

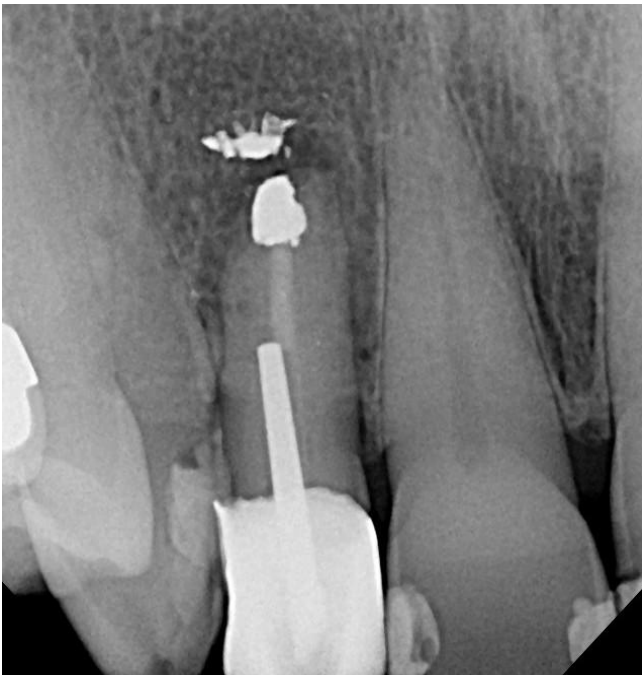
Immediate Implants: New Opportunities and Contraindications

Immediate implants are becoming more common and the goal of every immediate implant is to place an implant that is just as healthy with the same long term function as delayed implants. However, in the past, immediate implants were limited to those extraction sockets that provided significant vital bone for initial stabilization of the implant with minimal bony defects. Grafting around immediate implants with commonly used bone grafts may fill the defect but does not result in integration in the area of the bone graft.

Becker, Urist et al, studied bone grafting around titanium micro screws in humans concluded, "Xenograft bovine bone and DFDBA did not contribute to bone to micro screw contacts and are not recommended for enhancement of vital bone to implant contacts. Intraoral autogenous bone also does not appear to significantly contribute bone to implant contacts. Intraoral autogenous bone, xenograft bone, and DFDBA appear to interfere with normal extraction socket healing."

When grafting with nonresorbable graft materials such as MFDBA it is not possible to know if the graft has been successful. As noted in the study just cited. The graft site may look successful but the graft material is often mineralized graft particles in fibrous tissue which are susceptible to future periimplantitis. All of this changes when you can get bone integration to the implant surface in the graft area. Socket Graft Putty is the only bone graft proven to produce integration to the implant in the area of the bone graft. As a result of this property, when grafting with Socket Graft Putty you can achieve 100% integration to the surface of your immediate implant and produce equal results when compared to delayed implants.

The following case illustrates how integration to immediate implants in the area of your bone graft can expand the scope of cases where immediate implants are possible.



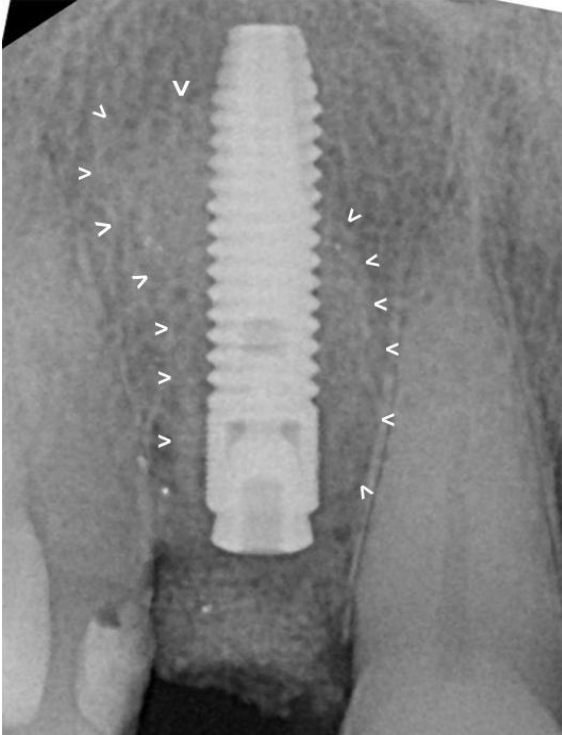
#7 shows bone loss between 6 and 7 with significant endodontic debris at the apex.



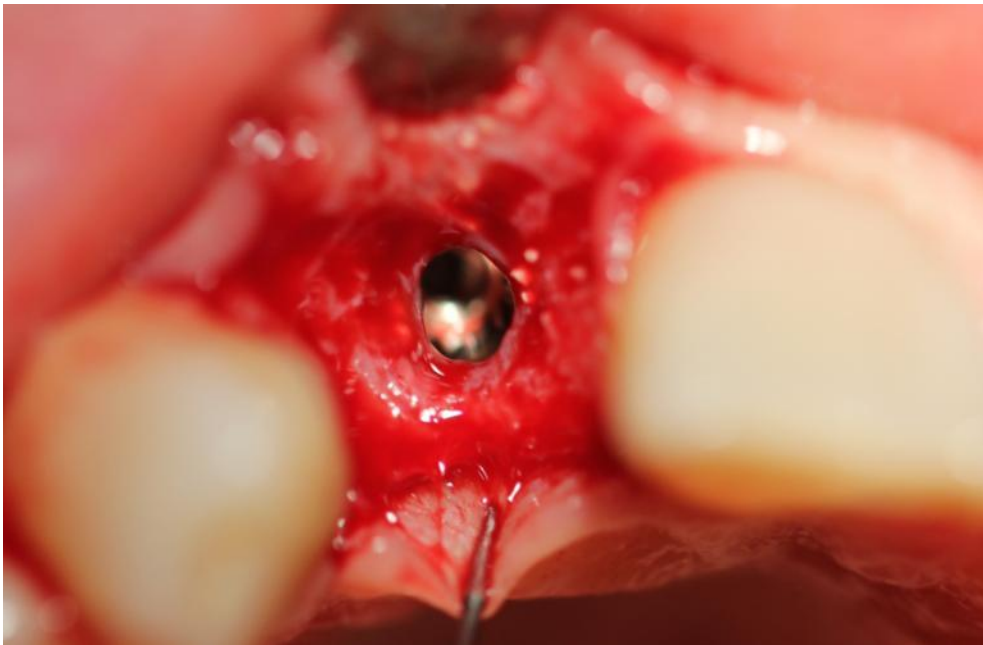
It was not possible to remove the endodontic debris from the extraction socket orifice so an apical flap with an osteotomy was needed to remove the debris.



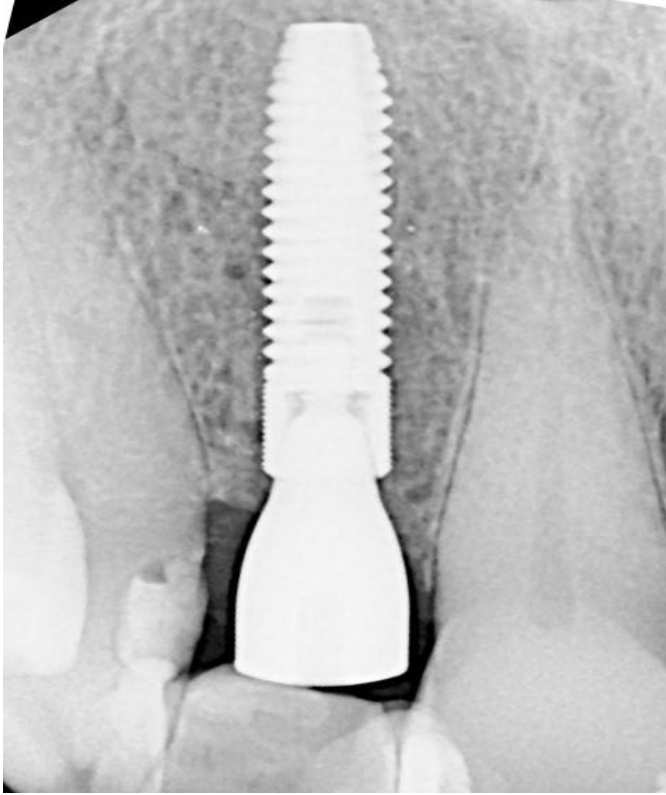
The socket was grafted with Socket Graft Putty mixed with OsseoConduct Perio bTCP granules. The mixture was 1/2 syringe of Socket Graft Putty mixed with .5 cc perio granules.



This radiograph was from the day of surgery. The arrows outline the boarder of the graft material and the limited amount of bone available for primary stabilization.



This photograph was taken 7 weeks after implant placement when the healing abutment was placed. Note, some of the OsseoConduct bTCP granules have not yet resorbed.

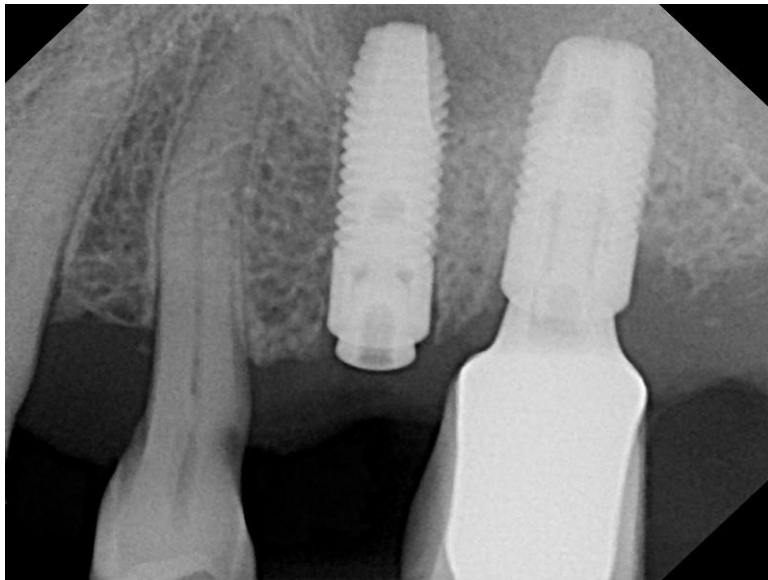


Day of healing abutment placement 7 weeks after implant placement shows excellent bone formation around the collar of the implant and along the border of the healing abutment. When to load an implant is at the discretion of the surgeon. Steiner Biotechnology does not advise healing abutment placement at 7 weeks. However, we use this case to illustrate how the osteogenic properties of Socket Graft Putty shows implant to bone integration.

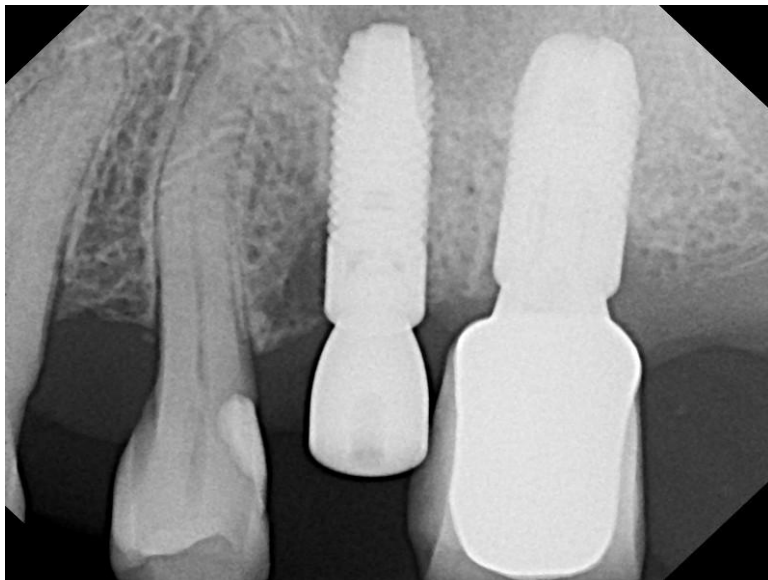
Age, medical conditions, and infection have not affected the success rates of immediate implant placement when grafting with Socket Graft Putty. Any compromise in bone vitality as a result of these conditions is offset by the stimulation of osteogenesis provided by the graft material. However, the following cases describe a contraindication to immediate implant placement when using Socket Graft Putty.



This patient presented with the loss of his clinical crown and a periapical lesion on tooth #13.



An immediate was placed with grafting on the mesial and buccal.



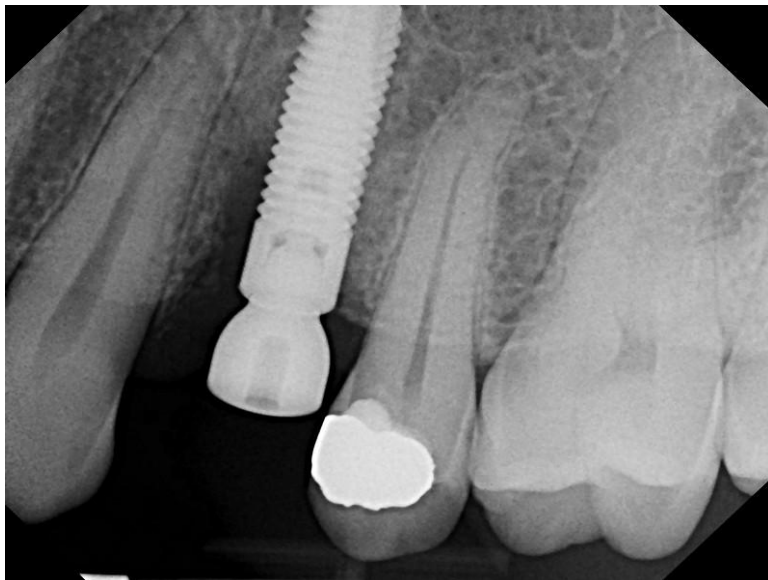
At the healing abutment appointment the graft had failed with a lesion on the mesial and buccal however, the implant was integrated. The patient was scheduled for an attempt to repair the bony defect.



In a similar case, this patient lost his clinical crown and the root was malpositioned with a periapical lesion.



An immediate implant was placed with grafting on the mesial, buccal and lingual.



At the healing abutment appointment again, a significant bony lesion was found in those areas that had been grafted. The implant was integrated and the patient was scheduled for an attempt to repair the bony defect.

Both of these cases are routine immediate implant cases that should have had an excellent result with the treatment provided but they both failed. In review of the patients health history, both patients were a pack a day smokers. Immediate implants are contraindicated when using Steiner Biotechnology graft materials on smokers. **Therefore, in smokers delayed implant placement is advised with extraction and grafting with Steiner Biotechnology bone graft products.** In smokers delayed implant placement after grafting with Socket Graft Putty results in a 100% integration rate.