TRIGEMINAL FOUNDATION NERVE INJURIES

Helping to prevent, educate and manage

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Advice for patients undergoing dental implant treatment

The questions you should have answered before considering implant treatment are;

Do I need a dental implant? For functional purposes you may not need all your back teeth.

How long will my implant last? There is recent evidence that the life expectancy of dental implants is around 60% over 10 years, and this is dependent on many factors.

Will the NHS pay for my treatment? Patients who have; missing teeth from birth (cleft lip /palate, hypodontia), lost teeth due to trauma, cancer surgery or patients who have no teeth and cannot have conventional dentures may be eligible for NHS care however this may vary from region to region based on the demands of the population and local services.

Who do I go to? Great care must be taken when selecting your clinician (avoid non specialists for complicated treatments and if you are in doubt contact the general dental council. We also suggest caution in seeking 'cheap' implant treatment abroad!). Various dental specialists can carry out implant work most clinicians committed to implant related continued professional development will belong to one of several specialist societies and a good team that is required to deliver the best patient care.

Am I medically fit enough for dental implants? Because dental implants are 'metal foreign bodies' there are some medical conditions that compromise healing and the life span of implants. These include patients who; are smokers patients, have poor oral hygiene, on bisphosphonate medication, may have compromised healing including;

- o Alcoholism
- o Cirrhosis
- o Diabetes Mellitis type 1 and 2
- o Renal failure
- o Malignant tumours
- o Leukaemia Lymphoma Myeloma
- o Collagen disease
- $\circ \mathsf{HIV}$
- o Pagets bone disease
- o Medicated on Steroids/ Immuno suppressants/ chemotherapy for cancer or organ

Do I have enough bone for implants? You may need additional bone grafts for implant treatment.

What are the risks? Any decision that you make in life has risks and or benefits. As a patient undergoing dental implant treatment you must be made aware of the potential risks and benefits in order to make an informed decision.

Nerve injuries related to dental implant treatment is rare but a significant problem for patients affected by them with the majority suffering from numbness altered sensation and pain in some cases permanently. Any altered sensation and or pain in the orofacial region may interfere with speaking, eating, kissing, shaving, applying make-up, tooth brushing and drinking, in fact just about every social interaction we take for granted causing severe psychological effects. Link to BDJ paper

What should the treatment involve for dental implant treatment?

Before surgery

- o Your reasons for requesting, and your expectations, of treatment should be fully explored by the clinician
- o You should be **advised regarding alternative treatments** before you go ahead with implants (other possibilities including no treatment, dentures, crown and bridge work)
- o You should have at least 2 visits including **written and explicit consent** that you should fully understand before signing and all your questions answered (see link to consent sheet)
- o You **should be assessed using Xrays** using generally DPT (large rotational Xray) to see if you have enough bone for your implant to be placed.
- o If there is not enough bone or the nerve in your lower jaw is close to the intended site of surgery- special scans are requested (cone beam CT scans) to see exactly where the lower jaw nerve is and whether there is enough bone for the implant. Thus additional scanning (cone beam CT) has now been introduced to many specialist practises and dental hospitals will provide low radiation dosage and improved imaging for planning implant treatment. Be aware of the risks of additional radiation which should be minimised in accordance with radiation regulations.
- o **Based on measurements** made in these Xrays and or scans you should be advised by your clinician about the recommended number, type, length and position of the implants
- o When you fully understand the proposed treatment and have had your questions answered then you should be prepared to sign a consent form (and keep a copy). A suggested consent form for implant treatment is available on this website.

During treatment

o Your surgery is usually undertaken over several appointments over 3-6 months. Appointments include; one for placement of the implant, one for uncovering and later appointments for loading and restoring (adding teeth) plus possible review appointments for maintenance.

- Pre operative antibiotics are recommended before your surgery on the day (2g Amoxicillin orally
 hour before surgery.
- o If **you experience severe pain or bleeding during** or immediately after your implant surgery this may be an indication of nerve injury
- o Your dentist may decide to delay the placement of the implant for 2-3 days

After treatment

- You should expect some discomfort that may last several days but usually the pain is minimal and resolved after 48 hours
- o You may have some stitches in your mouth that may be dissolving or require removal
- o Your **dentist should contact you 8-12 hours after surgery** to ensure that the local anaesthetic injections have worn off and that the feeling has returned to you lip and mouth.
- URGENT treatment (within 30 hours) is indicated in implant related nerve injuries and the implant may require removal http://trigeminalnerve.org.uk/.
- o **Pain management** should be regular oral 6 hourly doses of Ibuprofen (400-600mg) with Paracetamol (500mg -1g also known as Acetaminophen in the US) as long as you are not allergic or contraindicated to take these drugs. This combination of the pain killers is the optimum post surgical method for pain control.
- o Keep your mouth exceptionally clean and use Chlrohexidine containing mouth rinses as well as brushing your teeth with your normal fluoride toothpaste
- o Your clinician may give you **additional antibiotics** to prevent infection if you have had additional bone grafts or bone substitutes placed during surgery
- o If there is altered feeling and or numbness in your lip after the local has worn off, you may need to have your **implant removed swiftly** to maximise nerve recovery. There is to date no evidence for providing high dose steroids and NSAIDs to minimise neural inflammation instead of the above but may be useful in adjunct which your dentist may prescribe
- If you have been nerve injured? Signs and symptoms What you may be experiencing

Trigeminal nerve injuries can cause episodes of intense, stabbing, electric shock-like pain in the areas of the face where the branches of the trigeminal nerve are distributed — the lips, eyes, nose, scalp, forehead, upper jaw and lower jaw. Sometimes you may notice pain with touch or when a cold breeze hits your face. In addition eating, speaking, drinking, brushing your teeth, shaving or applying makeup may all be difficult because of the changes in feeling.

- o Ideally these injuries are managed early postoperative but if your nerve injury is persistent you may seek referral to specialist clinic. http://trigeminalnerve.org.uk/
- o Once you have nerve injury confirmed you may or may not want to register a complaint. This can be done directly to your dentist or doctor OR
- using the NHS link patient choice complaint s system
 http://www.nhs.uk/choiceintheNHS/Rightsandpledges/complaints/Pages/NHScomplaints.aspx

If you want specifically to register that you have developed a nerve injury after dental care then use the Care Quality Commission

http://www.cqc.org.uk/sites/default/files/media/documents/rp poc1b 100096 20100723 v3 00 pape r_death_notification_for_publication_201010071217_2.doc

o Registering your injury with or without complaint will help national data being collected and assist us with our research. http://trigeminalnerve.org.uk/

Useful inks for dental implant patients

A. Guidelines for implant treatment

1. Implant guidelines RCS England – Updated version press BDJ and RCS http://www.rcseng.ac.uk/fds/publications-clinical-guidelines/clinical_guidelines/documents/ncg97.pdf

Produced guidance on prioritisation for the selection of patients to receive treatment with dental implants within the NHS in the UK

2. Consent - Medical Protection

http://www.dentalprotection.org/Default.aspx?DN=8d771746-065f-4862-80e9-c96c0318d731

3. Consent Patient choices

http://www.nhs.uk/conditions/Consent-to-treatment/Pages/Introduction.aspx

- 4. EAO radiographic guidance for implants http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0501.2012.02441.x/pdf
- 5. Managing patients on bisphosphonates for oral surgery

http://www.sdcep.org.uk/index.aspx?o=3017

B. Implant specialist societies

- 1. ADI Association of Dental Implantology UK http://www.adi.org.uk/members/index.htm
- 98 South Worple Way London SW14 8ND Tel: 020 8487 5555 Fax: 020 8487 5566
- 2. ITI International team for Implantology http://www.iti.org/

ITI Center, Peter Merian-Weg 10, 4052 Basel, Switzerland

Phone +41 61 270 83 83 Fax +41 61 270 83 84 iticenter@iticenter.ch

3. EAO European Association for Osseointegration http://www.eao.org/about-us/contact

287 Avenue Louise – 4th floor, 1050 Brussels, Belgium

Tel: +32 2 643 20 49 Fax: +32 2 645 26 71 Email: eao@congrex.com

C. Dental Professional links

General dental council

http://www.gdc-uk.org/Pages/default.aspx

British Dental Association

http://www.nature.com/bdj/index.html

Medical Protection Society

http://www.medicalprotection.org/uk/

Medical Defence

http://www.the-mdu.com/