dental implants 101

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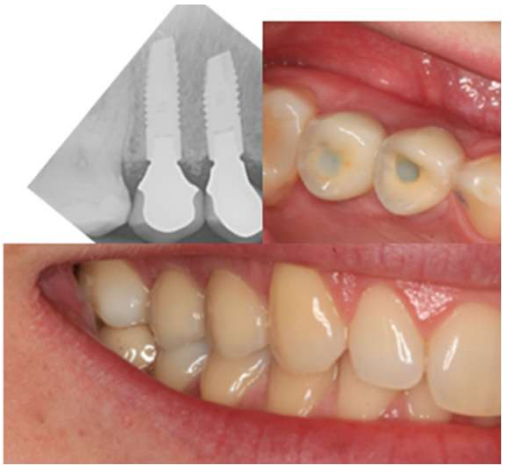
What is a dental implant?

Dental implants are fixed tooth replacements generally made from titanium, zirconium or a combination of both materials.



Dental implants bond to your bone and can be used to support a crown (replacing a single tooth), a bridge (2-4 implants used to replace multiple teeth) or two to six implants to lock into a removable plate or a fixed full arch bridge.

The type, position and number of implants needed is dictated by your requirements and suitability for implants.

For more information about dental implants, visit the EFP (European Federation of Periodontology) website.

https://www.efp.org/for-patients/dental-implants/dental-implants-explained/

What if I need grafting?

Areas where a tooth or teeth need to be replaced have often sustained damage caused by infection or trauma.

Damage usually results in loss of bone and/ or soft tissue requiring replacement with a graft.

Grafting can be in the form of **soft tissue (gum) or hard tissue (bone).**

Soft tissue grafting involves using a small piece of your own tissue or a collagen matrix (FibroGide® produced by Geistlich Pharma®) and transplanting the graft or matrix to the site where it is required.

Hard tissue grafts are usually in the form of a xenograft which comes in a single-use, sterile package. The grafting material that will be used in your procedure is called BioOss® (Geistlich Pharma Australia) and is bovine in origin (sourced from cows farmed in Victoria).

A dissolvable collagen membrane may be used to contain the bone graft which is also developed from cows (MemLok® by BioHorizons or Osteogenics Cytoplast™ RTM).

Synthetic bone graft options are available but are generally not as effective.

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What is a 'sinus lift' procedure?

The maxillary sinus is an air-filled balloon shaped structure which lies immediately above the roots of the back teeth in the upper jaw. Sometimes the bottom of the sinus extends down towards the teeth which reduces the amount of bone available to place an implant.

When there is not enough bone height to place an implant, **a sinus lift** procedure is done in which the lining of the sinus is propped up using a bone graft (see 'hard tissue grafts') to allow for the placement of a longer implant that is surrounded by bone. Usually the implant is placed at the same time as the sinus lift.

In severe cases, a 'lateral wall' sinus lift is needed and referral to an oral and maxillofacial surgeon will complete the sinus graft to increase the amount of bone available to place an implant.

The most common risk is sinus infection, therefore your periodontist may elect to refer you to an Ear, Nose and Throat specialist prior to a sinus lift to make sure your sinuses are healthy enough for this procedure. Your periodontist will advise if you require a sinus lift to place your implant.

I take bone density (antiresorptive) medications for osteoporosis.

The most common bone density increasing medications used for the treatment of osteoporosis are bisphosphonates (e.g. Alendronate, Fosamax, Aclasta, Zometa) or denosumab (Prolia). These medications work by different mechanisms but all result in the slowing down of bone healing and reduction in the growth of blood vessels in your bones.

If you have been taking these medications for more than three years, and need a tooth extraction or surgery in your mouth (involving bone) you are at a low risk of a condition known as medication-related osteonecrosis of the jaw (MRONJ). MRONJ occurs when the bone and gums don't heal properly after surgery.

The way to reduce risk is by ensuring your mouth is free of infections, such as gum disease. Furthermore, antibiotics are used to protect surgery sites during healing, together with the use of antiseptic rinses. Despite these precautions, you have up to a 1 in 10,000 risk of MRONJ.

Does it matter if I smoke or vape if I have a dental implant?

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Smoking and vaping cessation is critical for good healing after dental implant procedures and procedures involving grafting. I recommend **smoking and vaping cessation for at least six weeks prior to and after surgery.** Quitting is always preferable to achieve the best short and long-term outcomes for your implant.

What are the major risks involved with dental implants?

Risks to adjacent structures
Adjacent structures such as teeth, nerves, lymphatics and blood vessels can be damaged when placing a dental implant if they lie close to or within the planned implant site. This can adversely affect sensation and function, potentially permanently.

A thorough preoperative examination and three-dimensional imaging of the proposed implant site is therefore completed for you to minimise the risk of damage to adjacent structures. Furthermore, procedural risks applying to your individual situation will be discussed with you at the time of your consultation. If you have any queries regarding your implant treatment, please feel free to contact Dr Melinda Newnham for further clarification.

Implant failure
Currently dental implants have a high success rate but there remains a small chance of failure. The risk of implant failure is higher in smokers and smoking cessation is recommended. Furthermore, some conditions such as diabetes and osteoporosis may affect implant success. Each case needs to be assessed individually.

Gum disease around implants
Implants can be affected by gum disease (called peri-implantitis) just like teeth. Effective, twice-daily cleaning at home together with regular recall visits to your dental team are necessary to minimise your risk of gum disease around your implant.

Further information

For more information regarding dental implants and the biomaterials used in your upcoming procedure, visit the following websites:

HTTPS://WWW.STRAUMANN.COM/AU/EN/PATIENTS.HTML
HTTPS://WWW.GEISTLICH.COM/DENTAL-PATIENTS/WHAT-ARE-BIOMATERIALS