Total Talus Replacement (3D-Printed Custom Implant)

3D-Printed Custom Implants

Total Talus Replacement
– Source: Paragon28®

What Is a Total Talus Replacement?

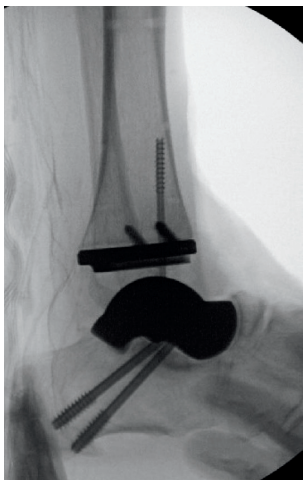
In this procedure, the entire talus bone is replaced with a custom 3D-printed implant designed to closely match your anatomy.

- The implant is typically made of cobalt-chromium alloy, a strong, biocompatible metal widely used in orthopedic implants.
- It is often combined with procedures such as replacement of the bottom of the tibia or fusion of the subtalar joint to add stability.
- In some cases, the surgery is performed in stages due to its complexity.

Why This Procedure?

- **Patients considered for a total talus replacement often have very limited options left** due to bone collapse, avascular necrosis (AVN), or failed prior replacements.
- **This surgery can be a limb-saving option, providing pain relief and preserving ankle motion** when fusion or even amputation might otherwise be necessary.

Pre-op lateral view



Post-op lateral view

Special Surgical Approach

This surgery is performed through a modified anterior approach to the ankle, using advanced orthoplastic techniques to reduce scar tissue and protect soft tissues. This method may lower complication risk compared to older techniques.

Recovery Timeline

Your recovery is gradual and structured to protect your new joint:

Weeks 0–6/8
Strict non-weight-bearing in a splint or cast while soft tissues and bone heal.

Weeks 6/8–10/12
Begin progressive weight-bearing in a CAM boot, with initiation of physical therapy.

Months 3–12
Gradual transition to normal shoe gear with bracing, continued strengthening and mobility training.

Full recovery typically takes up to 1 year.

Questions

If you are considering a total talus replacement, please discuss with your surgeon whether this is the right option for you. Our goal is to help you understand both the potential benefits and serious risks so you can make an informed decision.

Risks and Considerations

It's important to understand:
This is not yet a gold-standard, widely established procedure. Research shows promising results, but long-term outcomes are still being studied.