



## Your child is having a CT scan with sedation: information for families

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A CT scan (Computed Tomography) uses x-rays and computers to take pictures of the internal structures of your child's body. This information sheet from Great Ormond Street Hospital (GOSH) explains about having a CT scan at, how to prepare for it and what care your child will need afterwards. An Easy Read information sheet about the scan is also enclosed for your child. If you have any questions, please call the Radiology Department reception on 020 020 7829 8615.

The CT scanner is a large doughnut-shaped machine with a hole in the centre through which a special bed can move.

The scan can last anywhere from five minutes to 20 minutes, depending on the area and complexity of the scan. Although the bed will move through the scanner, it will not come into contact with your child.

Some children need to have an injection of 'contrast' a liquid that shows up as a different colour on the scan. If your child is likely to need contrast, we will put local anaesthetic cream on their skin to make it numb before the injection.

If your child is apprehensive or scared of needles or injections or the scan itself, please telephone the Radiology play specialist before the appointment.

### Why does my child need sedation for the CT scan?

Some children find it difficult to lie still for the scan – either because of their age or their medical condition – so we might suggest they have sedation for the CT scan. We assess all children to see if they might benefit from sedation. Your appointment letter will state whether your child is

having sedation so you can follow the instructions below to prepare them.

Some children need intravenous (into a vein) sedation as well as sedation medicine to swallow or sniff. This is given at the same time as the contrast injection.

### Are there any alternatives?

Your child may need this scan to show the doctors detailed pictures of part of their body. Various types of scan such as ultrasound and x-rays can show the size and shape of parts of your child's body but not in as much detail as a CT scan. The information from the scan is then used to help with diagnosis and plan their treatment.

### When you receive your appointment letter

If you are unable to keep this appointment, please inform the department as soon as possible beforehand. Sometimes, we can offer the appointment to another child on the waiting list.

As so many children and young people need to use our services, we have had to introduce a policy where if a child cancels or does not attend two appointments in a row, we will close their referral and inform their GOSH consultant.

## **Before the appointment**

If you are pregnant or think you could be pregnant, please let us know. The x-rays used in the CT scan could harm your unborn baby, so we would advise bringing another adult to come into the scanning room with your child.

If your daughter is 12 years old or older, we will ask her about her periods and any possibility that she could be pregnant.

## **Preparing for the sedation**

The evening before the scan, reduce the amount of sleep your child has by allowing them to go to bed an hour later than usual.

On the day of the scan, wake your child at least one hour earlier than usual and try to keep them awake on the way to GOSH.

It is important that your child does not eat or drink anything for a few hours before the sedation. This reduces the risk of stomach contents entering the lungs during and after the procedure.

You will be informed the night before the procedure of the time that your child should be 'nil by mouth' – in other words, have nothing to eat or drink before the sedation.

It is equally important to keep giving your child food and drink until those times to ensure they are not thirsty or hungry. This may involve waking your child in the night to give them a drink which we recommend.

## **Important**

The person bringing your child to the scan should have 'Parental Responsibility' for them. Parental Responsibility refers to the individual who has legal rights, responsibilities, duties, power and authority to make decisions for a child. If the person bringing your child does not have Parental Responsibility, we may have to cancel the scan.

## **The day of the scan**

When you arrive at the hospital, you should report to the Otter Imaging department. You are welcome to stay with your child until they are asleep and then again when they are in recovery until they are ready to go home.

Your child will be admitted to the unit where they will be seen by a sedation nurse. We will ask you to give permission for the CT scan under sedation by signing a consent form. The nurses will have decided on the order on the list the night before and will have staggered your arrival time based on this.

Your child will have the sedation medicine as a liquid to swallow, a nasal spray or intravenously about 20 to 45 minutes before the scan is scheduled.

## **The scan**

We will give your child a hospital gown to wear – wearing clothes containing metal such as zips or buttons can interfere with the scan.

When your child is getting sleepy, they will be put onto the scanner bed, either head towards the scanner or feet first, depending on the part of their body being scanned. A nurse will stay with your child throughout the length of the scan and monitor them.

Once your child is in the correct position, the radiographer will go into the control room to operate the scanner. They will move the bed into the scanner – it will not touch your child – and the scan will start. The scanner makes some quiet whirring noises as it takes the pictures.

A radiologist (doctor who specialises in imaging) may come into the room to check the pictures and confirm they are good enough. When the scan has finished, the radiographer will move the bed out of the scanner so your child can be moved to the recovery area to wake up from the sedation.

Next they will be taken back to the ward to recover. We will call you back at this point so that you can be with them when they start to wake up. You should be prepared to stay in the hospital until your child is fully awake and has had something to eat and drink. Most families are able to go home a couple of hours or so after the scan.

### **Radiation and risk**

It is our legal duty to tell you about the potential risk of having a CT scan.

CT scans are only ever requested if the benefits outweigh the risks involved. CT does use radiation, but the dose is kept as low as possible. This is because the radiographers are specially trained to obtain the best quality pictures while using the lowest amount of radiation possible.

### **Sedative medicines given**

**Chloral hydrate** – This promotes sedation and sleep by acting on certain areas of the brain. It is given orally. Possible side effects include: slow breathing rate, vomiting, irritability and prolonged sleepiness.

**Dexmedetomidine** – This provides sedation without risk of respiratory depression and gives cooperative or semi-arousable sedation. This is given by the intravenous or intranasal route. Possible side effects include irritability, prolonged sleepiness and low blood pressure. You can reduce the side effects of low blood pressure by encouraging your child to drink plenty of fluids in the hours after the scan.

### **After the scan**

When your child has recovered fully from the sedation and has had something to eat and drink, you will be able to go home.

A radiologist will send a report about the scan to your child's doctor in time for your next appointment. If you have not been given a follow up appointment to see your consultant, please contact their secretary after two weeks.

### **When you get home**

- Children are generally sleepier than usual for 24 hours after a scan with sedation. This is because the effects of the sedative last for about a day. Let your child rest and sleep for the rest of the day.
- If your child complains of feeling dizzy or faint, basic first aid is usually helpful:
  - Sit them down and put their head between their knees or
  - Lie them down with their legs raised
  - Offer them a sugary drink
- If your child is unduly sleepy or difficult to rouse, make sure they are in a safe position on their side and telephone your family doctor (GP).
- Make sure that your child can tolerate a juice drink before offering anything to eat. Give milk only if your child does not feel sick or has vomited.
- Your child may have mood changes which can make them irritable. This is temporary.
- Keep a close watch on your child until they are back to normal. Do not leave them with an inexperienced carer.
- If your child is taking any medications, please give this as normal.
- Your child should be well enough to go to school a day or two after the scan.

**If you have any questions, please call the Radiology department on 020 7829 8615. You can call the Radiology play specialist on 020 7405 9200 extension 0301.**

## Having a CT scan under sedation



You are coming to hospital for a CT scan. A CT scan makes pictures of inside your body. This helps the doctors work out how to look after you.



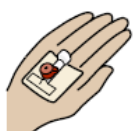
You will have sedation (said: sed-ay-shun) for the scan. This means you will fall asleep just like at night time.



You may need to wear special hospital clothes.



We will give you the medicine to make you sleepy to drink or as a squirt up your nose. This does not hurt.



When you are sleepy, we will put a cannula (said: cann-you-la) in your hand. We will give you an injection (said: inn-jeck-shun) through the cannula. This shows up as a different colour on the scan.



Next you will have the scan. This could last about 5 minutes



After the scan, you will start to wake up from the sedation. The nurses will check you regularly to make sure you are getting better.



They will give you something to eat and drink to make sure you are not sick. You can then go home.



After this, you can go home if you are not having any other scans or appointments.