

## Exercises to Prepare for Total Knee surgery



- 1. Quad Sets-** This is an exercise that you can do anywhere which does not tend to aggravate arthritic knees. Sit with your knee straight, place a small towel roll under your knee, tighten the muscle in the front of the thigh by pushing the knee downward squishing the towel roll. Hold 10 seconds, repeat 10 times. Once you learn how to do this, you can do it without the towel roll. You can also do it with your knee in different degrees of bending.



- 2- Straight Leg Raise-** This is a good exercise to begin with since the knee is not moving, it tends to not irritate the joint as much. Lie on your back with the leg to be exercised straight, the other knee bent. Pull the foot of the straight leg upwards towards your head, tighten the muscle at the front of the thigh, then lift the straight leg up about even with the bent leg, hold 3 seconds then lower, repeat 10 times, Then repeat 10 times in half lying by resting up on your elbows, then 10 times again sitting all the way up (this one will be harder and you may need to work up to it).



3- **Bridge**- Your rear muscles are important in supporting your knee by helping to control what your femur (the bone of your upper thigh) is doing.

a- Start with both knees bent, feet flat, hands at sides, Push down on your hands to contract your tummy muscles then lift your bottom up, hold 3 seconds then lower, repeat 10 times.



b- When version a seems easy, try lifting your bottom up then kicking one knee straight, bring it back down then kick the other knee straight. Repeat 10 times



4- **Hip Abduction**- This exercise is for the deep butt muscles (which again help to control your femur).

Lie on your side with your bottom leg bent and your top leg straight. Lift the top leg up and back. Hold then lower. Keep your top hip rolled forward and try not to roll back as you lift your leg. Repeat 10 times



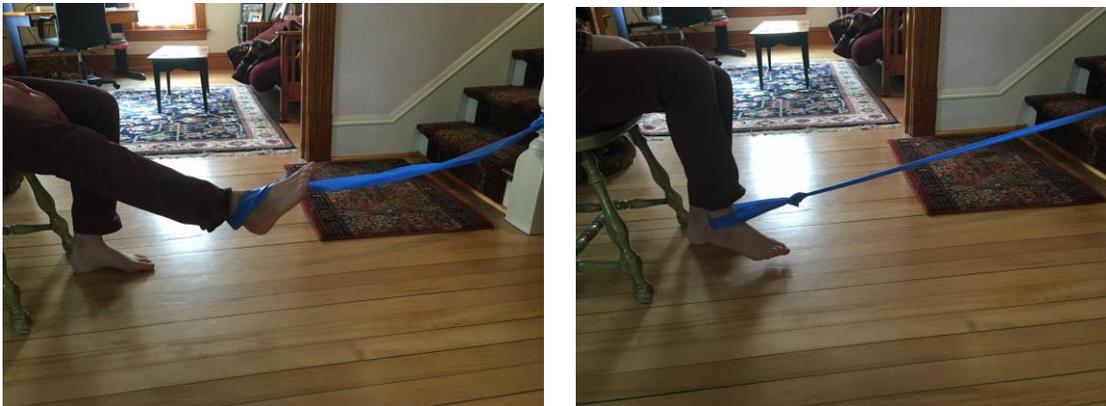
5- **Knee extension in sitting** - This exercise is to strengthen your quads- the main stabilizer of your knee. Strengthening this muscle can be tricky since exercises that strengthen your quads can irritate your knee. Sit in a chair, kick your knee up HALF WAY. Hold then lower, repeat 10- 15 times. If this seems easy, you can add a 3-4 lb weight or use a band to provide some resistance. Start with 1 set up 10. Progress up to 3 sets of 10.



6- **Partial Squat**- Stand in front of a chair that is a little higher (you can place a pillow on a regular chair), make sure that you have equal weight on both feet, bend your knees and reach with your butt for the chair, just touch your butt down then stand up again. Repeat 10 times. If this bothers your knee(s) add another pillow to the chair so you don't have so far to go down.



7- **Band Side step**- Loop a band around your ankles. With your knees straight step to the side 15 steps. Make sure to keep your feet pointed forward, don't allow the band to go slack between steps, and don't drag the back foot. Then repeat to the other direction. Repeat again with the knees in a bent position



8- **Band Hamstring Curl**- Loop a band around a heavy piece of furniture Sit in a chair then loop the other end around your foot, Pull your foot back under your chair, hold then allow your leg to come forward again. Repeat 10-15 times with each leg. An alternative if you don't have a band is to do this exercise lying on your stomach, bending your knee up, hold, then lower. Repeat 10-15 times (see picture Below)



- Start with the first 4 exercises
- Start with one set of 10 repetitions one time per day
- If this is well tolerated progress to doing them 2 times/day
- If your knee becomes sore do them only one time/day
- You can also use an ice pack on the front and the back of your knee for 10-15 minutes after exercise
- We also strongly encourage you to walk as much as you can. Using a cane or walker if that makes it possible for you to walk.
- If you have any questions feel free to call Rehabilitation Therapies at UVM MC at Tilley Drive at 802-847-7910. We are happy to serve as a resource for you!