



## RUNNER'S KNEE

### DESCRIPTION:

Deterioration or wearing away of the cartilage under the kneecap, resulting in pain and inflammation. The cartilage becomes rough due to the kneecap not riding smoothly over the knee. It is a condition causing pain in the front of the knee and is also referred to as chondromalacia patellae, or CMP.

### SIGNS AND SYMPTOMS:

- Pain beneath or on the sides of the kneecap.
- Grinding or popping of the kneecap when the knee is bent.
- Swelling of the knee.
- Pain increases with hill running.
- Sometimes the knee will seem to give way or lock.

### CAUSES:

- Overuse, running too long, too fast, or running too many hills.
- Runners that are knock kneed or flat footed.
- Tight quadriceps muscles, hamstrings and iliotibial band (ITB).
- Weakness, especially of the inside part of the quadriceps just medial to the kneecap.
- Biomechanically incorrect or worn out running shoes.
- Overtraining.

### TREATMENT:

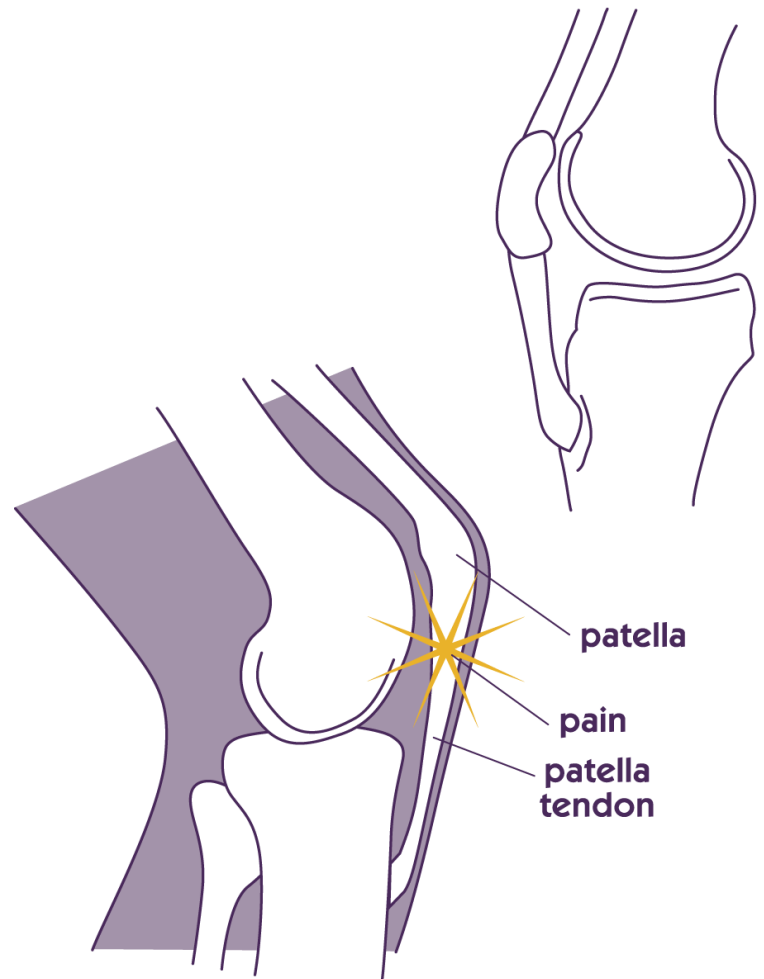
- Decrease training load and intensity.
- Non-steroidal anti-inflammatory drugs (Ibuprofen/Naproxen).
- Apply ice to the painful area.
- Massage
- Stretching the quadriceps muscle, hamstrings and iliotibial band (ITB).
- Return to activities gradually.

### IF CONSERVATIVE TREATMENT FAILS:

- Consult an Orthopaedic Physician.
- If the injury doesn't respond to self treatment the physician may order physical therapy and a biomechanical evaluation.

### ALTERNATIVE EXERCISES TO LESSEN THE STRESS ON THE LEG:

- Swimming, pool running, cycling, "spinning".
- Avoid any exercise that places strain onto the knee.



### PREVENTION:

- Stretching of the quadriceps, hamstrings, and the iliotibial band (ITB).
- Avoid excessive downhill running and uneven surfaces.
- Strengthen quadriceps, hamstrings, and calf muscles.
- Biomechanically correct shoes.
- Gradual return to activity with rest periods build into the training program.