

## **BroadcastMed | Total Talus replacement**

---

So the procedure that we performed is called a total talus replacement.

And the reason why we did a total talus replacement is that the patient's talus unfortunately died.

And we had to replace the bone.

There were no other options besides fusing her ankle and her subtalar joint.

Therefore, if we were to have fused it, she would have had no motion.

This new implant allows her to walk normally and have as much motion as she possibly has.

The reason why someone should come to MUSC for this type of procedure is that we are at the cutting edge and leading in technology in terms of foot and ankle orthopedic procedures.

So this type of procedure is perfect for people with talar osteonecrosis or avascular necrosis of the talus.

Basically what this means is that the talus has died because they have either trauma or blood flow issues, like after chronic steroid use, to the talus.

And once the talus starts to collapse, the bone actually starts to collapse and develop a little bit of arthritis in the ankle or the subtalar joint, then there's really no other option for the patient except to fuse the ankle and the subtalar joint at the same time.

In doing a total talus replacement, we bypass the need to make the patient non-weight bearer for 12 weeks.

And we also bypass the need for limited mobility for the rest of their life.

This allows patients, in an easy way, to get back to sport activity and normal walking without pain.

So after sterilely prepping the patient, we make an incision on the front of the ankle.

And we're very careful to dissect between the neurovascular structures that could be damaged.

Once we get down to the ankle, we incise into the ankle joint itself and inspect the ankle.

Once we determine that the bone is in fact diseased and damaged enough to need surgery, we remove the bone with knives and chisels.

And we remove it piecemeal.

After we remove the talus piecemeal, we then put in a fake plastic talus.

And once we take x-rays of that talus demonstrating that it's in the appropriate position, and after making sure that the ankle is stable enough, we then replace that copy of the talus with the real implant, which is made of cobalt chromium.

After we ensure that the cobalt chromium does fit into the ankle and that the talus replacement is in fact secure, we then close up the ankle.

After we close the incision, we put the patient into a cast.

We do not allow them to weight bear for two weeks.

At two weeks, we take out the stitches and get the patient into a walking boot, so they're walking two weeks after this procedure.

What is innovative about this procedure is it allows full range of motion at the ankle after the procedure.

There's no fusion.

There's no limited weight bearing.

There is as much activity as the patient can handle at very early on in post-operative periods.

In the United States, we have very limited studies on how long these will last, unfortunately.

I did publish, along with my mentor, a close follow-up study of these implants.

And they all did very well, about 95% success rate at two years.

There are larger studies in Asia, which have 30 and 35 year follow-up where they actually do about 90% well.