Bone Grafting

Periodontal disease is an infection around the teeth that damages and destroys the bone. In recent years periodontists have found ways, in many cases, to grow the bone back around the teeth. These advancements result in saving teeth that were once thought to be hopeless. The idea of bone grafting is not new but the success that can now be achieved is dramatically better.

Bone grafts can also be used to build-up a jaw-bone that is too thin so that implants can be placed. Bone grafting is also frequently used in an extraction socket to prevent shrinkage of the bone during healing, which can often times result in a difficult area to restore cosmetically.

The best bone graft material is the patient's own bone. The bone is harvested from adjacent bone during the periodontal surgery after the infection has been removed. This is a quick, painless and convenient method to acquire the graft material. The bone graft is then packed around the tooth.

Most of the time, the bone graft is then covered by a biocompatible membrane, which acts as a bondage to protect the bone until it has a chance to heal. This membrane is usually made of a material that dissolves in 8 to 12 weeks. The gum tissue is then closed with sutures over the bone and membrane back to its original position.

If there is not enough bone in a near-by area during surgery to serve as a graft, other sources of grafting material are available. The most common of these is human bone, that comes from a bone bank. We get it in a freeze-dried form which is reconstituted with a sterile solution at the time of surgery. This is a good material and is often

used with the patients bone when a large volume is needed. Synthetic bone graft materials are also available but do not have the same abilities and success as human bone.

Recent research is showing some exciting potential in bone regeneration. Certain proteins can now be produced through genetic engineering, that when added to bone grafts, increase the quality and volume of bone that can be regenerated. These bone morphogenic proteins (BMP) are making bone grafting even more successful.

Bone grafting and regeneration of new support for the teeth is today an everyday, common procedure in a periodontists office. These procedures cause no additional discomfort and are extremely well tolerated post operatively. There techniques offer another weapon against the destructive process of periodontal disease.