# Dental Implant Placement Fact Sheet



# Diagnosis:

You may be considering dental implants as a means of replacing a missing tooth or teeth. This procedure is performed over a minimum of three visits to the practice over a minimum of three months. Being that this is not a "quick fix" it is important to understand why the timing of these stages is so important.

#### Pre-surgical work up:

Photos and impressions of your teeth are taken for a Radiographic Guide, Surgical Guide and a Diagnostic Wax Up. Firstly, your impressions are made into moulds for a Radiographic Guide to be made and you will need to visit the surgery for a quick fitting and adjustment. This Radiographic guide must be worn during your Cone Beam scan which is performed by a radiology company in Booragoon, Karrinyup or Subiaco. Your Cone Beam scan is essential to determine the volume and quality of bone in the site where your implant will be placed. Your guide must then be returned to the surgery to be converted into your Surgical Guide to be used on the day of the procedure. Lastly your impressions are used to create a Diagnostic Wax Up. This is a mock up of what your new tooth / bridge will look like after the surgery is completed.

# **Pre-Surgical procedures:**

If bone levels are inadequate to place an implant, you will be referred to a specialist to have bone grafted to the implant placement site. Bone grafts can take anywhere from three months to twelve months to create enough bone for an implant to be placed. When your specialist has confirmed there is a sufficient amount of bone, they will organise and perform your implant placement. In cases where the sinuses (in the top jaw) are very large and there is little bone for the implants, a sinus lift procedure is done.

#### Surgical phases of the procedure:

First Stage Surgery is when the implant(s) are placed into the jaw. This is performed either in the surgery using local anaesthetic on its own or supplementing with intravenous anaesthesia or in a day procedure unit under general anaesthetic. A small incision is made in the gum to be able to insert the implant. Once the implant is placed, you will have dissolvable stitches in place at the incision site. For this procedure, most patients do not require any form of pain relief other than local anaesthetic as the procedure is less onerous than the extraction of your tooth. In rare cases, teeth are placed onto the implant on the day of the surgery or the day after. This depends on the amount of insertion torque (grip) that was used as the implant was inserted into the bone. MOST cases DO NOT have the teeth placed onto the implant at first stage of surgery so it is important to understand you may still have a missing tooth or a metal healing abutment in the space of the missing tooth after this procedure. When the insertion torque is low we cannot place teeth onto the implant as it will make the implant fail. In some of these cases, a small metal button (healing abutment) is placed over the implant to protect it for the next three months. This button sits lower than adjacent teeth to prevent heavy bite forces reaching the implant when eating.

During the placement of your implant, it may be determined that the quality or shape of bone may require the use of an artificial bone substitute called Bio Oss to enhance to be placed at the implant site. This may require Second Stage Surgery to be performed at a later date for your implant placement to be complete.

Second Stage Surgery is performed in cases where the insertion torque is low or a small graft is required at the time of placement. This is a clinical decision made by Dr Orb at the time of surgery. Instead of a healing abutment being placed at the First Stage Surgery, your implant is "buried" under the gum and stitches are used to seal the area of gum together. At the Second Stage Surgery, a

small incision is made in the gum to uncover the implant, a small metal button (healing abutment) is placed over the top of the now exposed implant. This is a simple process that takes approximately 30 minutes and is an additional cost to the original planned treatment.

#### Prosthetic phase of the procedure:

Prosthetics are the final stage of your treatment where a tooth or teeth are made to fit onto your implant(s). This involves taking impressions of the implant(s), adjacent teeth and jaw. These impressions are then sent to a dental laboratory that will make the crown or bridge. There is a minimum of two appointments with a minimum of three weeks for our laboratory to make your crown or bridge. At your final insertion appointment, Dr Orb will examine wear rates on your teeth to determine if you grind your teeth at night (you will most likely not be aware of it). If this is the case, further impressions will be made to make a protective night guard which you will need to wear at night to protect your new investment. A further appointment will be required to have this fitted approximately two weeks later and will be an additional cost.

### Soft tissue adjustment:

As we are dealing with living tissues, we CANNOT guarantee that your treatment will result in what you would deem a perfect result. Sometimes gum tissue around the implants can move in unfavourable directions resulting in less than ideal appearance while we wait for the necessary osseointegration. Patients having implants placed into their "smile line" may require extra appointments to make tissue adjustments with either a special temporary implant crown or even adjustments to their final implant crown. Extreme care is always taken with your soft tissue and for this reason it can be frustrating to not have your tooth placed on the day. It is important to understand that soft tissue adjustments cannot be rushed due to the fragility of the tissue.

### Possible risks and complications:

Like all treatment requiring surgery there are risks involved. These include, but are not limited to; infection, swelling, pain, bleeding (haematoma), damage to adjacent teeth, perforation into the sinus, damage to the lips, damage to the jaw joint or associated muscle spasm, cracking or bruising of the corners of the mouth, bone fractures, accidental swallowing of foreign matter and damage to nerves that give feeling to the teeth lips and tongue causing permanent numbness to these areas.

Although the prognosis for implants is very good (one study showed a success rate of 97%) you need to be aware that the best result ever obtained by researchers is as low as 90% in formal studies. In some cases implants lose integration and can fall out on their own or need to be removed. This loss of integration and potential bone loss in the area can occur during the initial integration phase of bone to implant, or anytime thereafter. It is always possible for a solid implant to fail months or even years after placement.

Should this occur, the implant will require removal and may be resolved with bone grafting and future placement of an implant 12 months later.

#### What to expect after surgery:

- Bruising.
- Swelling.
- Pain short term (uncommon). Pain long term (extremely rare).
- Difficulty with opening.
- Localised tissue irritation
- Stitches in the gum

#### Short term home care:

It is extremely important to look after your implant as it integrates with your jawbone. Immediately after surgery and until your implant is deemed healthy enough to start the prosthetic phase, no heavy forces can be placed on the implant site. Chewing soft food on the opposite side is required for the first three months at least. Application of antibacterial gel twice a day and gentle cleaning of the implant site is also required.

# Long term home care:

Fastidious home care of your dental implant will help increase its chances of longevity and success. Interdental brushes or floss must be used daily to carefully clean around the implant crown to prevent plaque build up or changes to the gum tissue around the implant. Soft tooth brushes should be chosen over medium to hard brushes. The wearing of a night guard will protect your implant from unnecessary forces and will protect any porcelain from cracking. Although this may seem like an inconvenience, the excessive forces that grinding (bruxism). This will not only protect your implant and crown, but will protect all other teeth from wear and cracking as well.

### Necessary follow up appointments:

It is important to understand that an implant placement is a slow process and cannot be rushed. You will be required to attend our surgery for necessary appointments from the monitoring of post operative healing to impressions for the creation of your prosthesis. It is a responsibility of the patient to attend these appointments.

### Commitment to Active Maintenance cleans by your dentist / hygienist:

It is important to understand that implants can fail due to lack of both home care oral hygiene as well as professional cleans at your dental practice. It is imperative that you undergo active maintenance of your dentition by a dentist or hygienist if you have dental implants. If plaque (bacteria) is allowed to access the area under your implant crown, it does not take long for the bacteria to travel down the sides of your implant. This can erode the bone around implants causing the condition Peri-implantitis and failure of the implant. Once the bone has eroded, implants can become loose and even spin inside the jawbone. Your implant will need to be removed and it will be assessed if the site can be salvaged for further implant placement in the future.

# When to not continue with dental implant placement:

There are some current and past medical conditions and their treatments that can affect the ability for your bone to grow onto an implant. It is important to tell Dr Orb if you have previously or are currently taking any bisphosphonates for osteoporosis. *Even if your treatment was completed several years ago*. It is also important to inform Dr Orb of any radiotherapy you may have had to the neck or jaw. Medical conditions such as diabetes, any blood disorders that cause bleeding or even previous facial trauma should be disclosed to Dr Orb before you commence any treatment.

Although a recent study has shown that smoking does not directly have a bearing on the longevity of dental implants, it still has an impact on periodontal disease, gum health and tissue regeneration. All of these factors can therefore have an indirect impact on the success of your implant.