



BSA SAFETY MOMENT

ORTHOPEDIC INJURIES

SUMMARY

We all know how easy it is to turn an ankle on a rough trail with a heavy pack on our backs—an injury that can quickly bring a trip to an unpleasant end. Injuries of the bones (fractures), joints (dislocations), ligaments (sprains), or muscles and tendons (sprains) are common after falls, collisions, twists, or overuse. Fortunately, many of these types of injuries can be prevented.

GENERAL INFORMATION

Prevention and Incidence

Scouting involves vigorous physical activity, and can put anyone participating at risk for injury. To identify and reduce injuries, we must understand both the activity and the risks involved, which includes planning, preparation, observation, and supervision. It is important to prepare for the activity, select a safe site, use well-maintained equipment, provide appropriate supervision, and have the necessary supplies and knowledge to treat injuries that may occur.

Assessment of Injury

First-aid assessment of orthopedic injuries is completed with the **DOTS** assessment technique (deformity/open wound/tenderness/swelling). **Deformity** indicates an acute problem, e.g., a broken bone. Presence of an **open wound** may be an important indication of a severe problem. Other indications of injury include localized **tenderness** and **swelling**, as well as an inability to bear weight.

Treatment of Minor Injuries

The **RICE** method (rest, ice, compression, and elevation) is the appropriate treatment for most minor soft tissue injuries.

- **Rest**—Stop using the injured area.
- **Ice**—Apply cold therapy for 15 to 20 minutes every four hours. Never apply ice directly to the skin; instead, place a thin cloth between the ice and the skin to prevent skin damage.
- **Compression**—An elastic bandage can help prevent swelling and provide support. Remember: Do not wrap it so tightly that it cuts off circulation. Be sure to check for circulation, sensation, and motion after applying the wrap and periodically thereafter. Signs to check for include decreased sensations, throbbing pain that is different from the injury, tingling, bluish or mottled skin, or a decreased pulse. If any of these signs are present, the wrap should be released and reapplied.
- **Elevation**—Raise the injured extremity above the level of the heart when possible. This will help reduce swelling.

When to Seek Advanced Care

- Any open wound associated with a potential orthopedic injury, including puncture wounds located near a joint, requires emergency medical care.
- If symptoms persist (swelling, pain, deformity, or inability to bear weight), the injured person should be transported for advanced care and assessment.

First-aid kits should include a SAM-type splint and material for padding bony prominences, as well as elastic bandages, e.g., Ace wraps. Encourage your unit to take BSA's wilderness first aid course for any adventure, especially those that take place in the backcountry.

RESOURCES

- American Academy of Pediatrics—Sports Injury Prevention Tips: www.aap.org/en-us/about-the-aap/aap-press-room/news-features-and-safety-tips/Pages/Sports-Injury-Prevention-Tip-Sheet.aspx
- Web MD—Seven Most Common Sports Injuries: www.webmd.com/men/features/seven-most-common-sports-injuries#2
- BSA Wilderness First-Aid Curriculum and Doctrine Guidelines: <https://filestore.scouting.org/filestore/pdf/680-008.pdf>