Ankle sprains continue to be the most common musculoskeletal injury. As an athletic trainer, it is likely you have treated and rehabilitated many ankle sprains. I have always said that the high percentage of initial ankle sprains isn’t what we, as athletic trainers, need to be concerned about; instead, it is the high percentage of those who go on and suffer repetitive sprains and long-term symptoms. These patients are typically classified as having chronic ankle instability. We know that these patients with chronic ankle instability go on to develop ankle osteoarthritis; therefore, the initial ankle sprain that is often looked at as being “no big deal” or something that athletes can “walk off” or that will only cause athletes to “miss one game” can lead to significant long-term health issues.

When someone hears the term “ankle sprain,” it is not typically associated with a public health concern (with the exception of us ankle injury researchers!). Concussions and anterior cruciate ligament injuries are more often the “sexier” terms that coincide with public health concerns. However, ankle sprains should be considered right alongside these other injuries because patients who have a history of ankle sprains are less physically active than those who do not.

Intuitively, this should make sense. Your athlete sprains his or her ankle and, like most athletes, does not think it is a big deal and returns to activity right away. The ligaments do not heal appropriately, changes in neuromuscular control occur, and the athlete ends up re-spraining the same ankle 6 months later. Now the athlete suffers feelings of the ankle “giving way,” the ankle feels unstable when the athlete cuts or turns, and it hurts, sometimes swelling up. Over time, these symptoms lead to the avoidance of physical activity. Why do something (walk, run, or exercise) if your ankle hurts when you do it?

Research has demonstrated that college-aged students with chronic ankle instability are significantly less physically active than healthy patients. After an acute ankle sprain in a mouse model (yes, mice have the same ankle ligament structures as us humans), the mice ran significantly less across their entire lifespans. Research continues to show that ankle sprains can lead to decreased physical activity, which is a public health concern. Physical inactivity is one of the leading risk factors for death worldwide and can contribute to the development of cardiovascular diseases, certain cancers, and type 2 diabetes. So, yes, a patient can sprain his or her ankle and develop chronic ankle instability that leads to decreased physical activity, which could in turn lead to the development of a disease, including cancer!
So what does this mean for athletic trainers and other sports health care professionals? First, we need to make sure we appropriately manage ankle sprains (see below). Next, we need to help patients who have chronic ankle instability improve their symptoms (balance and neuromuscular control training programs have been shown to help patients with chronic ankle instability). Finally and most importantly, we need to talk to our patients about their physical activity levels and how to meet physical activity goals. Maybe they need to change how they exercise to put less stress on the ankle (to minimize symptoms) while remaining physically active. For example, the avid runner or basketball player can turn to alternative activities like cycling or swimming.

Maintaining physical activity across the lifespan is critical to sustaining long-term health. More and more youth are participating in sports, which is terrific; however, the chances of injury will also increase. The pressure to perform and return to activity quickly is not going away. We as clinicians need to do our best to appropriately treat ankle sprains and prevent the development of chronic ankle instability and ankle osteoarthritis. We also need to identify those who have chronic ankle instability, try to rehabilitate them, and have conversations about exercise and physical activity and how patients can maintain their level of activity across their lifespan.

Ankle sprains are a musculoskeletal injury and need to be treated as such; if not, they become a huge public health burden in the long term and, through decreased physical activity levels, may even lead to certain types of cancer.

Based on the research, here is what we as athletic trainers need to do to best help our patients who suffer from an ankle sprain:

1. Educate! It is not “just an ankle sprain.” The ligaments of the ankle need time to heal just like the ligaments of the knee, shoulder, or elbow.
2. Ensure proper initial management, including immobilization (something more rigid than an ace wrap), use of crutches if the athlete has a limp, and rest, thus allowing the healing cycle to begin.
3. Begin controlled exercises. Within a few days, begin motion and strengthening as pain allows.
4. Ensure the patient goes through a proper progression of balance and neuromuscular control exercises.
5. Return to play when the ankle/body is ready, not when the patients or coaches feel that they are ready! That may mean the athlete misses a few weeks of play, but may also prevent the development of long-term issues by doing so.

REFERENCES