

Recommended Protocols / Tips by the expert:



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Recommended Protocols / Tips for working with Augma Biomaterial's biphasic calcium sulfate cement (3D Bond™ and Bone Apatite®)

- **Socket grafting with 4 bony walls (Can be two ways)**

Option 1: without flap reflection

1. **No need to raise a flap**
2. **Extract the tooth** and prepare the socket for grafting.
3. **Eject the cement** into the socket.
4. **Press firmly** over the cement for 3 seconds using dry sterile gauze and finger pressure. **Do not use an instrument** to push and compact the cement into the bottom of the socket. (If the interdental space is too narrow to accommodate direct finger pressure on the sterile gauze, then a mirror handle or similar instrument can be applied on top of the gauze).
5. **Protect the cement** by covering it with a **collagen sponge** and **secure** the sponge in place to the surrounding soft tissue by an initial suture thereafter with a cross stitch above. **During the initial stage of healing, the cement should not be left exposed.**

Option 2 - with flap reflection

Use the same protocol as suggested below for sockets with missing buccal plate.

- **Socket grafting (single or multiple extractions) when the buccal plate is missing and the bony walls frame exists**

1. Before Flap reflection perform short mesial oblique vertical incision (up to 2 mm into the mobile mucosa).
2. **Raise full thickness flap, minimally as needed to expose the entire defect** – (Do not perform any manipulation to get tension free flap. No horizontal dissection release cuts, and no brushing. the flap should be with tension during closure and not tension free).
3. **Extract the tooth and prepare the site for grafting**
4. **Cement application**
 - eject the cement into the site
 - place dry sterile gauze and press firmly for 3 seconds on the buccal and occlusal aspects.
5. **Reposition the flap for maximal closure** by stretching it directly above the cement (exposure of 2-3 mm is fine, but no more than that).

- **Defects with no bony wall frame (Lateral augmentation, ridge widening)**

1. **Raise a flap**

- The flap should be minimally reflected in order to expose the entire grafted site. (The vertical cuts should be 2-3 mm into the mobile mucosa) Do not perform any horizontal periosteal dissection for release.

2. **Prepare the site for grafting**

3. **Cement application**

- Apply the cement and press firmly for 3 seconds to adapt to the defect using sterile dry gauze.
- If needed, apply additional layer to obtain desired volume (slightly overfill).
- Press firmly with the dry sterile gauze for 3 seconds after each layer.

4. **Flap Closure**

- Reposition the flap by stretching it directly above the cement for maximal closure (up to 2-3 mm of graft exposure is fine but not more than that).



Biphasic CS technology the foundation for complete bone regeneration

	3D Bond™	Bond Apatite®
Socket preservation	✓*	✓
Simultaneous augmentation of bone defects around Implants		✓
Bone augmentation in periodontal defects		✓
Lateral augmentation, ridge expansion, and ridge preservation		✓
Sinus Lift- Lateral window approach		✓
Sinus Lift Intra crestal approach	✓	✓
Dehiscence, fenestrations around teeth and/or Implants		✓

Table 1: Appropriate indications for **3D Bond™** and **Bond Apatite®**

* Only recommended in relatively small sockets such as incisives and premolars.

- **Sinus lift Protocol**

Sinus Lift - Lateral window approach protocol

1. Activate the syringe and wait 1 minute before application.
2. Eject the cement into the sinus cavity through the sinus lateral window until 2/3 of the sinus is filled (During cement dispersion in the sinus cavity, if needed tap gently above the material with a sterile dry gauze to absorb excess of fluid and blood).
3. For filling the last 1/3 and closing the sinus window. After activation of the cement (Do not wait 1 minute, eject it immediately into the site, place sterile dry gauze, press firmly for 3 seconds, and close the flap).

Sinus Lift - Intra crestal approach protocol

1. Activate the syringe.
2. After activation, eject the material into a dish and let it set for 3 minutes.
3. Use the syringe as a carrier (Any other bone carriers can be used as well).

Biphasic CS bone cement radiographic appearance

** Due to the replacement of the cement into the patients own bone, the Radiographic appearance will vary during the healing period.

- During graft placement - **Radiopaque**
- 2-3 weeks post op - **Radiolucent**
- 12 weeks post op - **Radiopaque**



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