

Having a dental cone beam CT scan

This leaflet aims to answer your questions about having a dental cone beam computerised tomography (CT) scan. It explains the benefits, risks and alternatives, as well as what you can expect when you come to hospital. If you have any further questions, please speak to a doctor or nurse caring for you.

What is dental cone beam CT scan?

A dental cone beam (CB) CT scanner uses x-rays and computer-processed x-ray information to produce 3D cross-sectional images of the jaws and teeth. It is a smaller, faster and safer version of the regular CT scanner. Through the use of a cone shaped x-ray beam, the radiation dosage is lower, and the time needed for scanning is reduced.

The machine moves around your head in a circular motion in a similar way to the panoramic dental radiography unit which is commonly used in dental surgeries and hospitals, which you may have already experienced.

What happens during dental cone beam CT (CBCT)?

You will be seated in the CBCT machine. Your head will be carefully positioned and you will be asked to keep absolutely still while the scan is taken. We will ask you not to swallow, talk or move your jaw during the exposure. The positioning takes a few minutes, but each scan takes less than a minute to perform. You may need more than one scan depending on the reason for your examination. The whole procedure should not take more than 30 minutes.

Why should I have a dental CBCT?

The scan will give us detailed information which cannot be obtained from normal x-ray examinations. For example, if you are being considered for dental implants or other special procedures, it enables us to assess the exact shape of the bone.

What are the risks?

CBCT scans are low-dose examinations and give an x-ray dose to the patient that is normally considerably less than a medical CT scan.

A normal **CT** scan of the jaws at our hospital gives a radiation dose equivalent to approximately 63 to 154 days of background radiation (the x-radiation constantly present in the environment).

A **CBCT** scan of the jaws would be comparable to approximately 6 to 30 days of normal background radiation. So a CBCT scan of the jaws will give approximately one fifth to one tenth of the dose of a conventional CT scan of the same area.

As with any x-ray examination, please inform the radiographer if you might be pregnant.

Are there any alternatives?

Yes – medical CT is the alternative, but this delivers a greater radiation dose. Another alternative is not to undergo the x-ray examination at all, but without this examination it may not be possible using traditional dental x-ray pictures to assess the bone accurately enough to allow your treatment to be performed safely.

How can I prepare for dental CBCT?

Before your CBCT you will be asked to remove glasses, dentures, hearing aids, earrings, tongue and nose studs, necklaces, hair clips and any other metal accessories that may affect the scan. This is not an examination that requires any injections or special preparations.

If you are having the scan for dental implant planning, you may be asked by your dentist to bring a localisation stent with you. This is a special 'plate' which you will wear rather like a denture, containing markers to guide our x-ray examination. You will only need to wear this during the scan.

Proface photographic scanning

A photographic scan of the face may occasionally be carried out with your CBCT scan. This will only be performed following discussion with you, and with your consent. It is performed in the CBCT machine with the lights dimmed in the room. The machine gives off flashing lights during this special type of scan. You will be asked to stand very still and keep your eyes open during this photographic scan. This part of the examination does not use x-rays.

Consent – asking for your consent

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.

Will I feel any pain?

This procedure is not painful, but you will need to remain still for the duration of the scan. If you are claustrophobic please mention this to the radiographer so that they can offer you appropriate support and advice.

What happens after I have had the CBCT scan?

After the examination you will be able to go home straight away.

The consultants will write a report from the scan, and it will be sent through to the dentist who has referred you to us for the examination.

What do I need to do after I go home?

No special aftercare is necessary, you will be able to eat, drink and carry on all your normal activities.

What should I do if I have a problem?

In the unlikely event that you experience any problems following this examination, you can contact the department (details at the end of this leaflet).

Outside these hours if you are worried you should go to your nearest Emergency Department (A&E).

Will I have a follow-up appointment?

We do not usually require you to have any follow-up appointments in our department. Normally you will have a follow up appointment arranged by the department or dentist who referred you to us.

Contact us

Dental scanning department, **t:** 020 7188 1872, Monday to Friday, 9am to 5pm.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch.

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

Get involved and have your say: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, please get in touch.

t: 0800 731 0319 **e:** members@gstt.nhs.uk **w:** www.guysandstthomas.nhs.uk/membership

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