

## Case Study: Novel Way of Using NovaBone Dental Putty in a Fresh Extraction Socket Prior to Implant Placement

Michele Dimaira D.M.D., M.S.  
Montville, NJ

### History:

An 18 yr old female patient presented with a second molar with poor prognosis due to advanced periodontitis (Figure 1). Since there was no peri-apical pathology, extraction of the involved tooth and placement of an implant immediately was the chosen treatment plan for successfully restoring the area.



Figure 1: Radiograph showing failed molar

### Surgical Procedure:

The tooth was extracted atraumatically under local anesthesia, the socket debrided and prepared for implant placement using ascending drill sizes. The largest and final drill was left in the socket and the hand piece disengaged. NovaBone Dental Putty was placed directly into the space between the drill bit and the socket wall (Photo A). The consistency of the putty material allowed for ease of placement and accurate adaptation of the putty around the drill bit while conforming to the socket wall. With the putty filling the void and positioned to the height of the crestal bone, the drill bit was gently removed without disturbing the Nova Bone Dental Putty. A 3.5mm X 10mm) endosseous implant was placed into the osteotomy site created by the previous drilling sequence (Photo B). The healing collar/healing cap was placed and sutures were used to secure the tissue in position as well as to contain the graft material. (Photo C).



Photo A



Photo B



Photo C

Histological evaluation was impracticable but immediate post-operative radiograph (Figure 2) showed the excellent adaptation of NovaBone Dental Putty to the implant surface. The six-week post-operative radiograph (Figure 3) reveals good trabecular pattern around the implant indicative of osseous regeneration and the nine-month post-operative radiograph (Figure 4) shows excellent trabecular pattern indicative of complete resorption of the putty and successful bone regeneration. The implant was stable and there was no radiolucency seen on the radiograph indicating successful osseointegration.



Figure 2: Immediate Post-Operative Radiograph

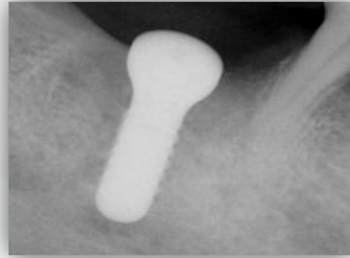


Figure 3: 6-Week Post-Operative Radiograph

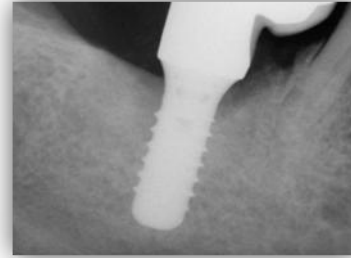


Figure 4: 9-Month Post-Operative Radiograph

### Discussion:

The modification in the surgical procedure outlined in this case report was possible because of the unique formulation of Nova Bone Dental Putty. The putty consistency has been engineered so the material does not flow out of the defect nor crumble inside. The cohesiveness of NovaBone Dental Putty allowed for ideal placement and stability even during irrigation. This novel improvisation also presents excellent adaptation of the putty to defect and the implant surface thus providing the best graft-implant interface possible which enhances osseointegration.

NovaBone Dental Putty is the only completely synthetic non-settable, resorbable bone substitute in a putty format that gives clinicians maximum working time without compromising the handling characteristics. It is also available in single use syringes that further simplify delivery and graft handling. With its unique osteostimulation mechanism, NovaBone Dental Putty enhances the rate of bone regeneration that ensue the upregulation of several genes responsible for an increased osseous activity at the defect site. NovaBone Dental Putty is an ideal material of choice for immediate implant surgeries requiring bone graft substitute.