



Ridge Preservation and Augmentation for Either Fixed Restoration or Dental Implants Placement Using Regenaform® Moldable Allograft Paste

Series C, Number 1

EDGARD EL CHAAR, DDS, MS

*Diplomate of the Board of Periodontics; Associate Professor, New York University
Practice in New York*

**Regenaform® was evaluated in a human clinical study and was shown to induce bone formation.
Each lot of product is tested using the athymic nude rat assay to verify osteoinductive potential.*

INTRODUCTION

The need to preserve or augment a surgical site in order to achieve a successful restorative outcome is a frequent prerequisite for either a conventional restoration or an implant supported prosthesis. This is especially true when treatment planning a case that will require extractions due to periodontal disease or a site that has lost teeth previously from the same disease process.

In the past, different particulate allografts and xenografts have been used with inconsistent results. Autogenous bone blocks are still the golden standard in Guided Bone Regeneration, but harvesting them creates additional post-operative discomfort due to the extra surgical site and supply may be limited.

In my experience, Moldable Regenaform Allograft Paste creates a maintainable space, which is the most important step in regeneration. A six-month healing period should be allowed before re-entry to the regenerated site for implant placement, or a period of eight weeks if conventional dentistry is planned. In these cases, the time frame outlined posed no risk of volumetric change to the newly regenerated ridge due to the volumetric stability of Regenaform.

CONCLUSION

Regenaform Frozen Allograft blocks have proven to be a very valid alternative to autogenous blocks in this GBR treatment. They have provided surgical outcomes that I can reproduce case after case.

MATERIALS AND METHODS

Regenaform is a combination of assayed freeze-dried, demineralized

bone allograft and non-demineralized cortical cancellous chips in a thermoplastic gelatin matrix. It is a resilient, rubbery consistency at body temperature, but becomes soft and moldable by warming to a temperature of 43° to 49° C. When working with any new material, a learning curve with reference to the handling properties is necessary. My protocol of using Regenaform onlay block graft procedure is as follows:

- Full-thickness flap is elevated
- Cortical plate is decorticated in case of ridge augmentation
- Place graft material in water bath according to package insert instructions
- Placement of graft in surgical site
- Placement of resorbable membrane or non-resorbable membrane
- Tension-free primary closure

CASE #1: RIDGE PRESERVATION



Figure 1: Pre-operative of site before teeth extraction



Figure 2: Pre-operative radiographs showing the amount of vertical bone loss

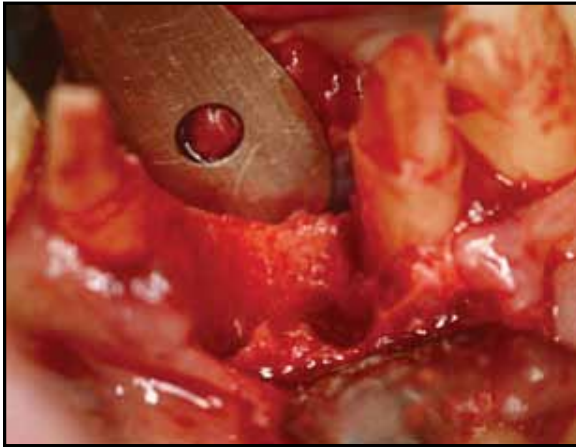


Figure 3: Teeth extracted. The defect extent can be evaluated.



Figure 4: Regenaform® block molded in place

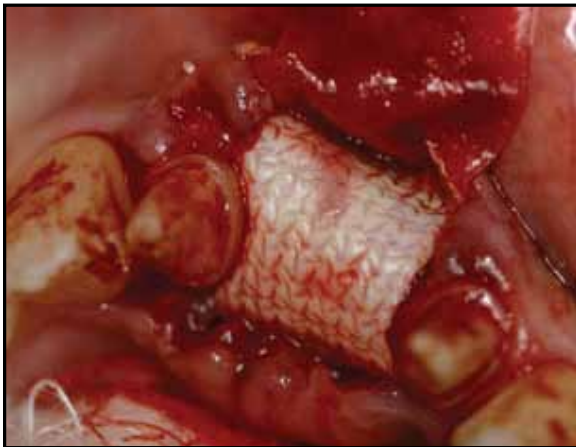


Figure 5: A resorbable membrane placed over the Regenaform graft



Figure 6: Six months post-op healing



Figure 7: Post-op X-ray reveals the vertical height of bone that was reconstituted



Figure 8: Final restorative treatment done by Dr. Myron Finkel

CASE #2: RIDGE AUGMENTATION



Figure A: Deficient ridge CL II seibert buccal view



Figure B: Ridge occlusal view

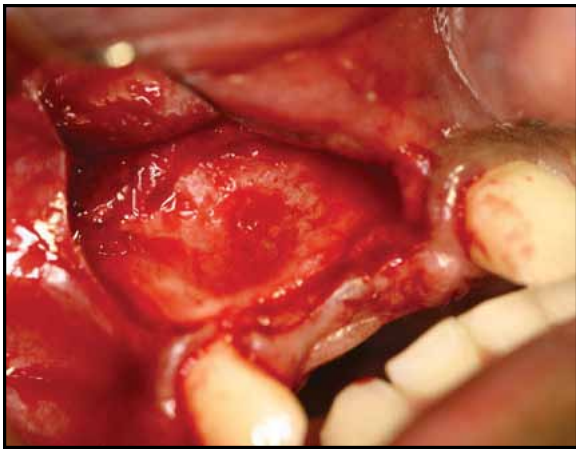


Figure C: Ridge exposed by full thickness flap



Figure D: Ridge decorticated

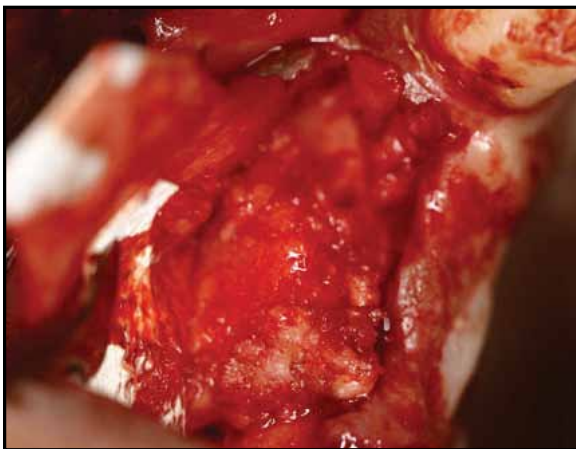


Figure E: Regenaform onlay graft molded in place



Figure F: Membrane placed over graft



Figure G: Passive primary closure



Figure H: Post-op seven days after surgery

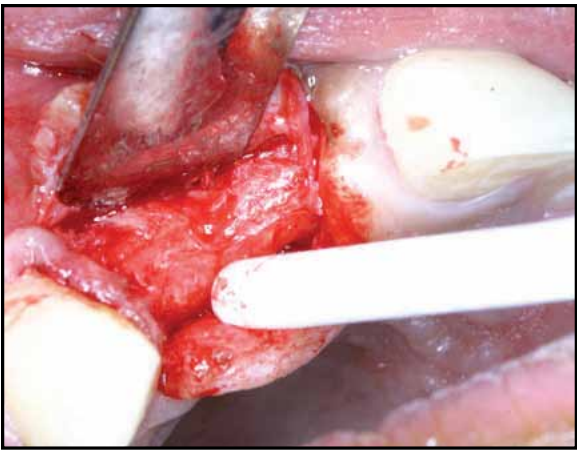


Figure J: Six months surgical re-entry

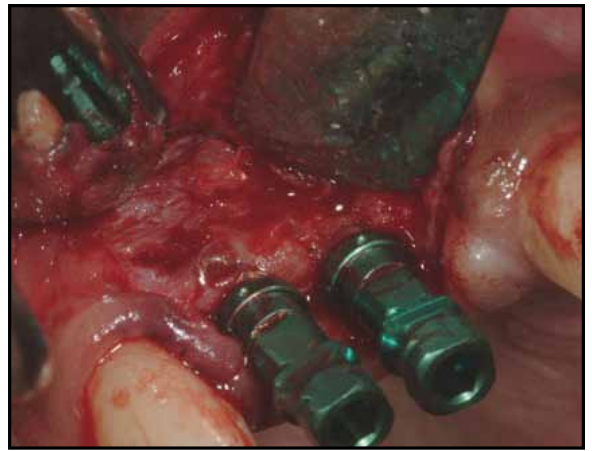


Figure K: Two dental implants placed



Figure L: Final restoration



Figure M: Smile view

