



SPECIALISTS IN THE
MEDICINE OF *motion*



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Sports Medicine, Knee & Shoulder Disorders

Please take a moment to look over the following instructions regarding your surgery. We know that surgery can be a very stressful experience for you and your family and that you may be nervous. This is normal, and we will make every effort possible to make your experience as the best it can be! We are dedicated to achieving the best possible outcome for you. This takes a team effort often between you, us, and many other healthcare professionals.

The following packet will hopefully be informative and decrease your stress prior to surgery! There are many other great resources about your condition, knee & shoulder disorders, and sports medicine. We encourage you to learn more about Dr. FitzGibbons, your condition, and access links to help helpful websites and videos at www.OrthoHealth.com.

We strive for nothing less than excellence in our quest to help you be the best version of you. We look forward to seeing you on the day of surgery!



KNEE STRENGTHENING EXERCISES

What can I do to strengthen my knee?

The answer to this question is always individualized to the patient. A younger individual without any significant knee arthritis can be more aggressive in lower extremity strengthening. There are multiple types of exercises that can be done at home without any equipment or other types of exercise that can be done with gym equipment at a recreation center and/or health club.

Attempting to always use stairs going up and down and avoiding elevators is a simple, yet highly efficient way to work at strengthening your lower extremities as well as working on cardiovascular fitness.

Simple step-ups involve placing one foot on an elevated step (could be even regular stairs in a home) and then lifting the opposite foot off the ground and slowly lowering it and touching the ground and raising up again without pushing off the floor so that you are isolating the quadriceps and hamstring muscles for maximum strengthening and also working on core/balance.

Wall sits simply entail putting on a pair of athletic shoes and actually trying to sit leaning against a wall with your back against the wall and lowering your body so that your hip is at a right angle as well as your knee. Attempting to stay in this position for 30 to 60 seconds isolates your quadriceps muscle in an isometric position and does not put a significant load on the patella as some people have a little bit of chondromalacia, which is an irregular surface of the cartilage behind the knee cap.

Lower extremity strengthening can also be done in a gym / recreation center environment. I feel that one of the best machines in any gym is the leg press. This is an apparatus that most commonly you would sit in while placing both feet flat on the plate, putting a manageable weight on the weight stack and simply flexing/extending the knees and never flexing past 90 degrees with your knee. This called a co-contraction in that your quadriceps and your hamstrings have to function for this type of activity, as well as a closed chain exercise, which applies less stress to the cartilage of the knee and generally is less stressful to the cartilage.

The hamstring machine is often done either laying down on your stomach and flexing your feet towards your back side, or on some machines, sitting upright and pulling your heels towards your bottom.



KNEE STRENGTHENING EXERCISES

The leg extension machine is commonly found in all athletic recreation centers / workout facilities, but it is important to be careful with this machine as going from a 90 degree position to a full extended position puts a maximal stress on the patellorfemoral joint (knee cap) and this can often irritate the knee rather than be beneficial. My preference is to do what are called Terminal Extensions and this entails placing a pin in the leg extension machine mechanism that only allows you to go from 30 degrees short of full extension to full extension and then back to 30 degrees of flexion.

This isolates the vastus medialis obliquus, which is one of the most important quadriceps muscles is the inside part of your knee.

Obviously, being active and trying to walk short distances, instead of driving the car, can certainly help work muscle strengthening of the lower extremities.