

## Aftercare Instructions: Bone Grafting

### Major and minor bone grafting

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### Major bone grafting to repair major bone defects

Bone grafting can repair implant sites with inadequate bone structure due to previous extractions, gum disease or injuries. The bone is either obtained from tissue bank or your own bone is taken from the jaw, hip or tibia (below the knees). Sinus bone grafts are also performed to replace bone in the posterior upper jaw. In addition, special membranes may be utilized that dissolve under the gum. These membranes protect the bone graft and encourage bone regeneration. This is called guided bone regeneration or guided tissue regeneration.

Major bone grafts are typically performed to repair significant defects of the jaws. These defects may arise as a result of traumatic injuries, tumor surgery or congenital defects. Large defects are repaired using the patient's own bone. This bone is harvested from a number of different sites depending on the size of the defect. The skull (cranium), hip (iliac crest), and lateral knee (tibia), are common donor sites, these procedures are routinely performed in an operating room and require a hospital stay.

### Minor bone graft and ridge preservation after extraction of teeth.

There are many defects that limit the surgeon's ability to place implants but do not require large volumes of bone to correct. Although natural bone can be used to successfully

augment these defects, there are other alternatives available. The most common materials used today are derived from cadaver cow bone. The bone is prepared by the combination of freezing drying, sterilizing and irradiating to eliminate the organic 'cow' material. All that is left is the inorganic mineral components (calcium phosphorus) that are provided in granular form. This material can be placed in the following removal of the tooth. Human cells will grow out of the surrounding blood clot and turn the granules into human bone. This will prevent shrinkage of the bony ridge that usually accompanies an extraction or repair a defect that would prevent the placement of an implant. The same material can be placed around the implants that have insufficient thickness of bone around them to properly anchor them in the bone. This material can be used alone or mixed with human bone depending on the specific situation. If no human bone is needed, that eliminated a second surgical site to harvest the human bone.