Obesity nearly doubles the odds of a patient having the most severe category of ankle fracture, according to research published in a recent issue of the American College of Foot and Ankle Surgeons’ Journal of Foot and Ankle Surgery (JFAS).

The study, which was conducted among 280 patients, explored the association between obesity and severity of ankle fractures. It analyzed the X-rays of each patient’s ankle fracture and classified the severity of each one. Body mass index (BMI), age, diabetes, tobacco use, osteoporosis, sex and age were then assessed alongside each patient’s ankle fracture classification. The study attests that being overweight or obese is associated with an increased risk of musculoskeletal problems; specifically in this case, increased risk of having a severe ankle fracture. The increase in weight can have grave effects on the bone and joints, increasing the risk of osteoarthritis and (potentially) the need for total joint replacement at a younger age.

Continued next page...
Obesity (classified as BMI of 30 kg/m$^2$ or greater) is becoming more prevalent in America and so are musculoskeletal issues associated with it. The healthy ankle joint allows for normal walking, and injuries to the joint, including fractures, can have devastating effects if not properly addressed. The recent study identified a correlation between more severe ankle fractures and obesity, especially for obese men younger than 25, and obese women older than 50.

Alan MacGill, DPM, AACFAS, a Florida foot and ankle surgeon and Associate Member of the American College of Foot and Ankle Surgeons, says, “We are seeing more severe injury patterns in the obese population compared to the non-obese. These severe ankle fractures tend to have a worse prognostic outcome compared to others.”

This is likely due to the fact that severe ankle fractures tend to be higher in the fibula, above the level of the ankle joint. The twisting motion of the injury not only breaks the bone but also tears the ligaments that hold the lower leg bones (fibula and tibia) together for stability of the ankle joint.

Dr. MacGill adds, “The findings of this study correlate with what I continue to see in my practice. It’s basic physics; as body mass increases, so does the kinetic energy associated with the injury. The higher the body mass, the greater the risk of more severe ankle injury.”

There’s not much that can be done to prevent these types of injuries, as ankle fractures cannot be predicted. But bearing the results of this study, this is yet another reason to maintain a healthy diet, exercise plan and body weight to possibly help decrease the likelihood of an ankle injury being more severe.

The ankle is a relatively small joint that bears much more force than the knee or hip. Fractures of any sort that disrupt the integrity of the ankle can have devastating consequences, such as ankle instability, post-traumatic arthritis, and chronic joint pain, especially in those who are overweight. Because of the complexity of the joint, it’s important to have these and any other ankle injuries evaluated by a foot and ankle surgeon.