



Everything you
need to know
about sudden
(acute) finger,
hand and wrist
injuries

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SUDDEN (ACUTE) FINGER, HAND, AND WRIST INJURIES

Minor injuries to the finger, hand, or wrist that cause pain or swelling are common. Even though most of our movements don't cause problems, symptoms can develop from everyday wear and tear, injuries, or overuse.

The most common finger, hand, and wrist injuries happen during:

- Sports.
- Recreational activities.
- At work.
- Projects around the home (especially when using machinery).
- Fights.
- Falls.

Wrestling, football, soccer, and other contact sports have a higher risk of finger, hand, or wrist injury. The same is true for higher-speed sports, such as biking, in-line skating, skiing, snowboarding, and skateboarding. Other sports that bear weight on the hands and arms (such as gymnastics), increase the risk for injury. There is also an increased risk of injury for sports that use hand equipment such as ski poles, hockey or lacrosse sticks, or racquets.

Most finger, hand, or wrist injuries in children occur during sports, play, or from accidental falls. In children, injuries at the end of a long bone near a joint may damage the growth plate (physis) and always should be examined by a doctor.

When we age, we lose muscle mass and bone strength (osteopenia), putting older adults at higher risk for injuries and fractures. Balance and vision problems also increase the risk of accidental injury.

SUDDEN (ACUTE) INJURIES



A direct blow, penetrating injury, fall, or twisting, jerking, jamming, or bending a limb abnormally can cause an acute injury. Pain can be sudden and severe, with bruising and swelling in the area soon after the injury. Acute injuries include:

BRUISES

The effects of gravity can cause bruising and discolored skin in the fingers after a wrist or hand injury, even though that was not the area that suffered the blow or impact.

SPRAINS

Sprains are injuries to the ligaments, connecting one bone to another. Sprains are sometimes mistaken for broken bones because the injury can cause both a sprain and a fracture in the same area. Symptoms can be mild or severe and are classified as first-degree, second-degree, and third-degree sprains.

First-degree sprains are when the ligament is stretched but not torn. There is usually mild to moderate pain and swelling. The joint is stable and is not loose or wobbly. The joint moves normally but is typically painful.

Second-degree sprains partially tear the ligament. There may be a pop or snap that's felt or heard at the time of the injury. Moderate to severe pain and swelling restricts movement. The joint may be mild to moderately unstable and look bruised.

Third-degree sprains completely tear the ligament with a pop or snap at the time of the injury. Sometimes less than with a partial tear, symptoms include mild to severe pain, swelling, and bruising. Joints feel loose or wobbly with a grating sound when trying to move them. A bulge is common at the site of a complete tear, along with numbness or tingling.

Advil or Motrin (ibuprofen) and Aleve or Naprosyn (naproxen) are non-steroidal over-the-counter anti-inflammatories that help relieve pain and swelling.

Minor sprains often heal well with home treatment, but moderate to severe sprains need prompt medical evaluation and treatment. Your doctor may prescribe a cast or splint, physical therapy, medicine, or surgery. Recovery times for sprains vary depending on a person's age and health, and the location and severity of the injury.

Treatment for sprains includes rest, immobilization, ice, compression, and elevation. This treatment should be used as soon as possible after a sprain to relieve pain and swelling, as well as promoting healing and flexibility.

REST. Rest and protect the sore or injured area. Take a break, change, or stop any activity that is causing the pain or soreness.

ICE. Cold reduces pain and swelling. Apply ice or cold pack immediately to prevent and reduce swelling. Apply it for 10 to 20 minutes at a time - three or more times a day. Never apply ice or heat directly to the skin - place a towel between the cold or heat pack and the skin.

COMPRESSION. Wrapping the injured or sore area with an elastic bandage (such as an Ace bandage) helps decrease swelling. Don't wrap too tightly as this can cause swelling below the affected area.

ELEVATION. Raise the injured area with pillows while applying ice.

SPECIFIC INJURIES



SPECIFIC INJURIES TO LIGAMENTS (SKIER'S THUMB)

Skier's Thumb is an acute injury to the ligament of the thumb, located on the inside of the thumb's first knuckle. This ligament (the ulnar collateral ligament - UCL) provides stability for the thumb. The injury is commonly called Skier's Thumb because it is seen among skiers who fall with their ski pole in their hand.

INJURIES TO TENDONS (MALLET FINGER)

Tendons are the strong and flexible fibers connecting muscle to bone. As you move, they glide smoothly over muscles. Tendons vary in size and shape. Mallet finger (also known as baseball finger or drop finger) is when you try to catch a ball, and the ball strikes your fingertip with a lot of force. The tendon ruptures at the base of the finger joint. The result is a bent fingertip that can't be straightened or is painful and swollen.

STRAINS (PULLED MUSCLES)

Overstretching muscles causes most strains. They can be severe, such as a torn muscle or tendon, or minor. Symptoms of a strain vary depending on the severity of the strain and can include pain, tenderness (that is worse with movement), swelling, bruising, limited muscle movement, and a bulge at the site of a complete tear.

Recovery time for a muscle strain varies depending on a one's age and health, as well as the type and severity of the strain. While minor strains often heal well with home treatment, severe strains need medical treatment. If severe strains are not treated, long-term pain, limited movement, and deformity can result.

BROKEN BONES (FRACTURES)

Fractures are breaks in a bone that can range from hairline cracks to bones broken into two or more pieces. Fractures can occur at the same time as other injuries, such as sprains, strains, or dislocations.

Signs and symptoms of fractures include:

- A pop or snap at the time of injury.
- Pain that increases with movement or when pressure is applied.
- Swelling and bruising.
- Limited movement.
- Bone movement where there is no joint (for example, a bend in the arm between the elbow and wrist).
- Bone poking through the skin.
- Bone visible in the wound.

Fractures require medical attention, along with any other injuries that may have occurred at the same time. The broken bone may need to be set, cast, or splinted to help it heal. Depending on the type of fracture, it may require surgery.

Recovery time for a fracture can vary from weeks to months, depending on:

- Age.
- Health.
- Type of fracture.
- Location of the fracture.
- Severity of the fracture.

Other injuries may complicate treatment.



DISLOCATIONS & CRUSHING INJURIES

DISLOCATIONS

Dislocations are when a bone is pulled or pushed out of place, and out of its normal relationship to the other bones that make up a joint. This can happen in joints such as the kneecap, hip, finger, elbow, or shoulder.

Dislocation can be caused by direct blows to a joint, falls, or sudden twisting movements. Even everyday activities can cause dislocations if a person has unstable joints.

Dislocations can be problems even if the bone pops back into place. Soft tissues in or around a joint (such as ligaments, tendons, muscles, cartilage, and the joint capsule) can stretch or tear. Nerves and blood vessels can be damaged. Pieces of bone at the base of the joint can break off and end up inside the joint. Dislocations can cause fractures that extend into the joint.

CRUSHING INJURY, LEADING TO COMPARTMENT SYNDROME.

Compartment syndrome develops when swelling takes place within an enclosed area (a compartment), in which muscles, nerves, blood vessels, and bones have no room to expand. Pressure on arteries, veins, and nerves causes extreme pain, slows circulation to the muscles and nerves, and can cause permanent damage to the tissue.

Swelling that causes compartment syndrome is usually caused by decreased blood flow, trauma, bleeding, and fluid buildup. Compartment syndrome requires immediate emergency medical treatment to prevent tissue death and permanent dysfunction.

People involved in a significantly increased level of physical activity such as long-distance runners or new military recruits can develop chronic compartment syndrome. Symptoms are less sudden, less severe, and often improve with rest.



**Emergency
Room**



**Main
Entrance**



SEEK MEDICAL ATTENTION

Anyone with a finger, hand, or wrist injury should immediately seek medical attention. Time is of the essence as the potential for permanent damage, and destructive injury increases significantly when medical attention is delayed. Cuts and hand injuries need advanced treatment to prevent infection or loss of function, regardless of size.

A cut that may require stitches needs medical evaluation. If in doubt about whether a cut needs stitches, call a doctor for guidance.

Injuries to the hand with the following symptoms generally require emergency medical attention:

- Severe bleeding.
- Numbness.
- Loss of motion or strength.
- Severe pain.
- Obvious deformity.
- Signs of infection (tenderness, local warmth, redness, swelling, pus, or fever).
- Exposure of underlying structures (tendons, bones, joints, arteries, veins, or nerves).

Also seek emergency medical care in these situations:

- Fractures.
- Dislocations.
- High-pressure injuries.
- Amputations.
- Deep, gaping (open), or dirty cuts.
- Wounds from a human or bite (including cuts from striking a tooth during a fight).
- Burns (if the skin is disrupted or if the burn goes completely around a finger, hand, or wrist).



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