



**Title**

**FIBROUS TISSUE INGROWTH AND ATTACHMENT TO POROUS TANTALUM**

**Authors**

Hacking SA, Bobynd JD, Toh KK, Tanzer M, Krygier JJ

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**Purpose/Premise**

This article reports on a study that was conducted to determine the extent of soft tissue ingrowth and the strength of soft tissue attachment to a porous tantalum biomaterial.

**Material and Methods**

Eight canine implants were performed, with follow-up retrievals at 4, 8, and 16 weeks. The implants were then retrieved and subjected to a peel test.

**Outcomes**

At retrieval, all of the implants were surrounded by soft tissue that adhered to the implants. The attachment strength was 61g/mm at 4 weeks, 71g/mm at 8 weeks, and 89g/mm at 16 weeks. Histological analysis showed complete tissue ingrowth with visible blood vessels. The tissue attachment strength to porous tantalum was three to six times that reported in similar studies with beaded surfaces.

**Conclusion/Recommendation**

The authors conclude that rapid ingrowth of vascularized tissue occurs with porous tantalum, and that the tissue attachment strength is greater than that with beaded surfaces.

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