Great toe implants are very popular in Europe and is some circles in the USA, but is for sure no universally adopted as a primary option due to the high failure rate.

Uni-replacements are easier to salvage, but most of the bipolar replacements leave a very large gap, with a sclerotic, avascular rim of bone in the phalanges and metatarsal.

There are several articles looking at conversion to fusion with reasonable results, but it is never as simple as it sounds.

Unipolar implants in the proximal phalanges are the simplest to salvage. There is minimal bone loss, and a simple, in situ fusion could be done.

Unipolar metatarsal and bipolar implants leave large gaps, and significant shortening of the 1st MT. Fusing the MTPJ short more than 1cm will lead to lesser MT overload, so best to fill, at least part, of the defect. I prefer autologous graft from the iliac crest (sometimes from the calcaneus). Plate and screw fixation is better than cross screws. Always remember to fuse in at least 15 degrees DF.

I have low threshold to add a bone growth stimulant and/or external stimulant.

There is some literature support for removal of the implant and an interpositional graft, but it does not work well in my hands.

**Literature worth reading.**

1) Garras DN(1), Durinka JB, Bercik M, Miller AG, Raikin SM. Conversion arthrodesis for failed first metatarsophalangeal joint hemiarthroplasty. Foot Ankle Int. 2013 Sep;34(9):1227-32

