

## FireFit Footnotes

### The Agony of Injuries

By Bequi Livingston

**M**ore than 2 million adults suffer a sports- or exercise-related injury each year, according to the National Institute of Arthritis and Musculoskeletal and Skin Diseases. In addition, more than 10 million people are seen annually in emergency rooms for injuries suffered while engaged in sports or as a result of working out. According to the Centers for Disease Control and Prevention, sports injuries affect "most active people at one time or another."

The term *sports injuries* usually refers to injuries that involve the musculoskeletal system such as muscles, bones and associated tissues like cartilage and ligaments. A common cause of many such injuries is overusing one part (or many parts) of the body while under using others. Fitness trainers call this "muscle imbalance" or "overuse syndrome." Depending on the injury, treatment takes various forms and is followed by recovery and rehabilitation.

Some of the most common overuse injuries affecting the wildland community include:

- **Sprain:** tears to ligaments that join the end of bones such as ankles, knees and wrists.
- **Strain:** pulls or tears of muscles or tendons, which are the tissues that attach the muscles to the bones.
- **Shin Splints:** pain along the outside front of the lower leg which can result in stress fractures or anterior compartment syndrome if left untreated or unmitigated.
- **Tendonitis:** inflammation of the tendons most often caused by trauma or continued repetition to the connective tissue. If left untreated, tendonitis can eventually lead to a complete rupture of the tendon.

Simple solutions to chronic overuse injuries include the following:

- Maintain a year-round physical fitness regime and adapt it to the needs of the fire season.
- Include in your workout all the essential components of being FireFit: cardiovascular, muscle strength and endurance, flexibility and rest.
- Include a proper warm-up and cool-down in all physical training.
- Perform exercises that include opposing muscle groups; for example, each time you work your abdominal muscles, work the lower back muscles equally.
- When injured, follow RICE: R = Rest; I = Ice; C = Compression; E = Elevation and/or seek medical attention as needed.
- Wear the appropriate shoes for the activity, and be aware of the surface on which you're exercising.

- At the conclusion of the fire season, take appropriate time off to allow your body to rest and recover as needed.



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FireFit provides a Post-Fire Season fitness module that specifically addresses rest, recovery and rehabilitation. The module was developed to mimic an elite athlete's training program that includes time to recover from injury. Wildland firefighters should not discontinue their fitness regime just because fire season is over or they are injured; they just need to address the injuries appropriately and modify their workouts accordingly.

For more on the FireFit Interagency Wildland Firefighter Fitness Program, please visit [www.nifc.gov/firefit/index.htm](http://www.nifc.gov/firefit/index.htm).

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