

Bone Graft Case

Paul Hung, DDS*

USA

Submission: September 16, 2016; **Published:** September 16, 2016

***Corresponding author:** Paul Hung, DDS, USA, Email: paulhungdds@gmail.com

Periodontology

Bone Graft, ridge preservation, socket preservation, bone grafting and alveolar ridge preservation are several different terms used in dentistry for bone grafting. The purpose of this procedure is to preserve and prevent bone shrinkage after an extraction.

Wang and Lang reported in 2012 that “Applying the guided bone regeneration principle using bone substitutes together with a collagen membrane has shown clear effects on preserving alveolar ridge height as well as ridge width”.

Back in 2012, Dr. Gordan J Christensen stated that “socket grafting is not yet ‘standard of care,’ but in my opinion it certainly should be”

There are various types of bone materials - autograft which are from the patient’s own body, xenograft which is from a different species, allograft which is from a human cadaver and alloplast which is a synthetic material. I have only used allograft as this was what was available in the office at the time.

Not only is socket and ridge preservation for dental implants, it can also benefit by providing retention for dentures or providing aesthetics for a bridge.

Most PPO insurances do not reimburse much for a surgical extraction, let alone a simple extraction. Socket grafting can help boost production in addition to giving the patient the benefits of preventing bone shrinkage.

Here is my first socket and ridge preservation case: Patient EC presented with discomfort on tooth #31. Medical history reveals he has high blood pressure and diabetes type 2 (Figure 1).



Figure 1: Patient EC presented with discomfort on tooth #31.

EC states his previous dentist performed a root canal on #31. Radiograph reveals a root canal may have been initiated however incomplete and filled with a temporary restoration. An intraoral evaluation reveals a temporary restoration on the occlusal of #31 with open margins. #31 also had a mobility grade of 1.

My proposed treatment plan to EC was to surgically extraction #31 and placed a bone graft with membrane as patient expressed interest in implants.

After #31 was extracted, the material available at the time was Allooss Allograft Cortical Particulate bone graft, which was placed into

the socket and covered with RCM6 resorbable collagen membrane. Sometimes the particulates will move out of the socket however most of it will be covered by the soft tissue (Figure 2&3).



Figure 2: Allooss Allograft Cortical Particulate Bone Graft and RCM6 Collagen Membrane



Figure 3: Post op periapical after bone graft and membrane placement

This periapical was taken just two months after the socket and ridge preservation. Notice there is no cupping of the ridge, which is apparent in extractions without socket and ridge preservation. The dental director at this office commented on how great the bone graft looked (Figure 4).

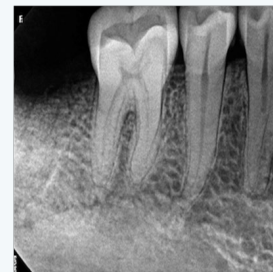


Figure 4: This periapical was taken just two months after the socket and ridge preservation

The healing time varies for maxilla and mandible, usually four to six months and two to four months, respectively. To reduce healing time I would recommend my fellow oral physicians to incorporate drawing the patient’s blood prior to the procedure and using it to create a PRF (platelet rich fibrin) membrane to help shorten the healing time.