



## **Mr Nick Rutherford MBBS BDS Sc FRACDS(OMS)**

### **Postoperative care and troubleshooting following implant surgery**

Thank you for having implant surgery with me today. The following is a list of postoperative instructions and troubleshooting for any problems you may have after your surgery.

If you have any queries or concerns please do not hesitate to call my rooms on 03 7000 4000 or my after hours pager number for any emergencies on 03 9387 1000.

Please note the first part of this document has simple explanations for common problems you may encounter following surgery and there is a more comprehensive explanation for each area. Simply forward to the area of concern for a more detailed answer.

Just to start remember the implant has two parts, the actual implant in your jaw bone and the healing cap (abutment) screwed into the implant and protruding or lying flush with the level of your gum. This allows the gum to heal correctly around the implant and avoids food packing into the site during healing.

Implants generally take about 8-14 weeks to integrate; this is the process where the bone grows into the titanium surface to make it rigid (osseointegration). Generally I get a feeling how tight the implant is at insertion and also the quality and volume of bone. This determines when you return to check the implant is solid by a test known as the "torque test". This is done by inserting a small torque wrench onto the implant and checking it can resist a force of 25 Ncm, my fingers generate about 15Ncm. It's a simple process that only takes about 5 minutes as an appointment.

Once the torque test is complete then you see your dentist or prosthodontist for the crown or bridgework construction. So remember I am foundation guy and they are the jeweler on top.

### **Postoperative Review**

#### **1. You will usually have a routine follow up appointment at about 2-3 weeks.**

My staff will contact you to arrange a suitable date at one of my consulting premises close to where you reside. Occasionally I may request that I see you for an early review to check if your surgery has been complex. If it is your first implant I normally see you at about 2-3 weeks postoperatively to check all is going well.

If you are an experienced implant patient I may opt to see you at around 8-12 weeks to check the implant doing a torque test as most implants heal quickly. I will advise you on the day if this is the case but if you have any issues please call my rooms for an earlier review.

### **Normal Postoperative Events**

**Numbness:** Your mouth and jaws will be numb for approximately 12-24 hours after surgery due to local anaesthetic being administered around where your surgery has been performed. It is important to make sure you have taken pain relief before 12 hours so that by the time the local anaesthetic is wearing off you have adequate pain relief. (See Appendix 1 for a more detailed explanation)

**Bleeding:** It is normal for your wounds to ooze a bit after surgery despite stitches placed. This will often make your saliva look a bit red. This is completely normal but can often look like a lot when it dilutes in saliva. Do not spit out the blood as this only increases the bleeding. Most of this bleeding will settle after a few hours.

**If you have troublesome bleeding the best option is to bite onto square gauze or an old handkerchief / cut tea towel for at least 20 minutes. Don't keep taking it out and checking, you need firm constant pressure directly over the wound area. Often it is best to watch TV or read a book and time it. It is also important to sit in a chair and relax as moving around only encourages bleeding. If this fails to alleviate the bleeding after numerous attempts and it is a big amount of blood filling your mouth please call my rooms during normal hours on 03 7000 4000 or my after hours emergency pager service on 03 9387 1000 (See Appendix 2 for a more detailed description)**

**Stitches:** These are dissolvable and should fall out after 1-2 weeks. Occasionally they can persist for a while and if they are annoying you please return to see me to have them removed. If you swallow them this is no problem. (See Appendix 3 for a more detailed description)

**Pain:** It is normal for you to have pain for approximately 3-5 days during which time you should take the pain relief prescribed by the anaesthetist or myself if a local anaesthetic. Most patients after implant surgery can wean or cease their pain relief after 4-5 days down to Paracetamol, Ibuprofen. Pain that is increasing after 4-5 days is a bad sign and may indicate infection. If this is the case please call my rooms for a review as its best to get onto these problems early.

**Eating and Diet:** On the first day you should return home and have a liquid diet such as soup, jelly, custard, smoothies and yoghurt. On the following day you can commence soft foods such as well cooked meat, pasta, noodles and vegetables. It's best that you avoid chewing directly over the implants for a couple of weeks even if they feel firm and comfortable. After one week most patients who have had surgery can commence normal foods but still be careful for about another week to not accidentally damage your healing wounds.

**Mouthcare:** On the first night of your surgery you can brush your teeth as best you can to freshen your mouth but do not start any mouth rinses until the following day. The following day you can use salt water rinses ( 1-2 teaspoons of salt in a small glass of luke warm water) or alternatively any of the commercially available mouth rinses such as Savacol, Chlorhexidine, very diluted Listerine etc. You should do your mouth rinses 3-4 times a day for 1-2 weeks if possible.

After 1-2 weeks you can commence brushing directly over the implant if comfortable. Often patients like to use a very soft tooth brush or alternatively place it under hot water to soften the bristles. Don't be too aggressive too early so it is a bit of trial and error early on but please use caution.

**Swelling:** Swelling is a normal consequence from surgery and usually peaks at about 48 hours and most of it has resolved by 5-7 days. To reduce swelling apply icepacks to your face using a sports gel pack or frozen bag of vegetables for approximately 15 minutes on and off over the first 48 hours. This also has the added benefit soothing the area and many patients feel it reduces their pain. Also remember to sleep up at about 20-30 degrees using pillows as lying flat encourages swelling for the first 3-4 days.

Swelling that returns after one week is usually a sign of infection so you will need to make contact with my rooms if this occurs. Don't go to your GP or local dentist.

**Bruising:** Some patients experience bruising later in the week of surgery. It seems to vary from person to person and does not correlate with the complexity of their procedure. It can range from simply along the jaw line or into the neck and rarely can extend with gravity to the collarbone area which is where the term "the dentist bruised my chest taking out my wisdom teeth" arises. The bruising should resolve quickly with 1-2 weeks.

**Exercise:** Most patients can resume exercise after 5-7 days. The main danger is bleeding by raising your blood pressure and vascularity to the head and neck area. It is important that you rest in the first 48 hours though.

**Normal wound healing:** Your wounds will initially feel puffy and you will feel the ends of the stitches in the wound. After the stitches fall out the swelling in the wound will go down and you may feel it heal flat. Often the gum can swell up over the top of the healing cap so they feel like they have disappeared but over the next 2-3 weeks you will feel them again if you could early post surgery.

When you look at the wound it often looks a little white in the first few days due to more keratin being formed as part of normal wound healing. Sometimes patients think this is infection but it is normal and will disappear after a few days. (See Appendix 4 for a more detailed description)

**Antibiotics:** You will be sent home with a five day course of oral antibiotics. Occasionally they can cause nausea, vomiting or diarrhoea. If this is the case please cease taking them.

**Constipation:** A side effect of opioid containing pain relief such as Panadeine, Mersyndol and Endone are that they can cause constipation. It's important to have a high fluid intake and plenty of fruits and vegetables. If you experience constipation a simple laxative such a Coloxyl can be purchased over the counter at your pharmacy.

### **Reasons to be concerned**

**Pain increasing: This is often a sign of infection. An infection usually occurs 1-2 weeks after surgery with return of swelling in one site, bad taste or discharge, pain and fever.**

**Please call my office or after hours emergency pager number if this occurs as I will need to see you either that day or the following morning for a review. Often I can call a local pharmacy to arrange an antibiotic to be dispensed so these can be commenced promptly.**

**Healing Cap Loosening:** At surgery I try to tighten down the healing cap ( abutment ) into the implant very firmly so it doesn't loosen very often. Occasionally you may feel the cap loosen or even come adrift. Do not panic if this is the case as I can see you and reinsert it. If you leave it too many days the gum will rapidly grow over the implant so best to try and see me in the first 24-48 hours if possible. Occasionally I may opt to leave it off the implant if the gum has grown over the top and reinsert it when you have your torque test to see if the implant has healed and ready for your crown.

**Implant falls out:** If you feel the implant loosen and extrude from the jaw this is a bad sign. It can occur as a result of infection or failure of the bone to grow into the implant surface (osseointegrate). It is an uncommon event but if it does occur please call my office for a review. Although incredibly disappointing at the time it is a good thing in the long term as the implant may have been compromised and better for it to happen early rather than in 6 months when the crown has been constructed and paid.

### **Reasons to contact my rooms for a review**

**Bleeding that is not responding to local pressure to the wound as described above. It's not common to have serious bleeding after wisdom teeth removal and most of the time by putting direct pressure over the wound will stop the bleeding. If you have done this for at least 5-6 times and it is not working and the blood is filling your mouth please call my pager number after hours on 03 9387 1000 or rooms in hours on 03 7000 4000**

**Swelling returning after a few days indicates an infection and needs review and antibiotics prescribed.**

**Pain increasing after a few days indicates a possible infection so please call my office for a review appointment.**

**Appendix1: Local Anaesthetic given at surgery.** At your surgical procedure a long acting local anaesthetic has been administered at the site of the surgery. This typically makes the area of surgery numb for 12-24 hours. Your cheeks, lips and tongue will be numb for that period as I have given a nerve block that covers those areas. In the upper jaw it is usually closer to the site of the actual surgery.

It is very important that you don't accidentally chew your lips, tongue and cheeks whilst numb as this can cause painful ulceration at the site of trauma. Children are particularly prone to this as they attempt to feel how numb it is so bite into the soft tissues, so this needs to be emphasized.

Ongoing numbness can mean I have worked close to a nerve, ongoing meaning greater than 24 -72 hours. Remember that this doesn't mean permanent numbness as whenever you work close to a nerve bundle it typically stops working for a period. Tingling, electric pulses and buzzing are signs of nerve regeneration. As a general rule the older the patient the longer it can take for the nerve to recover if seen at surgery.

For pain relief after surgery its best that we capture the period of time the numbness is wearing off with you taking reasonable pain relief. So for example if you have had your implant surgery in hospital I

would expect you to start having pain at about 8-12 hours postoperatively as the local anaesthetic starts to wear off. I would recommend you take the pain relief prescribed even if you have no pain at about 6 hours postoperatively so they are working effectively before the numbness wears off.

### **Appendix 2: Postoperative Bleeding**

As stated above it is normal for slight bleeding post surgery for a few hours. Direct pressure with gauze is the best way to control this oozing. So simply bite firmly on the gauze provided. It is not unusual for some minor persistent oozing for the first night, so a good idea is to put an old towel over your pillow as the bloody saliva that trickles out of your mouth can easily stain your pillow.

Very rarely you may experience a decent bleed post surgery that means you need to call me on 03 93871000. This would be after a few attempts of putting pressure over the wound. The reason for the bleeding can be a soft tissue bleeder or alternatively a vessel in the bone. At surgery I am very careful to make sure that there is not obvious bleeders but at the procedure most vessels spasm so you can occasionally miss one. To fix a serious bleeding issue can mean numbing you up again with local anaesthetic and placing more sutures or packing the wound. Despite sounding complex this is normally a very easy procedure.

Occasionally at about 7-10 days post surgery, if you have an infection it can present with a bleed with bloody saliva. If this is the case please make contact as you will need to take antibiotics and possibly have some further stitches placed.

### **Appendix 3: Stitches**

Stitches are used at surgery to control bleeding and bring the wound edges together to speed up healing. The ones used in the mouth generally fall out after about 1-2 weeks but can persist in some people for longer than that period. If they are still present at 2 weeks, placing a small blob of toothpaste on your finger and gently rubbing them usually causes them to fall out.

Stitches outside of the oral cavity are normally nylon based and need me to remove them at about one week. An appointment will be made with you to have this performed.

Occasionally a stitch comes loose early. Don't panic if this occurs as the wound will still heal very well and I generally place enough stitches so if one does come away it is no concern.

### **Appendix 4: Normal Healing**

When surgery is performed to place an implant there is damage to the bone and soft tissue. This means that the bone and soft tissue needs to heal and regenerate. Early during the healing phase this fills with a blood clot, which subsequently has inflamed healing tissue present, called granulation tissue and then finally new bone formation. The soft tissues above the bone become inflamed and new tissue grows over the bone.

It normally looks a bit bizarre in the wound for about the first week. It is normal for it to appear whitish due to extra keratin being made as normal healing, a bit like the flaky skin you get around a cut as it heals on your skin. Due to the mouth being moist it looks quite white but this is normal.

Whilst the bone heals where surgery has been performed there can be a divot or hole in the gum. The base is the healing tissue that will become bone with time. During that healing time it is not unusual to get food in the site. You can use mouthwash, saline or even water to flush it out. Over about a 2-3 week period this usually disappears.

In older patients the bone healing is a bit slower following surgery. The danger is if you are getting food caught in the site and not flushing it out it slows the healing process so please keep your hygiene of the site very good.

#### **Appendix 5: Antibiotics during and post surgery**

The mouth contains many bacteria that love to infect the site of surgery, usually about day 5-7 post procedure.

During the surgery you are given antibiotics via the IV cannula placed by the anaesthetist and subsequently oral antibiotics for home for 5 days. The evidence suggests that this can reduce your chance of a postoperative infection. It is my recommendation that you do to prevent an infection especially with implant surgery.

Sometimes antibiotics can make you sick, e.g. nausea, vomiting, diarrhoea. If this is the case please stop them immediately and the above symptoms should settle. Also they can cause swelling or a rash, typically on your trunk, arms, neck or face. If this occurs it's a sign of an allergy and please cease them immediately. If the rash is itchy and annoying or blistered like welts please take Claratyne or Telfast and these are antihistamines and can reduce settle the rash and symptoms quickly.