Surgical Technique for the Removal of Well-Fixed Metaphyseal Cones in Revision Total Knee Arthroplasty

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Removal of well-fixed components during revision total knee arthroplasty is a challenge and is more complicated in patients with revision components. Porous tantalum cones are widely used in patients who undergo revision for extensive bone loss because of reliable osseointegration; however, certain patients may require the removal of these well-ingrown tantalum cones. This is particularly challenging for several reasons: limited access to metaphyseal bone, osseointegration of the external surface of the cone with host bone, and removal of the cemented interface with stemmed components along the internal surface of the cone. Use of extensive force or improper technique may result in considerable bone loss or periprosthetic fractures that may compromise future reconstruction. This video demonstrates a surgical technique that allows for safe removal of well-fixed tantalum cones with minimal bone loss.