

Problem Solvers 31 Socket Grafting

Synonyms: socket preservation, grafting, socket grafting, augmentation.

Twenty million teeth are removed each year in the United States. The ability to replace this missing tooth with dental implants has never been more predictable if attention is paid to preserving the existing bone around the tooth socket. This procedure is called socket grafting or socket preservation.

Tooth loss can be very traumatic. Millions of people lose a tooth and are never told about the bad things that happen if the tooth is lost. In the first six months after a tooth is pulled a person can lose 40% of the remaining bone height and 60% of the bone width where the tooth was. This can lead to severe difficulties cosmetically and functionally when trying to restore the missing tooth with a dental implant.

When teeth are lost the teeth on each side of the space can drift into the space. This can change someone's bite and lead to further shifting and fracture of the surrounding teeth.

The next problem is super-eruption. This is when the tooth directly opposite of the pulled tooth will move into the space left by this extraction. This can lead to painful biting on your own skin or uneven bites, which can result in fracture. As well, if there is super-eruption, then there is not enough space left to replace the missing tooth with a bridge or an implant. This can mean that the tooth that has super-erupted must have a crown to shorten the tooth, or orthodontics to intrude or put the tooth back into its normal position. In severe instances a root canal may be needed to take the nerve out of the tooth in order to shorten it and have the space to put a normal sized tooth back in the space.

Do I need a socket graft if I don't want an implant?

Well, not always as sometimes the socket bone can regenerate on its own. Grafting a socket before a bridge is made can allow the soft tissue to look more natural. So using long lasting fillers like dense hydroxyapatite crystals can keep a bridge looking more natural.

How long to I have to place an implant after a socket grafting procedure?

Since this bone will deteriorate quickly, the bone placed in a socket will keep it broader for up to a year so implant placement is easier.

What types of material are used for socket preservation?

Materials that are commonly used are:

- Bone from the host-called autograft. This is usually from the extraction area

and is harvested at the time of the extraction.

- Donated bone-called an allograft. This is usually from a bone bank and has been sterilized so no living cells exist. This is perfectly safe and allows new bone to grow and replace this matrix material.
- Calcium Carbonate or Coral which is a porous hydroxylapatite crystal.
- Bio-active glass
- Polymer or plastic –PMMA or polymethyl methacrylate won't disappear.
- Anorganic -Bovine bone from a cow.
- Calcium phosphates

These materials are chosen based upon the length of time anticipated prior to placing the implant as they are replaced by bone at different rates. Some materials are for ridge preservation and are not suitable for use if an implant is to be placed in the future as the material will not integrate with the titanium implant surface.

Should I have socket preservation?

If you are not sure whether to have the procedure done or not, realize that lack of bone can lead to much more expensive grafting procedures later. So when in doubt socket preservation may “buy” time for up to a year without experiencing significant bone degradation.

I have a big abscess, should I still have the socket grafted?

In many instances your dentist may remove the infection and come back to graft the socket in a few weeks when the bacteria are gone from the extraction site.

Do I need antibiotics before a socket is grafted?

In cases of infection, pus, exudate or drainage the dentist may elect to put you on antibiotics before the extraction is performed.

Do I always need a socket preserved?

In some instances where severe bone loss has occurred there may not be enough socket left to worry about. In these instances it is better to wait and evaluate the bone once it is healed.

Will the implant be easier to place after having this procedure?

The carefully placed grafting material can allow for dense bone formation. In sockets that haven't been grafted their can be soft tissue in the implant site or an uneven bony ridge which can make implant placement more difficult.

How does the grafting material stay in the socket?

Usually, the socket will be covered by a collagen membrane so a seal can exist for the grafting medium. Otherwise the skin will be closed so that the graft is tightly sealed in the hole.

If I need all my teeth pulled do I have to pay for each individual tooth to be grafted?

Usually a dentist will discount the fee for multiple sockets and may have a grafting fee for the entire arch to help control costs.

My tooth was removed and the graft is yellow and smells did something go wrong?

It is possible the graft was infected and may need to be removed and redone after some period of healing.

My stitches popped when I was eating and I see pieces of graft coming out of the hole-will I lose my graft?

Your dentist can evaluate the level of healing that has occurred and may need to replace the membrane or regraft the site if too much material was lost.

Can they place an implant the same day they pull my tooth?

Yes sometimes there is no infection and plenty of thick bone to accommodate an implant so the implant can be placed the same day.

My dentist told me they had to graft the socket and place the implant, why do they do this?

Because sockets are not round, implants are round and if there is too much of a space between the implant and host bone, some bone filler may be used to fill in any remaining gaps and prevent soft tissue from getting around the implant.

If I am not sure if I want an implant and decide I want one in a year or two can they graft the socket later?

No, the opportunity to socket graft or socket preservation as it is routinely called, is for immediately following tooth removal. Should you have a lack of bone in the future a block graft or a tent grafting procedure may be needed to try and rebuild the bone that was lost.

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