



Palatal stent on donor site after free gingival graft in gingival augmentation procedures.

Partial & removable stent with mechanical retention on molars, no sutures or haemostatic agent used on donor site.

“Elemental’s bacteriostatic polymer is easy to apply, enabling fast chairside creation of a palatal stent to decrease post-operative pain, while removing the need for suturing and using haemostatic agents on the donor site. This stent with retention on the molars is aesthetically rather subtle and interferes minimally with occlusion”

Guidelines

- Start with performing the local anaesthesia.
- Prepare the recipient site as required for the gingival augmentation.



Harvesting the free gingival graft

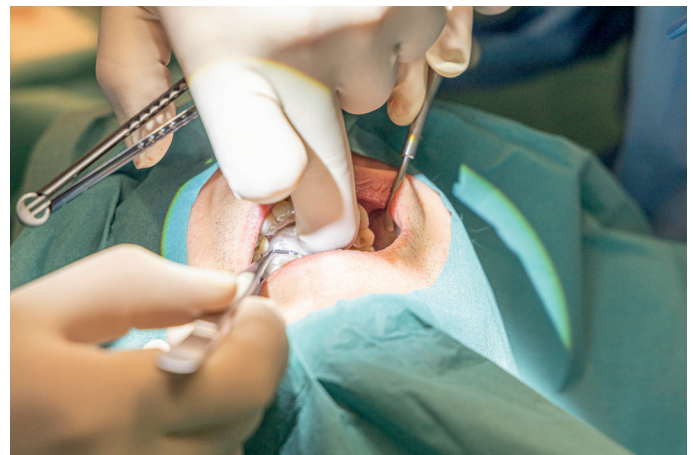
- Repeat local anaesthesia on the palate if needed.
- The area of choice for harvesting the graft is between the second premolar and second molar (#5, #6, #7). Keep in mind a safety zone of about 2mm from the gingival margin.
- Aim for 1.5mm thickness. A shallow graft will also limit the bleeding.

- **Measure:** Measure the required proportion of the graft and indicate the outline of the graft with 4 puncture points.
- **Outline:** Perpendicular to the surface, two sets of 2 parallel incisions are performed according the previous performed indication points. Attention should be given to overlap these cuts and to maintain a constant depth.
- **Undercut:** One single incision with an angulation of 30° over one of the long dimension of the outline will start undermining the surface.
- **Undermining:** Blade flattens, to same axis as surface. Thereafter the blade is rotated even further to be almost parallel to the tissue surface and moved gradually towards the other outline measure.



Uniforming & placing the graft

- After removal, place the graft on a saline-moistened gauze.
- **Uniforming:** de-epithelialize the graft extra-orally and remove fatty and glandular tissue with a scalpel. Aim for a uniform thickness. This is crucial for vascularization. Be careful not to overwork and perforate the graft.
- While uniforming the graft, ask the assistant to apply pressure with a wet gauze until the bleeding stops.



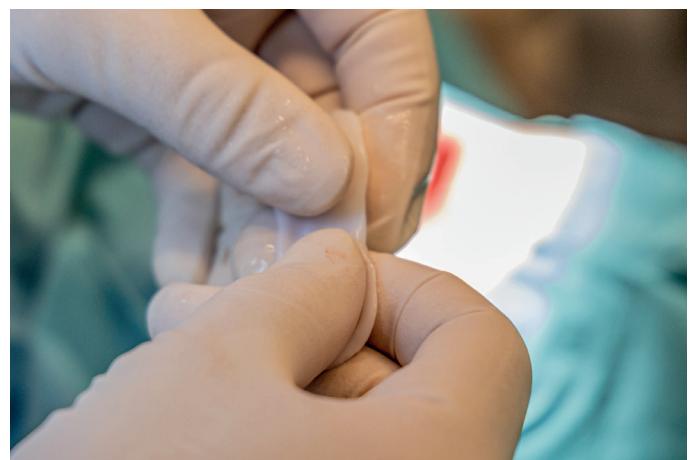
- The donor site remains uncovered while the initial blood clot is being formed.
- Apply the harvested tissue to the prepared recipient bed. Close surface contact between the graft and the recipient bed is crucial for vascularization, hence the importance of homogeneous thickness of the graft. Fixate the graft with adequate suturing.



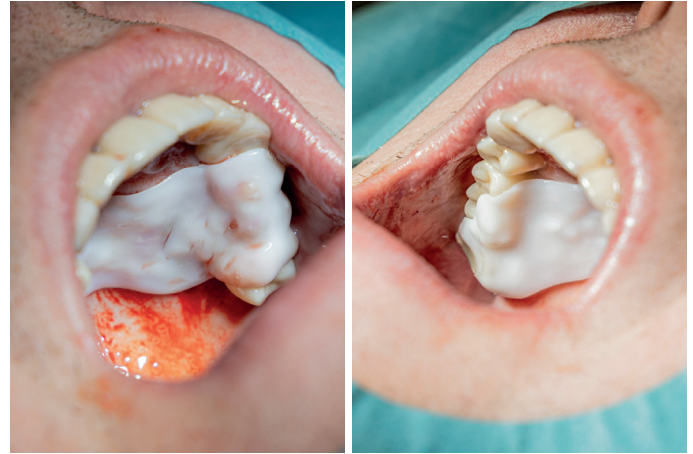
- After completion of the recipient site surgery & stabilizing the graft, we can now complete the palatal site.
- Repeat local anaesthesia on the donor site if needed.

Creating the palatal stent

- Heat & mix the Elemental polymer. Use boiling water or sterile saline. Cooler water may result in shortened working time, and the polymer may set faster in the mouth.
- Use latex gloves to apply the Elemental polymer. When in a soft moldable state, the polymer might adhere to nitrile gloves.
- Take out the polymer and mould it into a homogenous layer of max. 2mm thickness.



- Apply the polymer manually directly onto the palate. With gentle tactile pressure, adapt the material to the anatomy of the palate.
- Achieve retention by folding the polymer at least on one side over the molars. This also creates a 'handle' for the patient to take out the stent.
- With gentle tactile pressure, press the material into the interproximal spaces and undercuts on both sides. Let the stent harden in-situ.



- The stent will keep the blood clot in place and provide mechanical coverage of the palatal wound, avoiding disturbance and irritation of the wound, eg. by eating or brushing.
- Suturing is not needed, which will increase patient comfort. A follow-up appointment to remove sutures is not necessary. There's no need to place a haemostatic agent under the stent.



Patient instructions

- Recommend the patient to wear the stent for 1 to 2 weeks. Wearing the stent will minimize the post-operative pain. If the stent becomes uncomfortable, the patient can remove it and click it back in place when needed.