



## Strains vs. Sprains

### DEFINITIONS

**Strain** – Pulling or overstretching a muscle or tendon (tissue connecting muscles to bones). Common muscle strains occur in the back, shoulder or thigh. Strains often result from lifting a heavy object, excessive work or while playing sports.

**Sprain** – Overstretching or tearing of a ligament (tissue connecting bones together in your joints). Common sprains occur in the ankle, wrist, elbow or knee. Sprains occur when a joint is overextended by falling or twisting a body joint.

### INITIAL CARE - Treatment for both sprains and strains is similar (RICE)

- **Rest** is the first and most important. Discontinue use of the injured joint immediately. Further immobilization by use of a splint or crutches may be recommended for a short period of time to prevent further injury.
- **Ice** application to the affected joint as soon as possible after injury occurs will reduce swelling and pain and minimize the inflammatory process. When cold is applied, it will deeply penetrate the soft tissue which will slow down blood flow to the area, reducing swelling and causing numbness of the nerve endings. You will experience the following sequence of sensations – cold, stinging, burning, and numbness. Although it is uncomfortable, it is important to tolerate the cold. Once the injured area becomes numb, the cold should be removed. Ice may be applied by placing an ice bag over the injured part or by gently massaging the area with ice. Treatment should consist of 20 minutes of “ice-on-cooling” followed by 90 minutes of “ice-off-warming” for at least twice a day for the first 72 hours for mild injuries. More severe injuries require more frequent ice applications in the first 72 hours.
- **Compression** will also help reduce swelling and is provided by wrapping the injured area snugly with an ace wrap. The ace wrap should be worn during periods of activity – preferably following ice application and elevation. The ace wrap should not be worn while sleeping. The bandage should be applied from the furthest point of the involved area and wrapped upward. For example, an injured ankle should be wrapped from the toes toward the knee. An injured wrist should be wrapped from the fingers to the elbow. An injured knee should be wrapped from the calf toward the thigh.
- **Elevation** of the injured area will help reduce pain, swelling and bruising by draining fluids from the swollen area. The injured area should be elevated above the heart during ice application and prior to applying compression. Try to elevate the body part every time you are seated.

### RETURN TO NORMAL ACTIVITY

It is important to maintain normal mobility of the injured joint or area during the recovery phase. However, premature return to full activity may slow healing and lead to early re-injury. Undue stress or activity that causes pain should be avoided. Mild temporary discomfort during reconditioning exercise is not uncommon and of little concern. However, moderately severe or persistent pain is a sign that the level of activity is too advanced. The return to full activity should be done on a gradual basis. Minor injuries may require no other treatment than this program. The length of time required for complete healing varies from person to person and with the severity of the injury, but most patients return to normal activity within 4-6 weeks. If the area remains persistently tender or swollen or if you have been instructed to do so, seek follow-up care or re-evaluation of your injury.

### References

“Acute Treatment of Inversion Ankle Sprains: Immobilization versus Functional Treatment.” *Clinical Orthopaedics & Related Research* 455.1(2007): 169-172.

“Managing Sprains and Strains.” *Practice Nurse* 33.5 (2007): 44-49.

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: <http://www.mckinley.illinois.edu>