

Problem Solvers 35 Sinus Lifts

Synonyms: Sinus grafts, socket sinus, sinus lifts, lateral window sinus graft, sinus augmentation, subantral sinus augmentation.

With people living longer there are many problems that people face when they lose their teeth. The back of the upper jaw or maxilla can be very problematic as the sinuses get bigger over time making dental implant placement impossible without adding bone in a procedure called a sinus lift or subantral sinus augmentation.

Thirty million people or 17% of the population have no teeth in one arch of their mouths. Total edentulism will be present in 30 million people by 2020. With baby boomers living longer and the desire to stay young and vigorous a priority for these people, more people are turning to dental implants to replace their missing teeth. When teeth are present in the upper jaw the sinuses are usually high in the skull because the roots of the teeth almost act as tent posts to keep the sinus high. When teeth are removed there is a 60% loss of vertical height and 40% loss of width in the first year post extraction. This allows the sinuses to expand or “pneumatize” and get bigger like a balloon expanding to fill the area that was previously occupied by teeth. In order to place titanium implants there needs to be bone in the back of the upper jaw to eliminate rocking and to create a stable bite. The use of a procedure called sinus lifts was created in the late 1970’s by Dr. Boyne and Tatum to open a window next to the sinus, elevate the thin sinus membrane and put bone between the membrane and the host bone. This procedure resulted in a growth of bone that would be suitable for implant placement and restoration.

Sinus lifts can be done in several ways. Some of the ways are as follows:

- Socket sinus lifts with osteotomes are done when a small window is made up to the floor of the sinus through the extraction site. Then by using special instruments the floor of the sinus is fractured and bone is added through this small hole.
- Socket sinus lifts with balloons. Sometimes balloons can be used to gently lift up the sinus membrane by filling them with saline in controlled fashion to create a pouch, then the balloon is deflated and bone is injected into the pouch. This is done to try and avoid tearing the membrane as it is lifted.
- Lateral window or Caldwell Luc procedure-this involves making a small oval window in the posterior jaw and lifting up the membrane called the Schneiderian membrane, to place bone between the floor of the sinus and the alveolar bone.

Some people may require sinus lifts and then onlay grafts where bone is added to further increase the height or width of the remaining bone prior to implant placement.

My dentist told me I need a sinus lift what are the contraindications of having the procedure?

Sinus grafting is a surgical procedure that has risks and complications just like any other surgical procedure. There is the possibility of infection, resorption of the graft, tearing the sinus membrane and all risks of the procedure should be explained prior to giving informed consent.

People that should not have sinus grafts:

- People that have had radiation treatment to the upper jaw.
- Sepsis or poor healers.
- Patients that are medically frail or unstable.
- Uncontrolled systemic diseases such as diabetes or cardiac problems.
- Excessive alcohol use or drug abuse patients.
- People with emotional disorders.

The other conditions that may interfere with sinus grafting would be: maxillary sinus infections, chronic sinusitis, tooth infections, severe allergies or other sinus pathology and lesions. In these instances treatment by an ENT or Ear, Nose and Throat physician should be performed and only after clearance for the procedure should it be considered.

I am having a bilateral sinus lift, what can I expect?

The dentist will make sure you have an updated medical history and will have performed a 3 dimensional imaging to insure you have no problems with your sinuses prior to the surgery.

You will then perform a mouth rinse to kill bacteria in the mouth. Since the mouth is not a sterile organ, there is a need to have a sterile operatory and remove as many bacteria as possible so that the risk of postoperative infection is as low as possible. Usually the patient will be draped and the surgical operating area is draped and covered to facilitate aseptic protocol.

Will the procedure hurt?

Most patients report that it hurt less than removal of the teeth. There are very few nerves in this area of the mouth so it results in minimal pain. There is the chance of some bruising or swelling but it is controlled easily with ice and medication.

I had a sinus lift and now I have a fever. Is this normal?

No, you should see your dentist if you have any discolored discharge from your nose, a fever, swelling or you feel your stitches have opened up.

I have had sinus lifts done should my implants be splinted with a bridge or can I have individual crowns?

Discuss this with your dentist but the act of splinting can increase how the bridge stays on, improves stability and support and may help decrease stress on the individual implants.

I had a sinus lift 3 years ago and couldn't afford the implants; can I have it done now?

Bone grafts have a window of successful treatment. If you wait longer than a year, the bone graft may resorb and not be adequate to hold on to implants. The lesson is to only go through sinus augmentation surgery if all costs of complete treatment are agreed upon ahead of time. There is really no benefit to doing a sinus graft if the implants will be delayed for a year or longer.

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