seconds while breathing normally. Repeat 5–10 times.

Your stomach must not protrude from the centre line during the training.



According to currently available information, the closing of the separation is not necessary for restoring the optimal functionality of the abdominal wall. Instead, the main goal of the rehabilitation is to restore a sufficient tension of the linea alba to improve force transmission both between the upper and lower body and the right and left side of the abdominal wall.

## EXAMPLES OF CORE CONTROL EXERCISES SUITABLE FOR ABDOMINAL SEPARATION



### Exercise 1.

Lie on your back with your knees bent. Inhale and start a long and calm exhalation. Activate your pelvic floor and gluteal muscles, lift your pelvis and push your hips straight. During inhalation, keep your pelvis up. Upon exhalation, activate your pelvic floor again and bring your pelvis down. Continue calmly at your own pace.

Do 8–12 repetitions, 1–3 sets.

**Exercise 2.**

Lie on your back with your knees bent. Inhale and start a long and calm exhalation. Activate your pelvic floor and gluteal muscles, tighten your abdomen and lift your pelvis. When your pelvis is up, inhale. Upon exhalation, lift one heel up without tilting your pelvis, and bring the heel back down upon inhalation. Upon your next exhalation, lift your other heel, and bring it back down upon inhalation. Bring your pelvis down with a long exhalation. Continue calmly at your own pace.

Do 8–12 repetitions, 1–3 sets.

**Exercise 3.**

Lie on your side, knees and hips bent. Adjust the position of your pelvis so that your lower waistline gets lighter and lifts up.

Inhale, start a long and calm exhalation and activate your pelvic floor muscles. Lift your top knee and make sure that your pelvis does not twist and the space under your lower waistline stays there. Upon inhalation, bring your knee back down. Do 8–12 repetitions, 1–3 sets on each side calmly at your own pace.

**Exercise 4.**

Get on your hands and knees. Do not let your lumbar region sag. Inhale and start a long and calm exhalation. Activate your pelvic floor and tighten your abdomen lightly. Lift the opposite arm and leg off the floor. Breathe in while maintaining the neutral centre position of your lumbar spine. Upon exhalation, activate your pelvic floor again and bring your limbs back on the floor. Calmly at your own pace, do 8–12 repetitions, 1–3 sets.





**Exercise 5.**

Lie on your back and lift your arms up at the width of your shoulders.

Breathe in and start blowing air out calmly and long. Activate your pelvic floor and reach up with one arm so that the shoulder blade gets off the floor. Bring the arm back upon inhalation. Start a long and calm exhalation, activate your pelvic floor muscles and start reaching your other arm upward. The chest twists but the pelvis stays put. Bring the arm back upon inhalation.

Do 8–12 repetitions on each side, 1–3 sets.

**Exercise 6.**

Place an elastic resistance band on a door handle, for example, and grab the ends with both hands. Stand with a good posture. Inhale and start a long and calm exhalation. Activate your pelvic floor and the deep transverse abdominal muscle, pull the band by taking your elbows back and shoulder blades lightly towards each other. Upon inhalation, bring your arms slowly back forward.

Repeat several times until you are tired. Remember to retain a good posture.



**Exercise 7.**

Sit on a chair with a good posture. Start breathing in holding both feet on the floor, causing your stomach to protrude slightly. Upon exhalation, activate your pelvic floor muscles, tighten your lower abdomen and lift the heel of one foot up while keeping your toes on the floor. Upon inhalation, bring the heel back down and relax your muscles.

Repeat the exercise with alternating feet 8–12 times.



Monitor your progress with a test

Lie on your back and bend your knees. Breathe in through your nose towards your sides and let your stomach protrude. Upon exhalation, activate your pelvic floor and tighten your lower abdomen while lifting your upper body. Your shoulder blades will lightly lift off the floor and your gaze will be directed to your navel (at the same time, you can see if there is a bulge between your rectus abdominis muscles and feel the firmness of the linea alba with your fingers).

Repeat 8–12 times.

- You can use a long cloth around your waist and grab its crossed ends. This helps to bring the rectus abdominis muscles together.
- You can also cross your arms over your stomach. This helps to bring the separated rectus abdominis muscles together at the centre line during the exercise.
- You can also use an elastic resistance band around your waist. There must not be any pressure on the band, but it should rather keep the same tightness or it could even loosen a little when you tighten your abdominal muscles.

## ABDOMINAL SEPARATION REHABILITATION TOOLS

The purpose of various support belts, corsets and wraps is to support the body structures stretched and loosened by pregnancy and childbirth. An external support belt may be a useful tool right after childbirth until optimal motion control has been relearned.

It is important that the support belt is used along with exercise, not instead of it. Once your functional capacity improves with training, use of the support belt should be reduced and relinquished as soon as possible.

## RELAXATION

Relaxing your muscles is as important as activating them. After childbirth, the typically tight structures are the muscles of the pelvic and gluteal areas. Relaxing these muscles is important for starting the rehabilitation of the abdominal wall.



### Exercise 1.

Get on your hands and knees, arms below your shoulders and knees perpendicular below your hips. Maintain a neutral position of the lumbar region. Do not let your elbows hyperextend. Breathe in so that your chest expands. Upon exhalation, activate your pelvic floor and transverse abdominal muscle.



Take your weight calmly back so that your sit bones press on your heels. Let your forehead press on the floor. Relax your shoulders, abdominal muscles and pelvic floor. Breathe calmly towards your sides 4–5 times.

During exhalation, activate your pelvic floor and transverse abdominal muscle and lift yourself back on your hands and knees. Repeat 5 times.

**Exercise 2.** Hip adductor, hamstring and lower back stretch.



Sit on the floor with one leg bent in front of you. You can sit on a small pillow if you want.

a. Lean your side gently towards the straight leg until you feel a stretch in your inner thigh and/or side.

b. Turn your chest towards the straight leg and lean forward with your back straight until you feel a stretch in your hamstring and/or lower back. Hold both stretches lightly for 30 seconds.

**Exercise 3.** Hip flexor stretch



Stand with one foot forward or on one knee. Keep your back straight. Tighten the transverse abdominal muscle and activate the gluteal muscle of the back leg. Bring your pelvis lightly forward, which allows you to feel a stretch in your groin. Hold the stretch for 30 seconds.

## Working positions

Hormonal factors affect the looseness of ligaments in the whole body (the relaxin hormone is secreted as long as you breastfeed). Due to the looser ligaments, your back may become tired and sore.



When moving about and working, try to keep your pelvis in a balanced position and maintain a good posture. Avoid working for long periods while stooped or twisted to the side.



When lifting, use your legs and keep your back as straight as possible. Activate your pelvic floor and deep abdominal muscles when pushing up.



Carrying the baby puts a strain on your body. Avoid one-sided carrying positions and use your core muscles while taking care of the baby.

## Well-being of the neck and shoulders

You can reduce the strain on your neck and shoulders by varying the positions in which you feed your baby. When feeding while lying down or sitting, try to find a relaxed position with the help of pillows. If bottle-feeding, remember to feed from both sides for the benefit of both your baby and yourself.



[More information can be found in Finnish on Terveyskylä's Naistalo website in the 'Raskaus ja synnytys' section and Selkäkanava's 'Selkäkipu synnytyksen jälkeen' section.](#)

## Other treatment instruction

Instructions on how to treat the mucous membrane of the perineum and vagina after childbirth can be found in Finnish on [Terveyskylä's Naistalo website in the 'Raskaus ja synnytys' section.](#)

More information on the treatment of the C-section scar and its surroundings can be found in Finnish in Cariina Rajapuro's thesis (PDF).

## Sources:

Airaksinen, O., Törnävä, M. (2017). Lantionpohjan lihasharjoittelu synnytyksen jälkeen ja virtsankarkailu. <http://www.kaypahoito.fi/web/kh/suosituksset/suositus?id=nak05513>

Aukee, P., Tiihonen, K. (2010). Raskauden ja synnytyksen vaikutus lantionpohjan toimintahäiriöihin. Duodecim 126(20). 2381–6. <https://www.duodecimlehti.fi/lehti/2010/20/duo99134>

Camut, M., Rissanen, I. (2012). Suorien vatsalihasten erkaantuma ja vatsaliharjoitteet synnyttäneillä naisilla. Opas Naistenklinikan ja Kätilöopiston sairaalan fysioterapeuteille. Metropolia University of Applied Sciences. Degree programme in physiotherapy. Thesis.

Current Care Guidelines. Virtsankarkailu (naiset)

<http://www.kaypahoito.fi/web/kh/suosituksset/suositus?id=hoi50050>

Lee, D. (2011). The Pelvic Girdle; an integration of clinical expertise and research. Fourth edition. Churchill Livingstone. Edinburgh, England.

Pylväläinen, J., Pylväläinen, J. (2017). Suorien vatsalihasten erkaumasta kuntoutuminen. Opas fysioterapeuteille, terveydenhoitajille ja synnyttäneille naisille. Metropolia University of Applied Sciences. Laurea University of Applied Sciences. Degree programme in physiotherapy. Thesis.

Rajapuro, C., Valkkio, A. (2018). Sektioarven fysioterapia. Opas sektiolle synnyttäneille äideille toipumisen tueksi. Lahti University of Applied Sciences. Degree programme in physiotherapy. Thesis.

[https://www.theseus.fi/bitstream/handle/10024/151324/Rajapuro\\_Cariina.pdf?sequence=1&isAllowed=y](https://www.theseus.fi/bitstream/handle/10024/151324/Rajapuro_Cariina.pdf?sequence=1&isAllowed=y)

Finnish Association of Physiotherapists in Pelvic Floor. <http://www.pelvicus.fi/LP-perusohje%20naisille.pdf>

Terveyskylä.fi online service

<https://www.terveyskyla.fi/naistalo/raskaus-ja-synnytys/synnytyksesta-toipuminen/kuntoutuminen-raskauden-ja-synnytyksen-jälkeen>