July 28, 2009

PERSONAL HEALTH

A Twisted Ankle Isn’t Just a Simple Sprain

By JANE E. BRODY

A sprained ankle is one of the most common joint injuries, prompting many people to consider it “just a sprain” and not treat it with the respect it deserves. The too-common consequence of this neglect is a lasting weakness, an unstable joint and repeated sprains.

Given that some 25,000 ankle sprains occur each day in the United States, it is worth knowing how they can be prevented and how they should be treated.

I suffered two memorable ankle sprains, and although I did better with the second than the first, in neither case did I do everything right.

The first occurred 40 years ago when I was nine months pregnant with twins. I twisted my ankle stepping on an uneven surface in my backyard. The pain subsided in a few minutes, and I did nothing about it. Nothing, that is, until it began to swell and throb hours later and I couldn’t walk. I was not a pretty sight hobbling to the doctor using my husband as a crutch.

The second occurred about two decades ago, when I turned my ankle coming down the stairs of a commuter plane. This time the acute pain was so severe I had to be carried into the airport, where a wheelchair and ice packs were provided. On my connecting four-hour flight, I was given a three-seat row where I could keep my ankle elevated and periodically iced. I slept that night with the pillows under my foot. The next morning, the pain was gone and I went jogging.

The two mistakes: My first injury should have been treated immediately, with rest, ice and elevation and an elastic bandage to keep down the swelling; with the second, I had no business running on that ankle less than 12 hours after the injury.

No Quick Fix

I now know that I was lucky not to have ended up with a chronically unstable ankle after either of these episodes. Ankle sprains are so often mistreated or not treated at all, experts say, that they have the highest recurrence rate of any joint injury and often result in chronic symptoms.

Last month at the National Athletic Trainers’ Association annual meeting in San Antonio, experts responsible for the ankle health of college athletes reviewed research evidence for various methods believed to help prevent recurrent ankle sprains. I suspect that few athletes, whether professional, intramural or recreational, will like the bottom line: ankle sprains usually need more rehabilitation and take longer to heal than most people allow for.

Undertreatment means that “30 to 40 percent of people with simple ankle sprains develop chronic long-term joint pathology,” said one presenter, Tricia Hubbard, the undergraduate athletic training director at the University of North Carolina in Charlotte.

“Most research is showing that with any ankle sprain, the ankle should be immediately immobilized to protect the joint and allow the injured ligaments to heal,” Dr. Hubbard said in an interview. “At least a week for the simplest sprain, 10 to 14 days for a moderate sprain and four to six weeks for more severe sprains.”

Yet coaches, like most people, she said, “tend to think, ‘It’s just a sprain, you’ll be fine’ and they tape the ankle and ice it and the player is back on the field in a few days.”

Of course, players want to play, whatever their level, so they rarely question the wisdom of such a quick turnaround.

“Lack of pain is not always the best indicator that it’s safe to resume activity,” Dr. Hubbard said. “The pain of an ankle sprain can subside fairly quickly, but that does not mean the injured ligaments have healed.”

A Vulnerable Joint

The ankle, which joins the lower leg bones to the foot, is held together by bands of elastic fibers called ligaments. A sprain results when one or more ligaments is stretched beyond its normal range. In a severe sprain, the elastic fibers tear partly or completely.

Sprains occur when the foot turns in or out to an abnormal degree relative to the ankle. Common causes include stepping up or down on an uneven surface, particularly when wearing shoes with platform soles or high heels; stepping wrong off a curb or into a hole; or stepping on an object left in the wrong place.

In athletics, common causes include coming down wrong after a jump shot or rebound; stepping on another player’s foot; and having to make quick directional changes, as in tennis, basketball, football and soccer.

As with other such injuries, the recommended first aid for an ankle sprain, to be started as soon as possible after the injury, goes by the acronym RICE:

R for rest, I for ice, C for compression, E for elevation. In other words, get off the foot, wrap it in an Ace-type bandage, raise it higher than the heart and ice it with a cloth-wrapped ice pack applied for 20 minutes once every hour (longer application can cause tissue damage).
This should soon be followed by a visit to a doctor, physical therapist or professional trainer, who should prescribe a period of immobilization of the ankle and rehabilitation exercises. An anti-inflammatory drug may be recommended and crutches provided for a few days, especially if the ankle is too painful to bear weight.

**The Healing Process**

Immobilization using a brace or cast provides ligaments with the rest they need to heal and reduces the risk of aggravating the injury. Even a complete ligament tear can heal without surgery through proper immobilization. But immobilization should not be overdone and must be followed in a week by exercises that prevent muscle atrophy and stiffness.

During healing, Dr. Hubbard said, “new tissues are laid down, and they need to be aligned with the action of the joint” through proper exercise.

Rehabilitation should include range-of-motion and stretching exercises, strength training and balance training.

Dr. Hubbard said studies had shown that one of the most effective immobilizers is the AirCast Air-Stirrup ankle brace. This inexpensive half-pound device limits motion but can be removed for needed exercises.

Even after an injury has healed, an athlete’s ankle often needs extra protection during physical activities. Studies reviewed by Jay Hertel, an athletic trainer at the University of Virginia, showed that wearing a lace-up ankle brace was more effective than taping the ankle in preventing reinjury.

Of course, preventing injury in the first place is ideal. Athletic trainers emphasize the importance of wearing proper shoes for your chosen activity — shoes that are comfortable, supportive and not worn out.

Dr. Hubbard says women should be very careful in high heels or platform shoes, which she called “an ankle sprain waiting to happen.”