

Bone Grafting

Often there is not adequate bone quantity to support the teeth, to place a dental implant, or to make the smile esthetically acceptable. Bone grafting can be accomplished to rebuild the deficient areas to the level that they are acceptable.

The following are the types of materials that are used for oral bone grafts. They are listed in the approximate order of their use:

- **Allograft:** This is human cadaver bone. It has been harvested to federal standards and has had all potentially negative factors removed from it.
- **Xenograft:** This is bone harvested from cows. It is used in the same way as human allografts, and it has about the same success rate.
- **Alloplast:** These grafts are not bone. They are synthetic materials including, ceramic, polymer, composites, aluminum oxide, titanium oxide, calcium phosphate (hydroxyapatite HA), beta tricalcium phosphate, polymethylmethacrylate, and others.
- **Autogenous Bone:** This bone is harvested from a site in the patient's own mouth or elsewhere from the patient's body. Typical sites include the chin, the heavy bony part of the lower jaw or upper jaw, sites near the defect location, or occasionally from other parts of the body.

All of these types of bone grafting materials have been proven to be successful most of the time. However, as with any other technique, some grafts fail in spite of the best efforts of the practitioner, and other techniques have to be used as the treatment.