

Sprains and Strains

Sprains and strains are common injuries in active children. A sprain is an injury to the ligaments in and around joints. A strain is an over-stretched or “pulled” muscle. Any time your child has an injury causing a lot of tenderness, swelling, or difficulty moving a limb or joint, you should seek medical advice.

What are sprains and strains?

Sprains are common athletic injuries in children. The ankle is the most commonly sprained joint, but wrist, finger, and knee sprains may occur as well. Sometimes it's difficult to tell a sprain from a fracture. You should always seek medical attention if your child has more than a mild sprain.

Strains, sometimes called “pulled muscles,” are also very common. Strains happen away from the joint. The upper leg is a common site for strains, as are the chest, groin, and shoulders.

What do they look like?

- **Ankle or knee sprains.** Ankle and knee sprains are common sports injuries. Ankle sprains most often result from a fall with the foot turned inward. Knee sprains may result from various causes, such as a direct hit or jumping and landing off-balance. The joint is painful, especially when your child tries to move it. If there is a lot of pain or swelling around the injury or if your child cannot walk on the injured leg, seek medical attention.
- **Wrist or finger sprains.** Sprains of the wrist and hand joints may also occur. For example, your child's finger may get jammed in a ball game. If your child has significant pain or swelling, get medical attention.
- **Muscle strains.** Strains can occur in almost any muscle. Strains of the thigh muscles are common, especially in active or athletic children. Muscle strains may be seen when the muscle is overstretched during sports or other activities, from a direct hit, or for other reasons. Symptoms include pain, tenderness, and occasionally swelling.

What are some possible complications of sprains and strains?

The major concern is that a bone fracture may be present in addition to the damaged joint ligaments, especially with sprains. That's why it's important to seek medical evaluation if your child has more than a mild sprain, with swelling, bruising, moderate to severe pain, limping, or inability to use the injured limb or joint normally.

With any type of sprain or strain, there is a chance of reinjuring the joint or muscle. This is especially true in

young athletes who don't give their injuries the time and rest they need to heal.

What puts your child at risk of strains and sprains?

- Strains and sprains usually occur in older children, especially athletes. Because young children's ligaments are so flexible, they have relatively few joint sprains.
- Not stretching before and after physical activity puts your child at risk for strains and sprains.

Can strains and sprains be prevented?

- Stretching before and after physical activity is often recommended to reduce the risk of muscle strains and sprains.
- If your child has had a significant joint sprain, he or she may be at risk of injuring the joint again. Strengthening exercises and other recommended rehabilitation techniques may help to reduce this risk.

How are strains and sprains treated?

For *mild muscle strains or sprains*, the usual recommended treatment is rest, ice, compression, and elevation. To remember these steps, just think of the word “RICE”:

- **Rest.** Use the injured area as little as possible for the first day or two after the injury. Passive movement, which does not produce pain, will keep the joint from becoming stiff. Try to keep your child off an injured leg, especially if the knee or ankle is injured.
- **Ice.** Put an ice pack on the injured area. This will help to control swelling and pain. Don't put the ice directly on your child's skin because the cold may cause skin damage. Instead, put the ice in a plastic bag and wrap it in a cloth. For muscle strains, heat (for example, a heating pad) is sometimes recommended instead of or in addition to cold.
- **Compression.** Wrapping the injured area in an elastic bandage may help to reduce swelling.
- **Elevation.** If possible, have your child raise the injured muscle or joint while he or she is resting.

Medications such as acetaminophen or ibuprofen may help to control pain. In mild strains and sprains, the injured joint or muscle should start to feel better in a day or two.

For more *severe muscle strains and sprains*, other treatments may be required. If the ligament or muscle is completely torn, it may need to be repaired by surgery.



When should I call your office?

Call our office if:

- Your child has a joint or muscle injury producing swelling, significant pain, or difficulty moving the joint.

- Your child is limping or is unable to move the injured joint without pain.
- Your child's sprain or strain doesn't seem to get better after a day or two of "RICE" or other home treatments.