

PELVIC FLOOR MUSCLE TRAINING AND RELAXATION

A. PELVIC FLOOR MUSCLE TRAINING (Not Kegels!!!)

There is increasing evidence that PELVIC FLOOR MUSCLE TRAINING can help treat urinary incontinence (UI) in men post radical prostatectomy surgery. ⁽¹⁾ PELVIC FLOOR MUSCLE TRAINING is not just about strengthening the pelvic floor muscles. Men has to be able to first learn how to correctly activate the muscles, has proper coordination; such as learning how to effectively contract the muscles and relax the muscles before starting a strengthening program. Also the pelvic floor muscles has to be able to have fast reflex reaction to prevent leakages once abdominal pressure increases, such as with coughing and sneezing, and lifting heavy weights. In summary, if your pelvic floor muscles are strong, but have poor coordination and poor relaxation, you will not be able to successfully control urinary leakages after the surgery.

Here are the steps to be followed for optimal pelvic floor muscle recovery

- Step1) Pelvic Floor muscle Activation (recruitment)
- Step2) Pelvic Floor Muscle Coordination and relaxation
- Step3) Pelvic Floor Muscle Strengthening
- Step4) Functional Pelvic Floor Muscle Training

1) Pelvic Floor muscle Activation (recruitment)

This means isolating pelvic floor muscle contraction. The first thing you have to learn is how to contract the pelvic muscles independently, without using other muscles in the body. You can try this exercise in a comfortable lying position with your knees bent. Think about the area between your anus and scrotum. How does that area feel? Is there tension around the anus, if there is can you relax it? When the anus area is relaxed, you feel the anus more open, less resistance, as if you could liberate gas without needing to push it out. Stay in this relaxed position for a few minutes. Then you can try to contract your pelvic muscles, by visualizing the muscles and the area between the anus and the scrotum. The pelvic floor muscles are a strand of muscles attached from the pubic bone to the tail bone. There are also fibers attached to the external sphincter of the bladder. You will feel the anus tightening, and an anal wink, an indrawn movement in the area between the anus and the scrotum. The stronger the contraction the more movement you will experience from the inside of your pelvis. It is an inner movement. Your body should be quiet, so try not to contract the higher abdominal muscles, or gluteus muscles, or leg muscles. You should be breathing normally, so try not to hold your breath. Hold this contraction for a few seconds then relax.

2) PELVIC FLOOR MUSCLE COORDINATION

This is when you are able to effectively contract and relax the pelvic floor muscles. Relaxation is over 50% of your exercise. You would not be able to contract your muscles if they are not relaxed first, and you also have to be able to relax your muscles fully between contractions. It is more difficult to teach your muscles to relax than to contract, so it is very important that you can master relaxation before you continue with Step 3. Think about the quality of the pelvic floor muscle contraction. Is the contraction smooth, are you able to hold the contraction for a few seconds before you let go? When you relax, can you relax all the way down? How long it takes for you to relax fully? If it takes longer, than you have to wait longer before you contract again. We recommend resting for at least 3 times longer than the contraction hold. For example if you hold a maximum contraction for 3 seconds then you want to rest for 10 seconds before you contract again. But if it takes you 30 seconds to relax fully then you have to wait 30-60 seconds before you contract the pelvic muscles again.

3) PELVIC FLOOR MUSCLE STRENGTHENING

Now that you can properly activate the muscles and are able to effectively contract and relax the muscles you can start a strengthening program. The goal of the strengthening program is to be able to increase muscle bulk (hypertrophy) and elevate the bladder neck, making it easier to control leakages.

In order to keep increasing muscle strength, the muscles have to be challenged. You will need to be able to contract maximally, and then hold the maximal contraction for about 3-5 sec, then relax fully and rest for about at least 3 times the hold time. You can try 7-10 repetitions, but normally you will notice when muscles are fatiguing. Most importantly you want to be able to repeat the same amount of contraction strength. You want to stop when you notice the contraction is not as strong during the 6th repetition, or you feel you are starting to “cheat”, like using accessory muscles to initiate the contraction. You don't want to do the exercise set for more than 3 times a day, as the muscles need to rest and recover.

In order to keep increasing muscle strength and size you have to keep challenging the muscles, such as changing the positions you are doing your exercises. Usually you progress by exercising in lying with knees bent, then leg straight, then sitting and finally standing. **THESE EXERCISES ARE NOT EASY TO DO, YOU WANT TO CONCENTRATE AND ALLOCATE TIME TO DO THEM.** If you don't challenge your muscles enough they will not increase in size and bulk. That is your optimal goal, to achieve PASSIVE SUPPORT.

4) Once your muscles are coordinated and strong you can start to use pelvic floor muscle contraction functionally. For example: to control urinary leakage with coughing and sneezing, sit-to stand and when carrying heavy objects. You can control urinary leakage by contracting the front part of your pelvic floor muscles gently just before you cough and sneeze, or before you lift a heavy object. Remember, it has to be a short contraction with optimal relaxation after. For example: You contract your pelvic floor muscle gently before you cough, hold the contraction while you are coughing and let go of the contraction right after you finish coughing. You are training the pelvic floor muscles reflex reaction, encouraging the increase in tension on the urinary sphincter before you increase abdominal pressure.