

BACK IN THE GAME

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Rehabilitation information for those who enjoy the sporting life

Growth Plate Injuries

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The growth plate (*epiphyseal plate or physis*) is the area of growing tissues near the end of long bones in children and adolescents. The growth plate helps to determine the future length and shape of a mature bone. When growth is complete (sometime during adolescence), the growth plates close and are replaced by solid bone.

Growth plate injuries can occur in children because bones are not mature or done growing. Plate injuries comprise 15% of all childhood fractures, and occur twice as often in boys (ages 14-16) as in girls (ages 11-13).

Frequent areas of injury are the radius (forearm) near the wrist, and the tibia and fibula (lower leg bones) near the ankle. However, these injuries can occur in any long bones.

In children, the weakest tissue is near the joints – weaker than nearby ligaments and tendons. Therefore, when a child suffers an injury to a joint, they are more likely to suffer a fracture at the growth plate, whereas an adult is more prone to sprain the ligaments or develop tendonitis.

The cause of a growth plate injury can be traumatic (the result of a fall or contact) or repetitive (long distance running). If a child suffers an injury around a joint to the point that they: (1) are unable to resume play; (2) demonstrate decreased ability to function/play over the longterm; or (3) have a visible deformity or severe pain preventing motion or weight-bearing, then they should see a doctor. The doctor will then refer to x-ray, MRI, CT scan, or an ultrasound to diagnose. If left untreated or undiagnosed, a growth

plate injury can cause permanent damage and interfere with limb growth.

Growth plate injuries, once diagnosed, are treated in the same manner as other fractures. If the fracture is not displaced, it will be immobilized and allowed time to heal. If the fracture is displaced, the doctor will manipulate it back into place or perform surgery, then the fracture will be immobilized until healed.

Once healing begins, physical therapy for strengthening and range-of-motion exercises are strongly recommended before returning to sporting activities.

Most growth plate fractures heal without any lasting effect depending on the severity of the injury, the age of the child, and which growth plate is injured. Some fractures in the knee require more bone growth than other fractures.

For more information on growth plate injuries, call the Marquette General Rehabilitation Center at 800-562-9753 x3186 or 906-225-3186 and ask to talk to a physical therapist.



Sports
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Calf Strain

Marquette General Sports Medicine

A calf strain is an injury in which the muscle fibers or tendons in the back of the leg, just below the knee are stretched or torn. A calf strain is similar to an Achilles tendon tear or rupture, but occurs higher up in the back of the leg.

A calf strain can occur during physical activity when an athlete pushes off forcefully from their toes such as running, jumping or lunging.

A pulled calf muscle may cause sudden pain and bruising of the lower leg. The calf muscle may spasm and contract forcefully, and the athlete may actually hear or feel a pop or a snap. It will be hard for the athlete to rise up on their toes, the calf may be swollen, and bruises may show up in the foot and ankle.

Treatment for calf strains may include applying ice at intervals during the day, elevating the injured leg, wrapping the sore muscle, taking anti-inflammatory medication, going to physical therapy and performing rehabilitation exercises.

Calf strains are best prevented by warming up properly and stretching before physical activity. Stretching is especially important if the athlete will be jumping or sprinting.



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