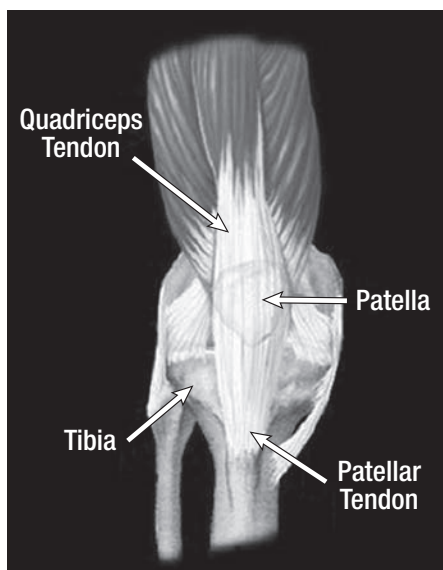


Quadriceps Contusion



The quadriceps muscle group is made up of four large muscles located on the anterior thigh. The action of this muscle group is to extend (straighten) the lower leg. A contusion (direct blow) to this area is a common athletic injury in football, basketball, soccer or any contact sport. Contusions are referred to as mild, moderate or severe determined by the amount of motion of the knee after injury; (mild > 90°, moderate 45-90° and severe < 45°).

The severity of a quadriceps contusion is almost always underestimated. When the athlete is “warmed-up” during a

practice or competition, contusions rarely appear to be more than mild. However, stiffness and disability soon develop when activity ends.

For this reason conservative measures are necessary to protect the athlete from making the injury worse by continuing to play. If a quadriceps contusion goes untreated, it can result in a serious complication called myositis ossificans—a calcification of a portion of the muscle involved in the injury.

Signs/Symptoms

- History of a blow to the front of the thigh
- Weakness and pain in the quadriceps muscle group
- Tightness or swelling of the quadriceps muscle group
- Inability to actively bend the knee
- Palpable hematoma in the muscle tissue

Initial Treatment

- Immediately after the injury apply ice to the injured area and place the muscle on a light stretch (90°) for 20 minutes
- Repeat the “ice-on-stretch” 1–2 times every 2 hours for the first 48–72 hours

Following the Injury

- Compression with an elastic bandage
- Use crutches if the athlete is unable to walk without pain or a limp
- Complete rest from all lower extremity activity for three days
- Do not:
 - Use heat or heat rubs
 - Massage the thigh
 - Stretch the thigh muscles aggressively (tightness is due to the swelling, not tight muscles)

Follow-Up Treatment (3–7 days after injury)

Begin when the athlete can actively bend the knee equal to the opposite leg

- Begin mild quadriceps stretching 2–3 times per day
- Begin light activity like jogging, swimming or stationary cycling
- Increase activity each day if no pain is present
- Ice 15–20 minutes after activities