

Zygomatic Implants

What are zygomatic implants?

Zygomatic implants are used when there is inadequate bone available in the upper jaw for dental implants. They are longer in length and instead of relying on the jawbone for fusion, they extend past the upper jaw and anchor into the cheek bone ([zygomatic bone](#)).

Zygomatic implants are inserted into the back section of the mouth, in combination with conventional implants used in the front of the mouth. This provides a solid basis for implant support as it spreads the stress across a broad area and allows for immediate placement of dental bridges at the time of surgery. This means there is no need to use a denture or go without teeth for any period of time. There may be a requirement for either 2 (one on each side) or 4 (2 on each side) to support full or partial dental bridges.

Why would I need Zygomatic dental implants?

Zygomatic implants are used when there is insufficient bone in the upper jaw. They are used:

- If there is bone loss with advancing age (patients who have lost teeth or worn dentures from an early age).
- After resection of tumours.
- After trauma.
- If there is severe bone resorption (atrophy).

Zygomatic implants reduce the need for bone grafting. Only [Oral and Maxillofacial surgeons](#) have the skills and adequate training to carry out this procedure. The treatment is performed under anaesthetic as day surgery and a full set of immediate teeth can be connected to the implants on the same day of surgery.

What happens during Zygomatic Implant surgery?

The process of placing a zygomatic implant uses multiple steps, including:

- Performing a [Cone-beam computed tomography \(CBCT\)](#) or [computer tomography \(CT\)](#) scan based virtual planning. A CBCT machine rotates around you, capturing data using a cone-shaped x-ray. In less than a minute, about 150-200 images are captured from a variety of angles. The data captured is used to reconstruct a 3D image of your teeth, mouth, jaw, neck and ear, nose and throat if required. Creating a custom surgical guide reduces operating times and uses less anaesthetic.
- Implant placement and dental bridge insertion. The procedure usually takes about 3 hours under a general anaesthetic.
- The bridge is inserted on the same day or the next day.

Pain relief during procedure

To control pain, anaesthesia options will be discussed by your dental specialist. Your dental care team will instruct you about eating and drinking before surgery. After general anaesthesia, plan to have someone take you home after surgery and expect to rest for the remainder of the day.

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What can I expect after the procedure?

- Swelling of your gums and face.
- Bruising of your skin and gums.
- Pain at the implant site.
- Minor bleeding.
- Nausea.

If swelling, discomfort or any other problem becomes worse in the days after surgery, contact your oral surgeon. After each stage of surgery, you may need to eat soft foods while the surgical site heals. Typically, your surgeon will use stitches that dissolve on their own. If your stitches aren't self-dissolving, your surgeon will remove them.

After treatment plan

To reduce your risk of developing complications, it is essential that you closely follow any aftercare instructions such as:

- Ice packs can be used to help reduce swelling. Use as much as you can stand for the first two days after surgery, changing packs every 20 minutes.
- Stick to soft foods for at least two weeks or longer. Hard foods should be reintroduced slowly.
- To manage pain, take over-the-counter or prescription medication as directed.
- If given antibiotics, take as directed.
- Avoid disturbing the surgical area.
- Do not use tobacco and avoid or limit alcohol consumption.
- Rest as much as possible and avoid intense physical activity for the first few days.

What are the benefits and risks of the procedure?

Some of the benefits of zygomatic implants are:

- Improved appearance.
- Improved speech.
- Improved self-esteem.
- Normal looking teeth and gums.
- The freedom to eat what you like.
- Teeth that don't come out.
- The elimination of denture sore spots.
- Long term tooth support.
- Faster healing than bone grafting.
- Low maintenance.

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Other benefits include:

- Dental bridges are attached on the same day as the procedure, so there is no time without teeth or need for a denture.
- Bone grafting is rarely required.
- Zygomatic implants can support 3-4 teeth, compared to 1-2 teeth with dental implants.
- Four zygomatic implants can support a full upper dental bridge.
- Zygomatic implants can be used to salvage other failed or failing dental implant treatments.
- Four zygomatic implants can support a full upper dental bridge.

Although the zygomatic dental implant process does have a high success rate, it does still carry certain risks, such as:

- Sinusitis which is the most common. If this occurs there is a good chance it can be corrected, however treatment can be difficult and the loss of the implant is possible.
- [Peri-implantitis](#).
- Osteo-integration failure (failure of the formation of a structural link between the bone and the titanium implant).
- Moderate nasal bleeding.
- Problems or difficulties with speech and oral hygiene.

If you have any concerns contact your surgeon or dentist for further advice.

How long do ZI last?

Zygomatic implants have a high survival rate. However, the success depends on the patient's general health and ability to continue with regular maintenance. In order to maintain functionality, patients need to care for their implant by brushing and flossing at least twice a day to keep both the implants and teeth (implant prosthetics) clean.

Regular appointments with a dental hygienist are also recommended to clean areas that can't be reached with a regular toothbrush. If patients follow their dentist's advice and guidelines, zygomatic implants can last a lifetime.

Alternatives to Zygomatic Implants

If there is not enough bone present for implants, regeneration (to create a healthy bone foundation for implants), may be a graft-free immediate solution when there is limited bone availability.

Another alternative is bone grafting. Bone grafting is a process to "add bone mass" where there is a lack of bone. The graft bone material can be sourced from your own bone, or from external bone substitute materials, or donor bone.

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