

# Having a dental cone beam CT scan

This leaflet will answer some of 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 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. By using 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, like the panoramic dental radiography unit which is commonly used in dental surgeries and hospitals, which you may have already experienced.

## During the 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 might need more than one scan depending on the reason for your examination. The whole procedure should not take more than 30 minutes.

## The benefits of a CBCT

The scan will give us detailed information which cannot be obtained from normal X-rays. For example, if you are being considered for dental implants or other special procedures, it allows 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 about 63-154 days of background radiation (the X-radiation constantly present in the environment).

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

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

## **What are the other options?**

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

## **How you can 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 sometimes be done with your CBCT scan. This will only be performed after discussion with you, and with your consent. It is done in the CBCT machine with the lights dimmed in the room. The machine gives off flashing lights during this 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. Your referring dentist has already discussed with you why you need a CBCT scan. This leaflet will help you to understand the examination and any associated benefits, risks and alternatives. If you change your mind at any time please let us know immediately. Your wishes will be respected at all times. If you would like to read our consent policy, please tell a member of staff.

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

## **Will you 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.

## **After your 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 to the dentist who has referred you for the examination.

## **What you need to do after you go home**

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

## What you should do if you have a problem

In the unlikely event that you experience any problems after this examination, you can contact the department (details below).

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

## Follow-up appointments

You do not usually have a follow-up appointment in our department. Normally you will have a follow-up appointment with whoever referred you to us.

### Contact us

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

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit, **w:** [www.guysandstthomas.nhs.uk/leaflets](http://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, Monday to Friday, 9am-5pm

### 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](mailto:pals@gstt.nhs.uk)

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

### NHS 111

This service 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      **w:** [www.111.nhs.uk](http://www.111.nhs.uk)

### NHS website

This website gives information and guidance on all aspects of health and healthcare, to help you take control of your health and wellbeing.

**w:** [www.nhs.uk](http://www.nhs.uk)

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