Using Foundation bone augmentation material

By Jeffrey L. Turchi, DDS

Placing some type of bone graft or augmentation material into extraction sockets is rapidly approaching “standard of care” status according to Dr. Jon Suzuki, director of the graduate periodontics program at Temple University School of Dentistry.

The emergence of implant dentistry as treatment of choice is undeniable and along with this movement the preservation and augmentation of the alveolar ridge by bone grafting or other methods will be critical for success.

Bone grafting has a long history. The first known attempt was performed by a Dutch surgeon in 1688. Bone grafting has gained much momentum along the way, being surpassed only by blood transfusions as the most transplanted human tissue. I will attempt to give an overview of the current state of bone grafting or bone augmentation.

There are several different bone graft procedures available today. The “autogenous” graft is considered the gold standard of grafts because it utilizes the patient’s own bone. Bone is typically harvested from the patient’s hip or palate.

Despite the predictability of using one’s own bone, the need for a second surgical site is a disadvantage. The “allograft” also utilizes human bone but in this case the bone is collected from a person other than the patient, usually a cadaver. Although it is uncommon, there is a small risk of disease transmission especially if the source of the allograft is not well monitored.

There are some other, less popular graft materials on the market also. These are typically synthetic materials that either act as artificial bone or act as a framework for bone to grow into at its normal rate. Products that behave like this are considered to be

Here is a case where No. 12 was extracted and Foundation was placed for a future implant.

Tooth #12 grossly decayed, diagnosed as “hopeless”

Initial phase of extraction, estimating shape of root tip

Extraction of root tip #12

Proper handling of Foundation; do not touch with bare hands

Shaping the plug to mimic the root tip

Plug now resembles root tip (not mandatory)