

Adventist Healthcare: Health Tip of the Week

Exercise - Injury Prevention

More than 10 million sports injuries occur each year. About 95 percent are due to minor trauma involving soft tissue (contusions, sprains and strains) that affects the muscle ligaments and/or tendons. Research has shown that injury rates may be lowered by as much as 25 percent if proper precautions are taken.

Warming-up before exercise or sport is the best way to reduce the risk of injury. Cold joints, tendons, and muscles are more likely to get strained or sprained by sudden movement or exertion. In normal conditions, a five to 10 minute warm up is all you'll need. Add a few extra minutes in colder weather. Warming up sends oxygenated blood to the muscle groups and raises the heart rate. It also speeds up nerve impulses so that reflexes are enhanced.

Your cool down should last several minutes. Cooling down helps to gently return heart rate, breathing, and blood pressure to normal. It also removes waste products (lactic acid) from muscle tissue and helps to reduce the risk of soreness. Stretching should be a part of both your warm up and cool down routines. Only stretch a muscle to the point of mild discomfort.

Finish your cool down with 10 minutes or more of gentle stretches and hold each stretch for around 10 to 30 seconds. This prevents repeat injury to an area and helps micro tears to heal better.

Other Injury Prevention Tips

- Eat a healthy, well-balanced diet to keep muscles strong and to prevent weight gain.
- Don't overdo it. Fatigued muscles do a poor job of protecting their connective tissues.
- Allow at least 24-48 hours for muscles to recover after a strenuous workout. Scientific studies suggest that reducing the number of consecutive days of training can lower the risk of injury.
- Many injuries are caused by weak muscles. Couple resistance training with regular training.
- Studies show that smoking can contribute to back pain and injury.
- Wear shoes that fit properly. Your feet are subjected to nearly one million pounds of pressure during one hour of strenuous exercise.
- While exercising, you can lose between 6-12 ounces of fluid for every 20 minutes of activity. Drink 10-15 ounces of fluid 10-15 minutes prior to starting an activity and every 20-30 minutes during the activity.
- Increase your consumption of carbohydrates during periods of heavy training.

Sources: National Institute of Arthritis and Musculoskeletal and Skin Diseases, American Academy of Orthopaedic Surgeons, Medical College of Wisconsin, Sports Science Institute, The Ultimate Handbook, and Washington and Shady Grove Adventist Hospitals. The Health Tip of the Week is for educational purposes only. For additional information, consult your physician. Please feel free to copy and distribute this health resource.