Advantages and Disadvantages of Using Stemless Implants for Total Shoulder Arthroplasty

Stemless implants have shown promise in total shoulder arthroplasty but surgeons should weigh the advantages and disadvantages.

Advantages:
- Greater bone preservation
- Low stress shielding
- Decreased surgical time
- Low risk of diaphyseal stress riser
- Low intraoperative blood loss

Disadvantages:
- Possible increased cost
- Dependence on proximal bone quality
- Concerns regarding lesser tuberosity osteotomies
- Lack of convertible platform to reverse total shoulder
- Multiple new implants without medium- or long-term data

Limitations of current research:
- Clinical outcomes so far have been based on short-to medium-term data
- Mixed methodology between various studies make results difficult to compare
- Unknown ideal stemless biomechanical design

While further long-term studies are required, stemless implants appear to be a favorable option for TSA in terms of short-term clinical and radiologic outcomes.