

## Sutureless Socket Membranes with Oral Bond™

In an effort to better understand single tooth implant replacement and gingival esthetics, we evaluated a number of variables that can affect gingival esthetics. The one surprising negative influencer was suturing.

Suturing is a necessary evil to properly close and secure a surgical wound. It is time consuming, requires considerable skill, compresses the tissue restricting blood flow, and distorts the normal anatomy of the gingiva. In addition, sutures can be more irritating to the patient than the surgery and induces significant inflammation over time. We have found that suturing has a significant negative effect on gingival esthetics and will now present a case that reflects our findings to demonstrate how you can streamline your surgeries by using an adhesive to secure your membranes and produce additional gingival tissues rather than recession.



Failing #4



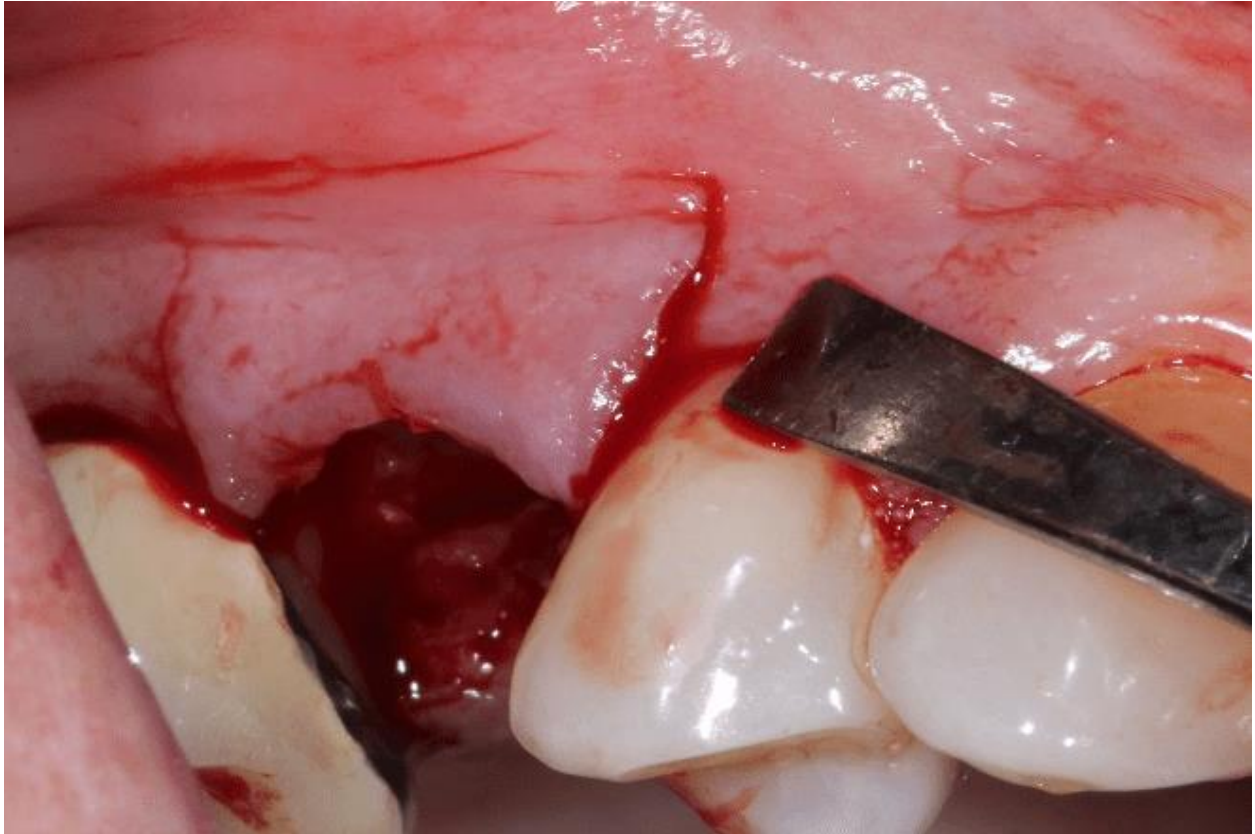
Failing #4 with pneumatized sinus



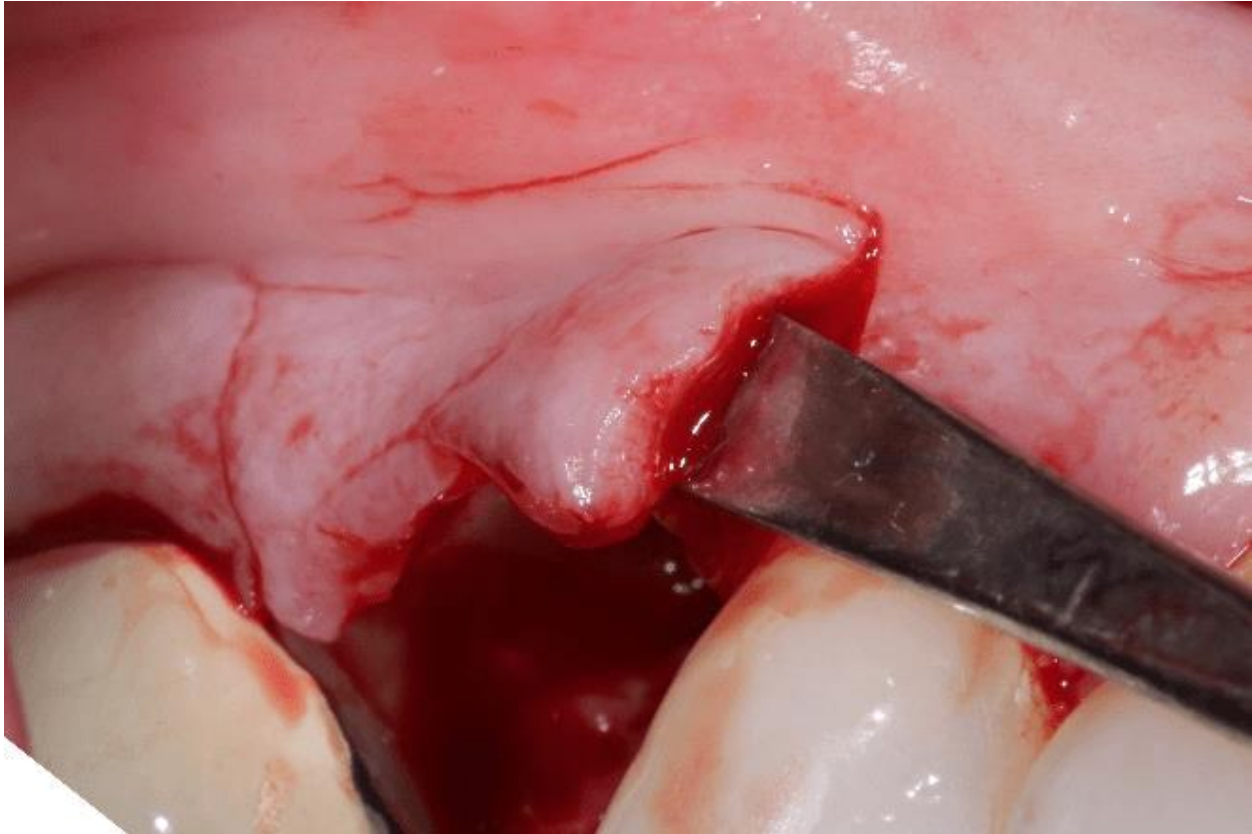
No sectioning is planned, so the incisions can be made prior to extraction. The incisions are only into the attached gingiva.



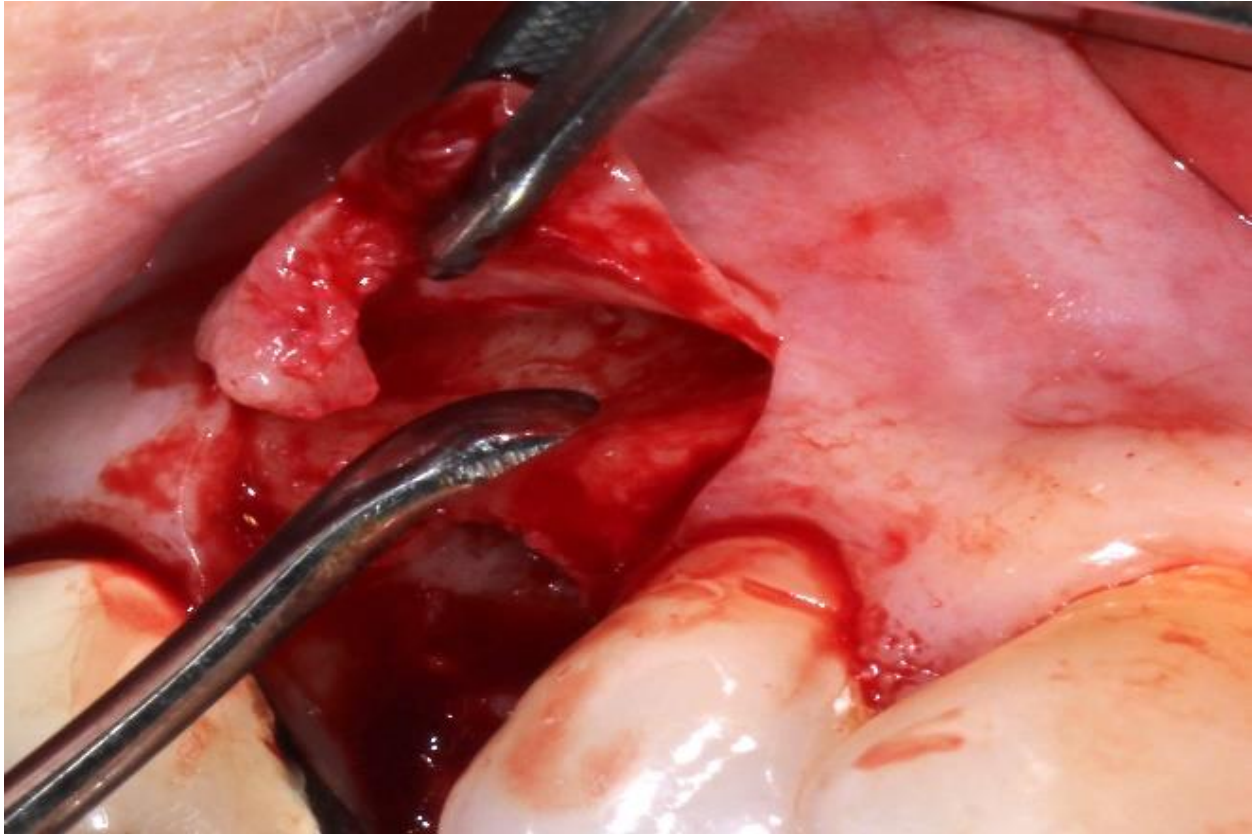
The incisions are made at the line angles of the adjacent teeth. The incisions stop at the mucogingival junction.



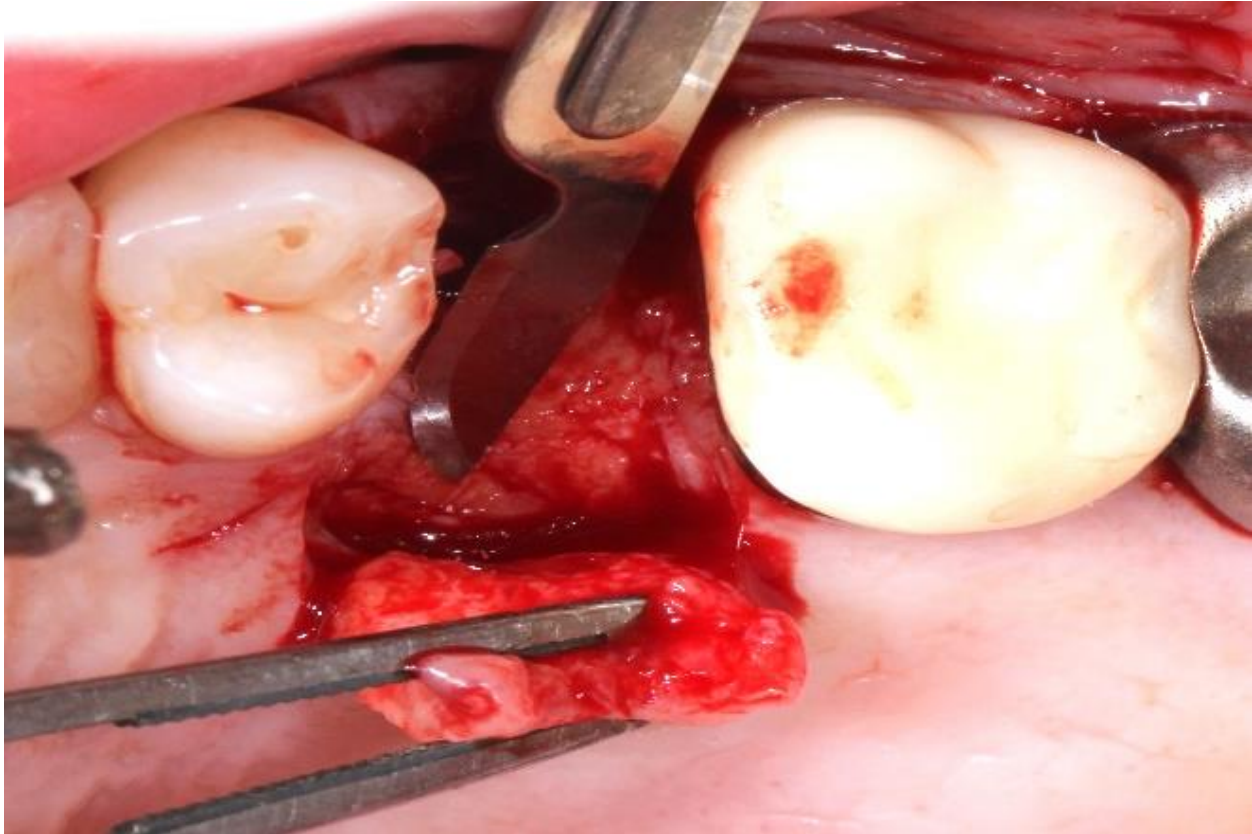
A sharp dissection results in less trauma to the gingival and less post-operative inflammation.



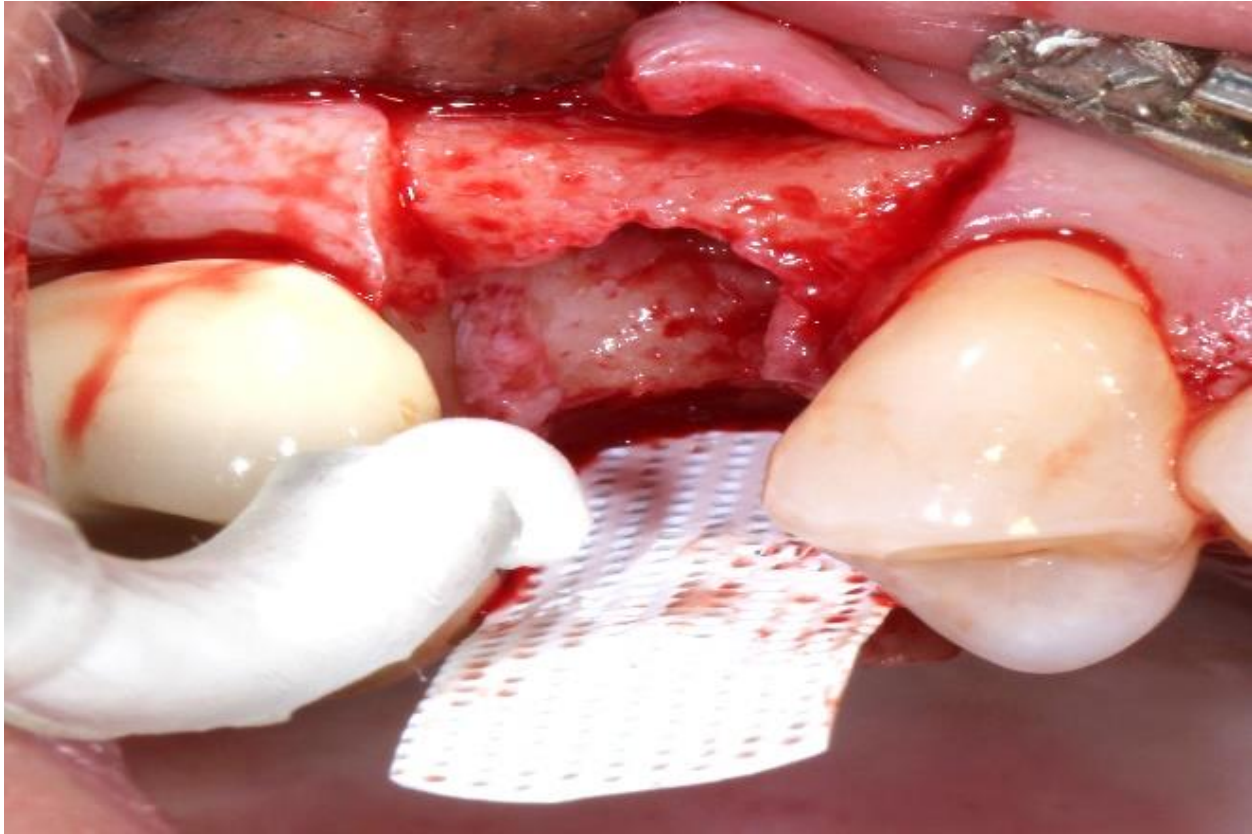
The attached gingiva is raised to the mucogingival junction where the attached gingiva meets the periosteum.



The periosteum is dissected off the alveolus with a full thickness flap extending from incision to incision creating a pouch for the membrane.

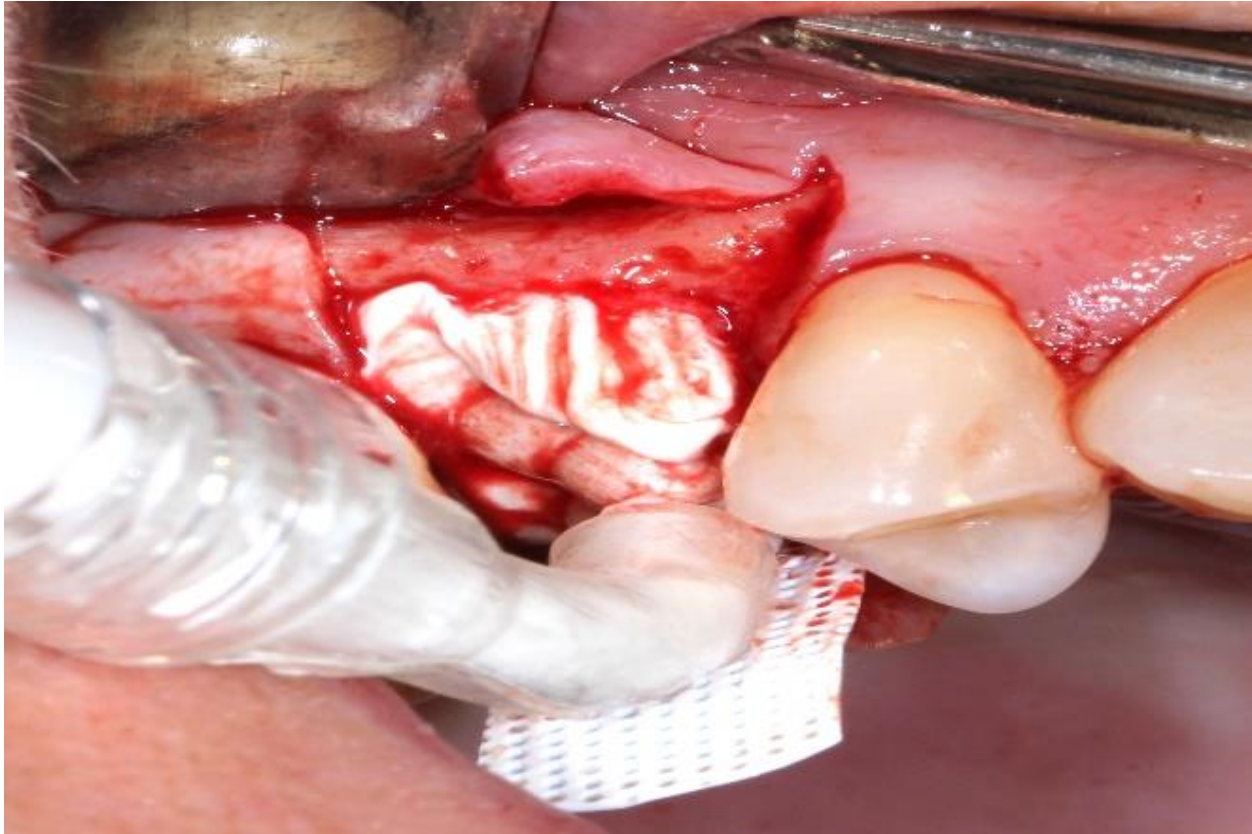


The palate is often difficult to prepare for retaining the membrane due to the thickness and toughness of the palatal tissue. However, a surgical dissection makes this a simple easy quick procedure. Enter into one of the palatal incisions and incise a split thickness flap that connects both incision lines. The periosteum is left on the bone and not disturbed. Care is taken to go deep into the palatal thickness and not compromise the vascular supply of the flap. A simple quick incision creates the pocket for the membrane.

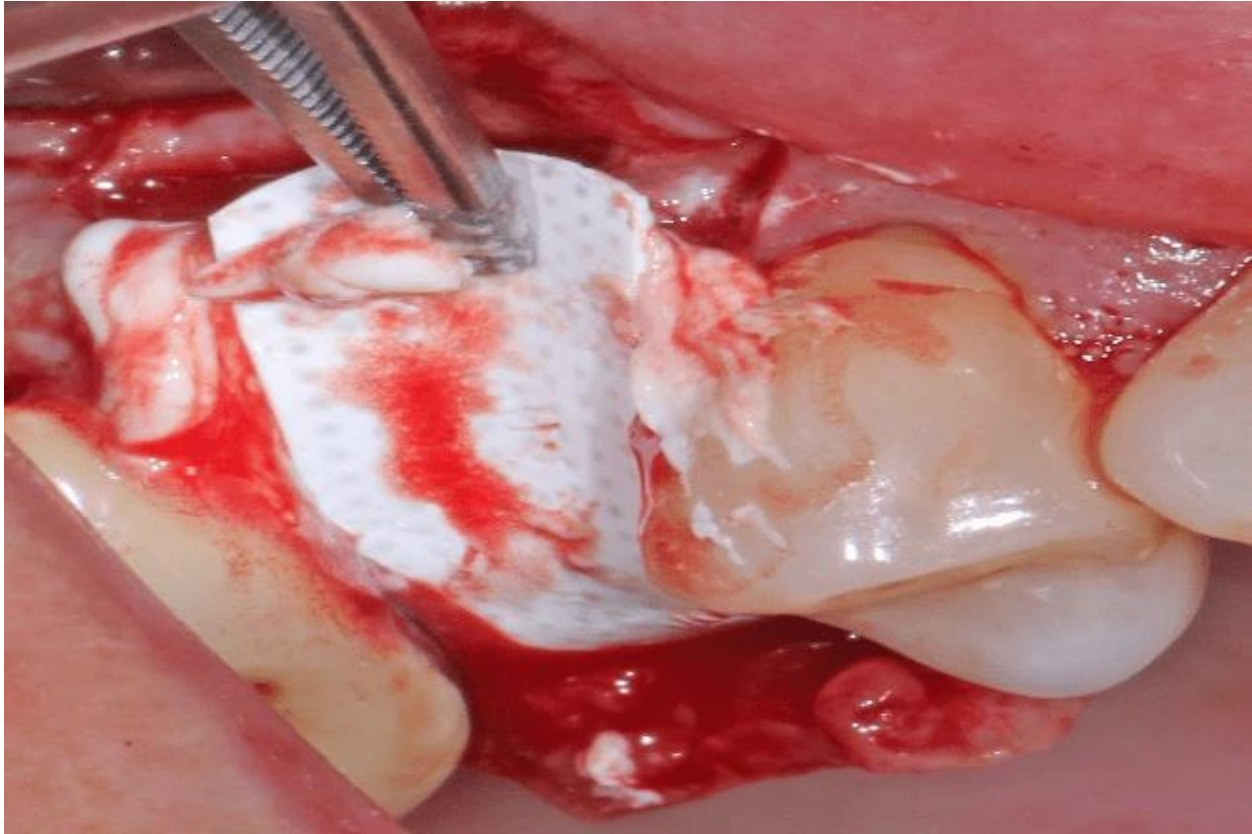


In order to protect the socket from saliva, place the membrane into the lingual pocket before grafting. The bone graft of choice for this procedure is [Socket Graft Injectable™](#) because the socket is intact.





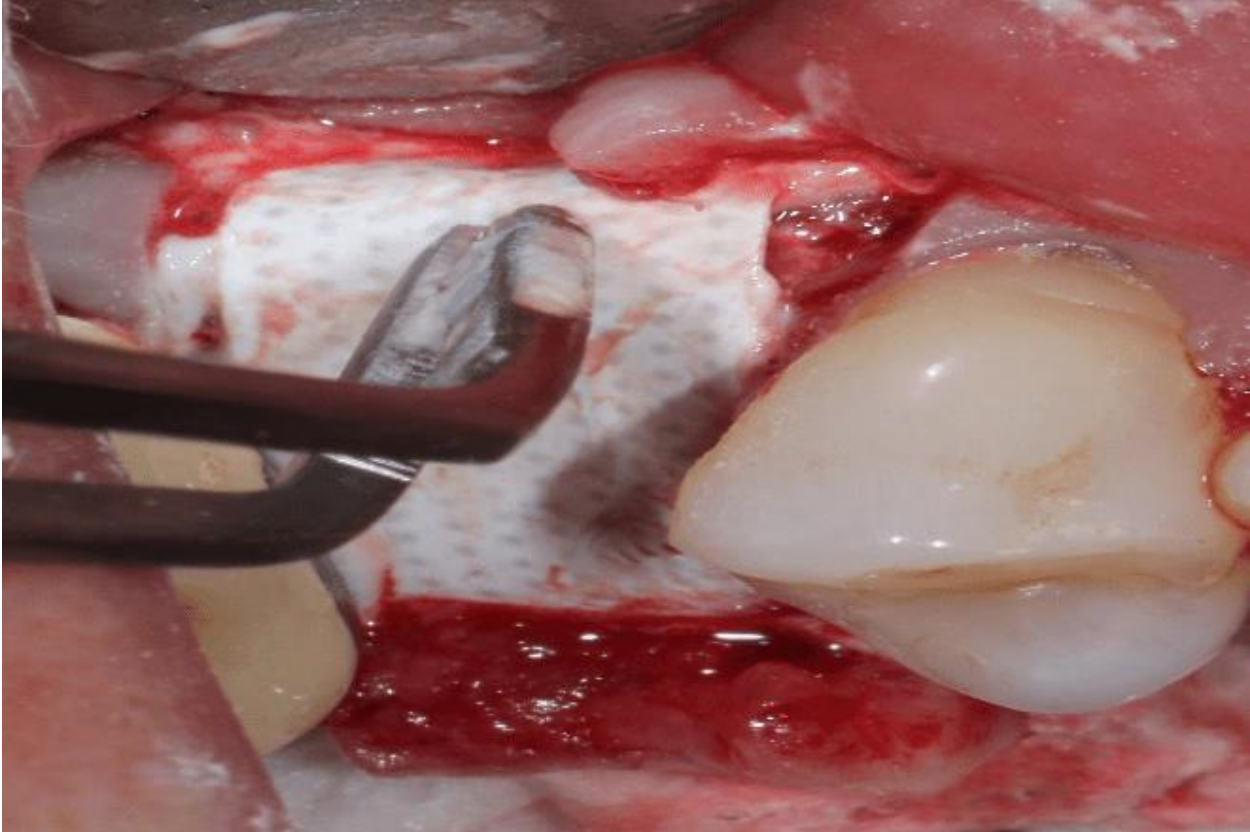
When applying Socket Graft Injectable™, inject from the apex towards the gingival margin and slightly overfill the socket.



Use a broad spatula to compress the graft material or simply lay the membrane over the graft material and allow the excess graft material to be squeezed out around the membrane. This material does not require packing.



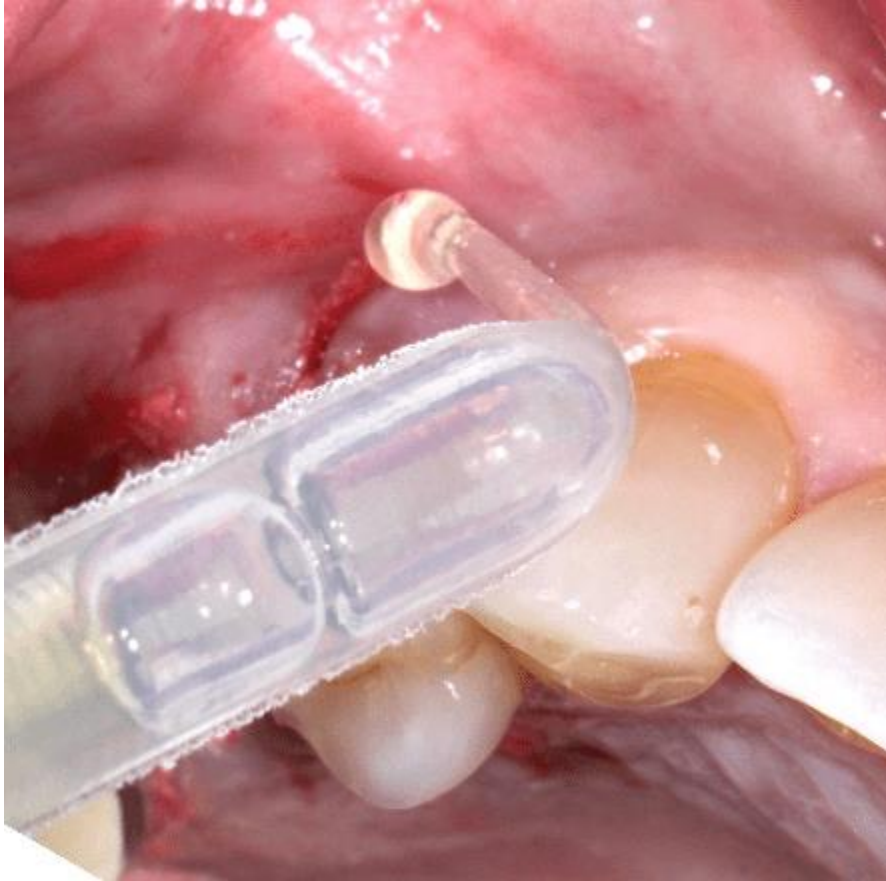
Apply gauze to form the membrane over the socket.



Tuck the membrane under the buccal flap.



Compress the flaps and the membrane. Due to the micro-surgical incisions, the flaps will lay back down naturally over the membrane unlike traditionally tearing the tissues from the bone.



**Oral Bond™** is applied with a pre-bent tip pipette allowing for ease of application. I prefer to glue the 4 incision lines first. Make sure to pack the the vestibule and palate with gauze to catch any Oral Bond™ that may run off the site of application.



After the 4 incision lines have been glued, the margins of the flap and the exposed portion of the membrane are covered with Oral Bond™. The setting time of Oral Bond™ allows time for placement and manipulation of the process.



I use a spatula to “seat” the gingival margins of the flap.





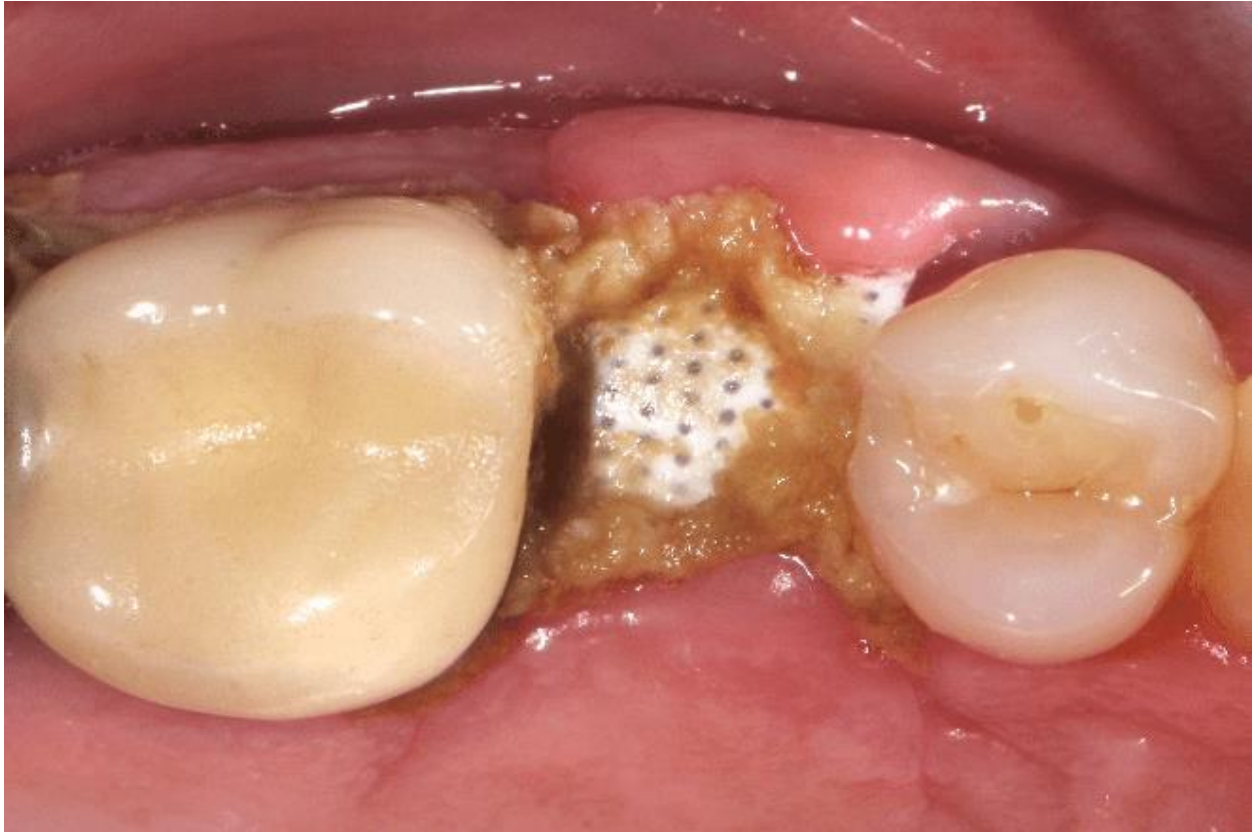
Continue to conform the gingiva into the desired position.



Surgery complete.



Day of extraction and grafting.



Two week post op appointment. Oral Bond™ will absorb moisture and swell over time. When using Chlorhexidine as a rinse, it will stain Oral Bond™ brown. At two weeks, Oral Bond™ is still attached to the gingiva, teeth, and membrane. If the membrane is mobile at this time, an additional application of Oral Bond™ will secure it until the 1-month removal appointment.

A significant positive finding with this technique is the hyperplasia of the gingiva. The hyperplasia is used to facilitate an improved esthetic result. The hyperplasia is produced by the presence of the membrane in the absence of sutures that compress the tissue in an unnatural manner. .



One month post op.



The membrane is removed at one month. Note the hyperplasia of the gingiva. The exposed tissue under the membrane is immature bone and not gingiva. A probe can be used to feel the incipient mineralization in the surface tissue.



Due to the hyperplasia of the gingiva, the implant is placed with a healing abutment at the time of membrane removal. We are using the advantages of Oral Bond™ to secure the membrane and the resultant hyperplasia to produce improved gingival esthetics for immediate implants and early implant placement. Further cases will document our progress.



Day of placement.



One month post op; the implant has integrated, patient referred for restorative. Bone density at the crest will continue to increase. At the apex where the implant is either in or near the sinus, a radiopaque layer has formed which will become either the sinus membrane or a new layer of mineralization.