

# WHAT YOU NEED TO KNOW

## ABOUT YOUR KNEES AND REHAB



A strong and steady gait is a key component to good health. When the knees go, every other part of the body begins a downward spiral. You use 200 muscles to take one step. Without strong, healthy knees, it's difficult to

perform even the simple task of standing or walking, and without using those muscles, they too become weak.

According to a study by the American Academy of Orthopedic Surgeons, back or knee injuries are the most prevalent musculoskeletal impairments, and knee problems were reportedly the reason for approximately 12 million visits to doctor's offices.

### **The knee is Complicated**

The knee is a joint that has three compartments. The thighbone (femur) meets the large shinbone (tibia) forming the main knee joint. This joint has an inner (medial) and an outer (lateral) compartment. The kneecap (patella) joins the femur to form a third compartment, called the patellofemoral joint.

The knee joint is surrounded by fluid-filled sacs called bursae, which serve as gliding surfaces that reduce friction of the tendons. Below the kneecap, a large tendon (patellar tendon) attaches to the front of the tibia bone. There are large blood vessels passing through the area behind the knee (referred to as the popliteal space). The large muscles of the thigh move the knee.

## What Goes Wrong?

According to Debra Glett, physical therapists at the Peter B. Lewis Aquatic & Therapy Center (PBL), a Chondromalacia patella is the most common cause of chronic knee pain. The condition is also called the patellofemoral syndrome. Softening of the cartilage beneath the kneecap (the patella) results in small areas of breakdown and pain around the knee. Instead of gliding smoothly over the knee, the knee cap rubs against the thigh bone (the femur) when the knee moves. The changes can range from mild to complete erosion of the cartilage. Chondromalacia commonly occurs in females.

## Even When There is Damage, It Doesn't Always Hurt...

According to a study by the National Institute on Aging, “the prevalence of meniscal tears in adults increases with age, but often they are not accompanied by knee pain or other symptoms.” Research led by Dr. Martin Englund of the Boston University School of Medicine determined 61 percent study participants with meniscal tears reported no pain, aching, or stiffness. In people with knee osteoarthritis, the prevalence of a meniscal tear was 63 percent among those with knee pain, aching, or stiffness on most days and 60 percent among those without these symptoms.

## Try Aquatic Therapy Before & After Knee Surgery



- Pre-strengthening therapy can help prepare the body for surgery and speed healing time.
- Warm water exercises encourage knee range-of-motion with decreased pain levels.
- Physical therapy

- water exercises improve walking by decreasing the load on the knee due to the buoyancy effect.
- During knee therapy, your total participation is quite important in the self-management of symptoms and may include “homework” or assigned exercises to do outside of therapy to achieve the full benefit.

“For your own recovery after knee surgery, you must participate fully in your homework for the best therapy results,” Glett suggests.

The Peter B. Lewis Aquatic & Therapy Center specializes in rehabilitation for knee pain, strengthening, and gait (walking, along with land, aquatic, and balance training for both pre-op and post-op situations. They recommend having a therapist assess your walking, strength, motion and balance, and develop an individualized exercise plan towards functional goals with a licensed physical therapist or a physical therapist assistant team.

*Meet our Expert: \*\*Physical Therapist, Debra Glett received her Bachelors of Arts / Liberal Arts, followed by Bachelors of Science in Physical Therapy both from The Ohio State University. She has been a physical therapist since 1994. She is McKenzie certified in spine assessment and treatment and is also certified in golf fitness by the Titleist Performance Institute. Debra can work with anyone needing Physical Therapy.*

***For information on rehabilitation of the knee before, during or after a knee replacement, call the Peter B. Lewis Aquatic & Therapy Center at 216-595-7345.***