OsteoGen[®]**Plug**







ONE STEP BONE GRAFTING SOLUTION: SOCKET PRESERVATION WITHOUT THE NEED FOR A MEMBRANE





OSTEOGEN® NON-CERAMIC BIOACTIVE RESORBABLE CALCIUM APATITE BONE GRAFT

TYPE I BOVINE ACHILLES **TENDON COLLAGEN**

KEY BENEFITS

- The OsteoGen[®] Bone Grafting Plug is an easy and affordable way to clinically deliver bone graft. It's mainly used for ridge maintenance and socket preservation.
- The idea is simple: a collagen plug is filled with OsteoGen[®] non-ceramic bone graft crystals. This creates the OsteoGen[®] Bone Grafting Plug.
- The result is a bone graft combined with a collagen plug for ease of clinical delivery-without the need for a membrane.
- The OsteoGen[®] Bone Grafting Plug combines Bioactive Resorbable Calcium Apatite with a bovine Achilles tendon collagen matrix. This creates a structure that mimics the organic and inorganic components of physiologic bone.
- OsteoGen® is a bioactive and resorbable calcium apatite-based bone graft. It is physiochemically and crystallographically similar to human bone.1
- The OsteoGen[®] non-ceramic production process yields a resorbable bone graft with a unique Ca:P ratio. It is NOT a β-TCP and NOT a non-resorbable dense ceramic HA (nor is it a biphasic mixture of the two).
- The Bovine Achilles Tendon collagen carries the bone graft for easy and efficient delivery to the site. Thus, the hassle and time spent mixing and packing particulate bone grafts is eliminated—and so is the potential for particulate wash out.
- The Type I collagen acts as a wound dressing—not only to stabilize the clot, but also to absorb and deliver blood flow to the slowly resorbing graft (a feature critical for the initiation of bone formation and early angiogenesis).
- The collagen found in the OsteoGen[®] Plug provides a scaffold for keratinized tissue to develop over the grafted site.
- The OsteoGen[®] Bone Grafting Plug will show radiolucent on the day of placement. It becomes radiopaque in 3-5 months when it has been replaced with host bone. Implant placement can then be achieved.

STEPS TO SUCCESS



Extract tooth and thoroughly debride site in order to increase the healing capacity of the affected tissues²



Insert OsteoGen[®] Plug to deliver bone graft and absorb blood flow. This will stabilize the clot and initiate early bone formation and angiogenesis



Approximate tissue and crisscross suture over top to keep OsteoGen[®] Bone Grafting Plug in place. There is no need to use a membrane to cover.

While OsteoGen® Plug

developing tissue

resorbs, the OsteoGen[®] bone

graft crystals offer a slowly

resorbing bioactive scaffold

for bone formation while the

collagen provides a scaffold for





The OsteoGen[®] crystals resorb over 3–5 months (patient specific) and will turn from radiolucent to radiopaquewhich indicates sufficient bone formation

CLINICAL APPLICATIONS

Tooth 12. set to be extracted.



The surgical site was initially debrided to induce bleeding and establish the Regional Acceleratory Phenomenon.



Insert appropriately sized OsteoGen[®] Bone Grafting Plugs and allow blood to absorb.



When OsteoGen® Plugs are in place, suture over top of socket to contain. No membrane is required.



OsteoGen® is a low density bone graft and the OsteoGen® Plugs will show radiolucent on the day of placement.



As the OsteoGen® crystals are resorbed and replaced by host bone, the site will become radiopaque.



The collagen promotes keratinized soft tissue coverage over the graft.



Solid bone is seen upon reentry prior to implant placement. In this image, a core sample was retrieved.





Implant is placed. Note the histology below showing mature osteocytes in lamellar bone formation.

Some of the larger OsteoGen® crystals and clusters are slowly resorbing. Bioactivity is demonstrated by the high bone to crystal contact absent of any fibrous tissue encapsulation.³⁻⁴