

1. Incision Design: Create a flap for tension-free closure. Extend full-thickness incision one tooth past defect bilaterally. Use vertical releasing incisions where necessary to obtain maximum soft tissue availability. Visualize defect.



2. Receptor Site: Prepare a definitive inlay site in anticipation of block graft using a straight bur. Rectangular inlay site should have flat sides and base, with an approximate depth of 0.5 to 1mm.



3. Perforate: Drill the receptor site with a \varnothing 1.1mm drill or round bur. Ensure that bleeding occurs over *entire contact area*.



4. Hydrate Block Graft: Place block graft into a 60cc syringe. Draw sterile saline solution into the syringe until the block graft is completely covered with the solution (twice the height of the block graft). Expel all of the air from the syringe.



5. Pull Vacuum: Thread cap onto syringe tip and apply negative pressure to the syringe by pulling on the plunger. Hold the plunger in the open position to expel any air and to hydrate the block graft. Continue this process until *all air bubbles are removed* and the block graft is fully saturated (approximately 5 minutes).



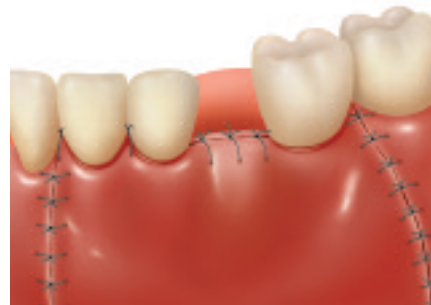
6. Shape Block Graft: Carefully round any sharp edges to minimize soft tissue trauma. Flatten cancellous side of block graft, being careful to preserve cortical layer. Do not remove cortical layer. Trim to fit sequentially until block graft lays flat and *intimately approximates* bony receptor site.



7. Drill and Place 1st Screw: Secure the block graft with a clamp. Drill oversized hole into the block graft only, using a \varnothing 1.5mm bit (lag screw technique). Next, drill through the block graft and into the bony site using a \varnothing 1.1mm bit. Place a \varnothing 1.5mm screw (length to be determined by amount of remaining bone and graft thickness) through the block graft and into the pre-drilled hole in the bone. Secure screw.



8. Drill and Place 2nd Screw: Repeat step 7 for at least one additional screw. Second screw should be oblique to the first to minimize stress fracture. Assure block graft is stable and free of any sharp corners or edges. Tighten the screws securely, being careful not to overtorque the screws. At least *two screws* are required per block graft to prevent rotation.



9. Suture: Place bone graft particles and membrane over graft (optional, but highly recommended). Suture the soft tissue flap into place. It is imperative to assure a *tension-free* closure.

Puros Block Allograft

Success factors

The following points are suggested to help ensure a successful clinical result:

- Careful patient selection and reinforcement of patient compliance, especially in the posterior jaw, are highly recommended.
- Extend full thickness incision beyond the graft site at least one tooth bilaterally. Releasing incisions should be used to assure adequate visualization and tension-free closure. Full-thickness flap is needed to assure adequate soft tissue availability.
- Fully hydrate the block graft with sterile saline solution only.
- Preserve the cortical shell and cancellous underside of the block graft as much as possible.
- Eliminate all sharp edges, but do not over-trim. Excessive trimming could weaken the block graft and result in fracture.
- Perforate the receptor site to enhance peripheral blood flow to the block graft.
- Assure intimate contact when mortising the block graft into the receptor site.
- Drill the holes in the block graft the same size as the screw diameter (Ø 1.5mm) to prevent block fracture. Use at least two screws per block graft.
- Stagger the screws obliquely in the block graft to minimize stress fracture.
- Use the *Puros* Block Allograft for horizontal augmentation to increase width of alveolar ridge.
- Fill all residual voids at the block graft site – *Puros* Particulate Allograft is recommended. Use a resorbable membrane to cover the block graft - *BioMend*® Membrane is recommended.
- Score the periosteum to induce bleeding prior to wound closure.
- Tension-free closure is imperative. 5-0 sutures recommended.
- Protect block graft and prevent premature loading until complete healing has occurred.
- Allow five to six months (5-6) of healing before implant placement.

| Catalog Number | Description |
|----------------|------------------------------------|
| 8220 | <i>Puros</i> Block Allograft, 10mm |
| 8221 | <i>Puros</i> Block Allograft, 15mm |

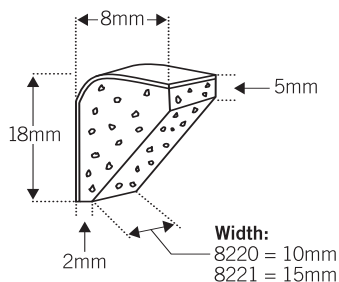


Fig. 1 Preoperative resorbed ridge.

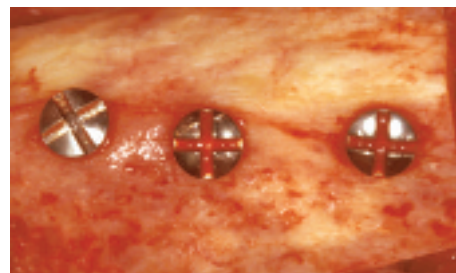


Fig. 2 Block allograft in place.



Fig. 3 Graft is incorporated at 4 months.

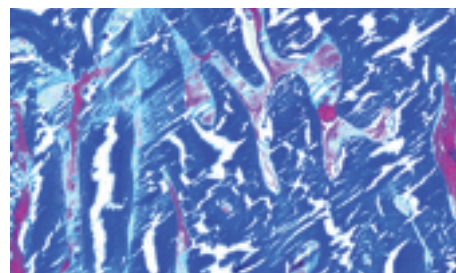


Fig. 4 Graft histology shows rapid turnover at 4 months.

Photographs courtesy of Paul S. Petrunaro, DDS, MS.

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In the U.S. 800 854 7019
To fax an order 888 225 2483
Outside the U.S. +1 760 929 4300
Australia +61 (0)2 9950 5444 or 1 800 241 916
Canada +1 905 567 2073 or 1 800 265 0968

France +33 (0)1 45 12 35 35
Germany +49 (0)761 4584 722/723
Israel +972 (0)3 6124242
Italy +39 043 855 5573
Spain +34 93 846 05 43



Zimmer Dental
1900 Aston Avenue
Carlsbad, CA 92008-7308
USA

www.zimmerdental.com