

Pentoxifylline and Tocopherol (Vitamin E) for Osteradionecrosis

Introduction

You have been prescribed, or are being considered for, pentoxifylline and tocopherol (vitamin E). These medications are prescribed to manage osteoradionecrosis (ORN) of the jaw. This is a condition caused by reduced blood supply to the bone which leads to bone tissue damage or poor healing.

The medications can be used to treat active ORN or to reduce the risk of developing ORN in patients who have previously had radiotherapy and now need dental extractions.

This leaflet will outline further information about these medications, how to take them and the possible side effects.

Pentoxifylline

Dose	400mg, twice daily with food
Indication/benefit	Improves blood flow, reduces inflammation and may reverse tissue fibrosis (scarring)
Side effects	Nausea, dizziness, headache, flushing
Rare significant side effects	Bleeding, allergic reaction, low blood pressure. Please stop the medication immediately if you are experiencing any of these and discuss with a medical professional

Tocopherol (Vitamin E)

Dose	1000iu, once daily with food
Indication/benefit	Acts as an antioxidant to protect tissues. May help reduce inflammation and fibrosis
Side effects	Mild stomach upset, headache, fatigue
Rare significant side effects	Increased bleeding, diarrhoea Please stop the medication immediately if you are experiencing any of these and discuss with a medical professional

What does the evidence say about these medications?

This treatment is considered experimental as there are currently no published randomised controlled trials (RCTs) to date. However, published cases have shown promising results in using these medications to treat osteoradionecrosis.

A large study called the 'RAPTOR' trial is currently in progress to further investigate the treatment's effectiveness.

More information about the trial can be found by entering the website address below into your internet search or by scanning the QR code:



<https://raptorstudy.org.uk>

Dosing regimen prior to a dental extraction

You may have been prescribed pentoxifylline and vitamin E to take on a short-term basis (usually 4 to 12 weeks), alongside an antibiotic before and after your dental extraction. The combination of these medications will reduce the risk of ORN. You will be informed by your medical team if this applies to you.

- Start your Pentoxifylline 400 mg (twice daily) and Vitamin E 1,000 IU (once daily) 7 days before the date of your scheduled dental surgery.
- Take the prescribed antibiotic starting 2 days before your dental extraction. You will then continue to take the antibiotics until the course is completed.

Additional information

Before you are prescribed the pentoxifylline or vitamin E, you will be asked to have a blood test taken (either within the hospital or with your GP), to check your liver and kidney function.

It is most likely that you will be asked to arrange further blood tests with your GP to monitor your liver and kidney function every 8 to 12 weeks, while taking these medications.

Patients who have had a recent heart attack, history of bleeds on the brain or eyes, severe heart conditions or significant liver or kidney disease are not suitable to take these medications.

Contact information

If you have any questions or concerns, please contact your clinical team to discuss.

Oral Maxillofacial Surgery (OMFS) outpatient department,
Gloucestershire Royal Hospital
Great Western Road
GL1 3NN

Tel: 0300 422 3197

Monday to Friday, 09.00 am to 5.00 pm

Content reviewed: September 2025

Shared Decision Making

If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment.

Ask 3 Questions

To begin with, try to make sure you get the answers to three key questions if you asked to make a choice about your healthcare.

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?



These resources have been adapted with kind permission from the MAGIC Programme, supported by the Health Foundation.

***Ask 3 Questions** is based on Shepherd HL, et al. Three questions that patients can ask to improve the quality of information physicians give about treatment options: A cross-over trial. Patient Education and Counselling, 2011;84: 379-85



<https://aqua.nhs.uk/resources/shared-decision-making-case-studies/>



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GHPI1927_09_25
Department: Oral Maxillofacial
Review due: September 2028
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