

Jawbone: Use It, Preserve It, or Loose It

Did you know that when a permanent tooth is lost, the bone that it was in goes away? Within the first 3 years often 60 percent of the bone is lost, both height and width. This bone loss then usually continues at a slower pace for the rest of your life. This can have some significant implications as we will see.

Why preserve you jawbone? There are four main reasons: 1) to maintain the foundation for your teeth so that they are not lost due to gum disease in the first place; 2) to have enough ridge to allow a good cosmetic result and stability when replacing teeth with a bridge or partial; 3) to have enough bone to replace a tooth or teeth the best way with implants; 4) to have enough bone to have decent function from a denture if all the teeth have been lost.

Periodontal disease (periodontitis), best described as gum and bone disease, causes more people to end up in dentures than the other main reason, decay. Periodontitis sneaks up on people. By the time any pain occurs, it is often too late to save the teeth. It can be treated in its early stages effectively non-surgically with what is called a deep cleaning (or deep scaling or scaling and root planning). Once it is in the moderate or severe stage, surgical treatment is best. This can be done with the FDA approved laser procedure LANAP, or conventionally with a scalpel. If you suspect gum problems, don't wait till it hurts or it may be too late.

When a tooth is lost due to periodontitis, it has already lost most, if not all, of the bone that was around it. If a tooth is lost due to decay or fracture this is not the case. The bone will start going away almost immediately because it is not stimulated. The phrase "use it or loose it applies". Bone is "used" when it is stimulated by chewing on a tooth. When the tooth is no longer there, the body starts resorbing that bone.

So how do we keep that bone from going away? There are two ways. The ideal way in a reasonably healthy patient is to place a dental implant where the tooth was. This can sometimes be done at the time the tooth comes out, but more often it is several months later. An implant stimulates the bone just like a natural tooth root and functions just like a natural tooth when put into function.

The other way to preserve most of the bone from going away is called socket grafting. When the tooth is removed the hole in the bone where it came from is called a socket. A type of biocompatible grafting material (there are several) is placed in the socket and the area is closed usually with a covering and dissolvable stitches.

The grafting material provides a matrix for new bone to form in and around to fill in the socket much faster. There is less bleeding and far less chance of a "dry socket", which is a painful delayed healing of the area. The graft also prevents that 60% or so of bone loss that happens in the first few years.

As discussed in paragraph 2, there are several advantages to grafting. If an implant is planned, it lets us do it several months sooner than if not grafted, sometimes even when the tooth is removed. When the socket has been grafted, there is usually enough bone to place an implant in even many years after the tooth came out. Many times when evaluating patients for implants I have to say "I'm sorry, there's just not enough bone left." Bone volume can sometimes be regained through more extensive and expensive grafting procedures to rebuild the ridge, but it's far better not to lose it in the first place.

If no implant is planned, grafting still preserves the bone. This is important to prevent big spaces from forming underneath a bridge or partial over the years. If it was a front tooth that was lost, it will prevent the "caved in" look underneath the false tooth that often occurs.

If the person has dentures in their future, it is still extremely beneficial. Over the years, many denture patients will lose so much bone that there is literally no ridge to set a denture on. This makes function extremely poor. In some cases, so much bone is lost that the whole jaw bone can become as thin as a pencil which can result easily in a jaw fracture with any trauma.

So to summarize, when it comes to jawbone... use it, preserve it, or lose it.

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