

Boswell patient takes a big step toward a second chance at life

Mesa man first in Arizona to receive 3D printed ankle bone replacement



SUN CITY, Ariz. (July 24, 2019) – At just 35 years of age, Elliot Munro of Mesa, Ariz. was faced with the prospect of losing his right foot due to complications resulting from his years-long battle with leukemia.

Munro was first diagnosed with leukemia at the age of 11 and dealt with a reoccurrence at the age of 16, when he had two bone marrow transplants and was given steroids to help sustain him through the treatments. Those steroids led to bone issues several years later when, at 24, his joints began to give him severe, intolerable pain.

Munro was diagnosed with osteonecrosis, a serious condition caused by his bone tissue being starved of blood. The lack of blood causes the bone to break down at a rate faster than the body can replace it. The condition went on to affect his hips, knees, and ankles.

In October 2018, Munro was hospitalized for severe pain in his right ankle caused by a deteriorating talus bone in his ankle. The talus connects the lower leg and foot and is crucial for foot and ankle mobility.

Traditional remedies, including ankle fusion or replacement, were not an option in Munro’s case. Amputation was an option, but the young father worried how that might affect his ability to run and play with his four young children.

That’s when his physician, Dr. Jeffrey Holmes, a foot and ankle surgeon with the Banner CORE Center for Orthopedics at Banner Boswell Medical Center, presented another option: replacing his severely damaged talus bone with an artificial one carved from titanium using a 3D printer. After it is “printed,” the implant is coated with a special titanium nitride coating to aid in articulation.

“Elliot had been battling life-long challenges where we wanted to seek alternative options for him,” said Dr. Holmes.

The surgery was successfully performed on March 19 and he is currently completing physical therapy.

“I just never thought I would be able to walk again, let alone be able to play catch with my kids,” said Elliot. “This truly has been life changing and I cannot thank Dr. Holmes and his team enough for what they did for me and my family.”

After a few months post-surgery, Munro was walking with a special boot that was used to help him heal. Thanks to the full recovery, Munro is now walking in normal shoes with no brace and is pain free most of the day. More importantly, Munro will now be able to spend time with his kids, creating memories that will last a lifetime.

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