

CASE REPORTS

PRO-DENSE[®]

Injectable Regenerative Graft



Watch bone grow.

PRO-DENSE® Graft is the **first** and **only** bone graft substitute indicated for use in bone voids resulting from the resection of benign bone cysts and tumors.**



"The regenerate is far denser and more robust than any other grafting material I have used. It appears that the resorption of the graft and subsequent bone replacement are timed just right."

*Steven Gitelis, MD
Rush University- Chicago, IL*

Eleven year-old male with a unicameral bone cyst of the proximal humerus. A two-needle technique was utilized to percutaneously graft the UBC. Approximately 20cc of PRO-DENSE® graft was used to completely fill the lesion. New bone formation was detected at 1 month. The 2 and 10 month radiographs show progressive remodeling with continual new bone formation and resorption of graft. Note the change in shape of humerus in the 10 month radiograph compared to the pre-op radiograph.

No complications were reported. Patient was fully active at 3 months and remains at full activity at present. Individual results may vary.

In recently published clinical studies, PRO-DENSE® Graft demonstrates itself as a viable option for the reconstruction of cavitory bone defects following intralesional curettage of primary benign bone tumors.*



CASE STUDY | 1 month, 2 month and 10 month post-op radiographs

Demand PRO-DENSE® Injectable Regenerative Graft for your next benign bone lesion.

* Gentile, et al. *J Pediatr Orthop* 2013;33 254–61 Evaniew, et al. *Orthopedics*. 2013;36(2):e216-e222 Fillingham, et al. *Clin Orthop Relat Res* 2012;470(7): 2014-20

** As of May 2016. Individual results and activity levels vary after surgery and depend on many factors including age, weight, and prior activity level. There are risks and recovery times associated with surgery, and there are certain individuals who should not undergo surgery.

BONE CYST: PROXIMAL HUMERUS

CASE STUDY



PRE-OP



POST-OP

TWELVE YEAR-OLD MALE

with a unicameral bone cyst of the right proximal humerus. A two-needle technique was utilized to percutaneously graft the UBC. Approximately 20cc of PRO-DENSE® graft was used to completely fill the lesion. At two and five months, radiographs show dense new bone regeneration in close contact with residual graft. The six month CT scans show definitively that dense new bone has regenerated and replaced the resorbing PRO-DENSE® graft. The patient was at full activity with no limitations. At nine months x-ray demonstrates complete resorption of the graft and remodeling in process.

CASE STUDY | 2, 5, and 9 month radiographs. Notice dense regenerate on the 6 month CT scan, and further consolidation and remodeling at 9 months.

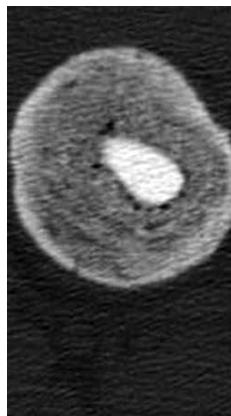
*Images courtesy of: Steven Gitelis, MD
Rush University Medical CTR • Chicago, IL*



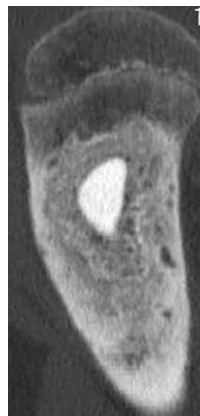
2 MONTHS



5 MONTHS



6 MONTHS CT SCAN



9 MONTHS

BONE CYST: HUMERUS

CASE STUDY | Pre-op radiograph



TEN YEAR-OLD MALE

presented with an aneurysmal bone cyst in the right humerus. The lesion was debrided and grafted with 15 cc of PRO-DENSE® graft. The 8 week radiograph shows resorption of the graft and formation of new dense bone. At 3 months, the graft is almost completely resorbed and replaced by new bone.

No complications were reported and patient was pain-free and at full-activity at 8 weeks.

CASE STUDY | 1 week, 8 week and 3 month radiographs

*Images courtesy of: Robert Heck, MD
Campbell Clinic • Memphis, TN*



1 WEEK



8 WEEKS



3 MONTHS

BONE CYST: PROXIMAL HUMERUS

CASE STUDY | Pre-op radiograph



TWELVE YEAR-OLD MALE

with a recurrent unicameral bone cyst of the right proximal humerus. Approximately 50cc of PRO-DENSE® graft were used to completely fill the lesion. No complications were reported. New bone formation was detected at 7 weeks, and at 7 months, a small amount of the residual graft was left. At 3 and 12 months, radiographs show dense new bone formation.

Patient was fully active at 10 weeks and remains at full activity at present.

CASE STUDY | 2 weeks, 3 months and 1 year post-op radiographs

*Images courtesy of: Robert Heck, MD
Campbell Clinic • Memphis, TN*



2 WEEKS



3 MONTHS



1 YEAR

ENCHONDROMA: FIRST METACARPAL

CASE STUDY | 2 week radiograph



FORTY-FOUR YEAR-OLD FEMALE

presented with an enchondromal cyst in the right thumb metacarpal. The lesion was debrided and filled with 4cc of PRO-DENSE® graft. Post-op fracture was reported at 6 weeks with radiographs at 6 weeks showing new bone formation and resorption of graft. At 3 months, the graft material was completely resorbed and replaced by new dense bone and consolidation of the fracture.

Patient was at full-activity level at 10 months.

CASE STUDY | 6 week, 10 week and 3 month radiographs

*Images courtesy of: Robert Heck, MD
Campbell Clinic • Memphis, TN*



6 WEEKS



10 WEEKS



3 MONTHS

BONE CYST: PROXIMAL HUMERUS

CASE STUDY | Pre-op radiograph



TEN YEAR-OLD MALE

with an aneurysmal bone cyst in the right proximal humerus. The lesion was filled with 40 cc of PRO-DENSE® graft. At 1 month follow-up new bone formation was detected on radiograph. Resorption of graft and formation of new bone progressed over time.

Patient began range of motion exercises at 1 week and full activity was tolerated at 2 months. No complications were reported.

CASE STUDY | 1 week, 2 month, 4 month and 6 month radiographs

*Images courtesy of: Robert Heck, MD
Campbell Clinic • Memphis, TN*



1 WEEK



2 MONTHS



4 MONTHS



6 MONTHS



1023 Cherry Road
Memphis, TN 38117
800 238 7117
901 867 9971
www.wright.com

62 Quai Charles de Gaulle
69006 Lyon
France
+33 (0)4 72 84 10 30
www.tornier.com

18 Amor Way
Letchworth Garden City
Hertfordshire SG6 1UG
United Kingdom
+44 (0)845 833 4435

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