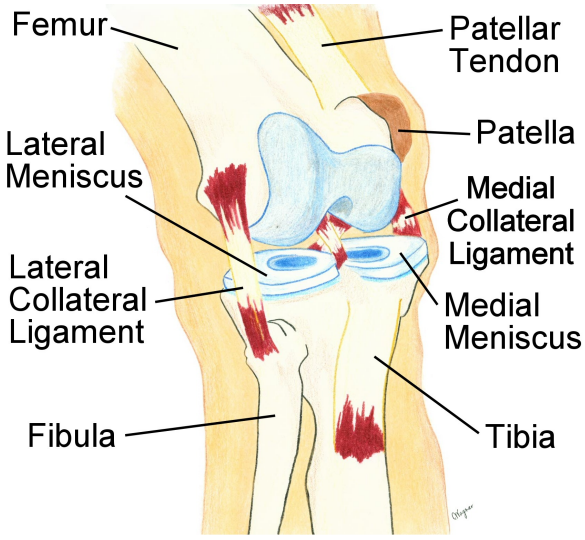
Knee Bracing

Knee braces are supports to help stabilize and protect an injured or painful knee. They come in many different styles. They should support and protect the knee without increasing the chance of other injuries to yourself or others. It is important not to have a false sense of security when using a brace. Knee braces that help you to keep using your knee:

- Do not restore normal knee stability under high stress forces.
- May decrease some aspects of athletic performance.



Some of the different types of knee braces are:

- **Prophylactic knee braces** are designed to prevent or reduce the severity of knee injuries during sports that make injury to the knee more likely.
- **Rehabilitative knee braces** are designed to allow protected motion of:
  - Injured knees.
  - Knees that have been treated with or without surgery.

There is no evidence that the use of a supportive knee brace protects the graft following a successful anterior cruciate ligament (ACL) reconstruction. However, braces are sometimes used to:

- Protect injured ligaments.
- Control knee movement during the initial healing period.

They may be used as part of the treatment program for the various injured ligaments or cartilage of the knee including the:

- Anterior cruciate ligament.
- Medial collateral ligament.
- Medial or lateral cartilage (*meniscus*).
- Posterior cruciate ligament.
- Lateral collateral ligament.

Rehabilitative knee braces are most commonly used:

- During crutch-assisted walking right after injury.
- During crutch-assisted walking right after surgery to repair the cartilage and/or cruciate ligament injury.
- For a short period of time, 2-8 weeks, after the injury or surgery.

The value of a rehabilitative brace as opposed to a cast or splint includes the:

- Ability to adjust the brace for swelling.
- Ability to remove the brace for examinations, icing or showering.
- Ability to allow for movement in a controlled range of motion.

- **Functional knee braces** give support to knees that have already been injured. They are designed to provide stability for the injured knee and provide protection after repair. Functional knee braces may not affect performance much. Lower extremity muscle strengthening, flexibility, and improvement in technique are more important than bracing in treating ligamentous knee injuries. Functional braces are not a substitute for rehabilitation or surgical procedures.
- **Unloader/offloader braces** are designed to provide pain relief in arthritic knees. Patients with wear and tear arthritis from growing old or from an old cartilage injury (*osteoarthritis*) of the knee, and bow legged (*varus*) or knock knee (*valgus*) deformities, often develop increased pain in the arthritic side due to increased loading. Unloader/offloader braces are made to reduce uneven loading in such knees. There is reduction in bowing out movement in bow legged knees when the correct unloader brace is used. Patients with advanced osteoarthritis or severe varus or valgus alignment problems would not likely benefit from bracing.
- **Patellofemoral** braces help the kneecap to move smoothly and well centered over the end of the femur in the knee.

Most people who wear knee braces feel that they help. However, there is a lack of scientific evidence that knee

braces are helpful at the level needed for athletic participation to prevent injury. In spite of this, athletes report an increase in knee stability, pain relief, performance improvement, and confidence during athletics when using a brace.

Different knee problems require different knee braces:

- Your caregiver may suggest one kind of knee brace after knee surgery.
- A caregiver may choose another kind of knee brace for support instead of surgery for some types of torn ligaments.
- You may also need one for pain in the front of your knee that is not getting better with strengthening and flexibility exercises.

Get your caregiver's advice if you want to try a knee brace. The caregiver will advise you on where to get them and provide a prescription when it is needed to fashion and/or fit the brace.

Knee braces are the least important part of preventing knee injuries or getting better following injury. Stretching, strengthening and technique improvement are far more important in caring for and preventing knee injuries. When strengthening your knee, increase your activities a little at a time so as not to develop injuries from over use. Work out an exercise plan with your caregiver and/or physical therapist to get the best program for you. Do not let a knee brace become a crutch.

Always remember, **there are no braces which support the knee as well as your original ligaments and cartilage you were born with**. Conditioning, proper warm-up and stretching remain the most important parts of keeping your knees healthy.

HOW TO USE A KNEE BRACE

- During sports, knee braces should be used as directed by your caregiver.
- Make sure that the hinges are where the knee bends.
- Straps, tapes, or hook-and-loop tapes should be fastened around your leg as instructed.
- You should check the placement of the brace during activities to make sure that it has not moved. Poorly positioned braces can hurt rather than help you.
- To work well, a knee brace should be worn during all activities that put you at risk of knee injury.
- Warm up properly before beginning athletic activities.

HOME CARE INSTRUCTIONS FOR A KNEE BRACE

- Knee braces often get damaged during normal use. Replace worn-out braces for maximum benefit.
- Clean regularly with soap and water.
- Inspect your brace often for wear and tear.
- Cover exposed metal to protect others from injury.
- Durable materials may cost more, but last longer.

SEEK IMMEDIATE MEDICAL CARE IF:

- Your knee seems to be getting worse rather than better.
- You have increasing pain or swelling in the knee.
- You have problems caused by the knee brace.
- You have increased swelling or *inflammation* (redness or soreness) in your knee.
- Your knee becomes warm and more painful and you develop an unexplained temperature over 101º F (38.3º C).

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

Most of this information courtesy of references from the AAOS (American Academy of Orthopedic Surgery)

See your caregiver, physical therapist or orthopedic surgeon for additional information.

Document Released: 03/09/2005 Document Re-Released: 10/15/2010
ExitCare® Patient Information ©2011 ExitCare, LLC.