An innovative approach to space maintenance.
Machined — not metal.
Exactech’s precision-machined cortical allograft bone pin for dental surgical procedures is easy-to-prepare, easy-to-use and comes pre-formed to exact specifications the surgeon can rely on time after time.

Historically, titanium screws have been used in dentistry as a means of maintaining space and preventing membrane collapse at a newly grafted site. Often, the need to retrieve the screw after bone regeneration leads to the recreation of a bony defect. In dental procedures, cortical bone pins have been used in the same way to maintain space and provide stability in the grafted site. Studies show that once placed, a cortical bone pin will remodel along with the newly placed graft.

Cortical bone pins have been used in orthopaedic surgical procedures such as bunionectomies as well as dental procedures such as ridge augmentations and socket preservation.

Cortical Allograft Bone Pin

- Processed through the BioCleanse® process, lyophilized and terminally sterilized to SAL 10^-6
- Store at 1-37°C (33-98.6°F)
- Machined from dense cortical bone to provide a smooth and consistent shape. Additional shaping is at the discretion of a licensed clinician.
- Hydrate with sterile saline for a minimum of 30 seconds prior to implantation.
- Packaged two pins to a sterile pouch
- 2mm x 17mm

Mechanical Properties

A double-lap shear test was performed on two groups of 2mm pins to determine the resistance of the pins to shear loading. Both groups were freeze-dried and irradiated; however, only Group 2 had been reconstituted in saline for one hour. Group 1 had a mean shear strength of 323 N while Group 2 had a shear strength of 447 N.

Suggested Bone Pin Preparation Technique

- Hydrate pin according to IFU
- Trim bone pin to defect or surgical length required (diamond bur or disc)
- Prepare osseous site with a 1.5mm bur, 2mm deep
- Widen the site with a 2mm bur, 0.5mm-1mm deep
- Insert end of bone pin into osseous preparation until binding occurs
  – Preserve when possible the machine-rounded bone pin end to place next to flap/tissue

References

4. Photo courtesy of Wilkie J. Stadeker, DDS.
5. Photo courtesy of Robert Horowitz, DDS.
6. Photo courtesy of Jeffrey Lemler, DDS.
8. Data on file at RTI Biologics, Inc.