

Videofluoroscopy

Information for
parents and carers



Leeds children's
hospital

caring about children

What is a Videofluoroscopy?

A Videofluoroscopy Swallow Study (VFSS) is used to look at how your child swallows. It is a moving x-ray of the mouth and throat to let us see what happens in detail when your child is eating and drinking.

Why does my child need a Videofluoroscopy?

A Videofluoroscopy is recommended by your child's Speech and Language Therapist (SLT) and Doctor when there is concern about how their swallow is working. It allows us to look closely at the swallowing process, and to see if your child can protect their airway (windpipe) when swallowing, and how well the food or drink moves from the mouth through to the oesophagus (food tube). This special x-ray can help us to identify the problem and guide your child's SLT to make recommendations, which will help to keep your child safe if they do have a swallowing difficulty.

Where will the Videofluoroscopy take place?

The Videofluoroscopy takes place in the children's x-ray department, B floor, Clarendon Wing at the LGI. You and your child will be asked to wait in the waiting room until we are ready to start.



Preparing for the Videofluoroscopy

Will I need to starve my child before the Videofluoroscopy?

We will need your child to eat/drink during the procedure, so ensuring they are hungry/thirsty can be important to the success of the test. However, we do not want children to be so hungry that they are distressed before the test starts. It may be a good idea to discuss timings with your child's SLT to work out what you think will work best.

What do I need to bring?

Your child's SLT will have given us detailed information ahead of your appointment, and will have requested us to look at certain types of food/liquid consistencies so they should have advised you what to bring. As SLTs we all use the 'IDDSI framework' when describing foods, and we will use these in VFSS (e.g. IDDSI Level 2 = mildly thick liquid).

Examples:

Liquids: please bring your child's favourite drink, and any thickening product prescribed. It's a good idea to have a drink pre-thickened to the correct IDDSI level so we can see this and use it as our starting point.

Purees: e.g. a runny fruit puree (IDDSI Level 3) or a thicker puree e.g. a fromage frais (often IDDSI Level 4).

Please check with your SLT before the appointment what foods/drinks to bring.

Sometimes the x-ray room can be a bit daunting so bringing your child's **preferred foods** can help to settle them into eating whilst having their x-rays taken.

Unfortunately we do not have facilities to reheat food and drink.

Please also bring your child's **usual feeding items** e.g. bottles and teats/cups/straws and favourite bowls/plates if they have any.

You may also find it helpful to bring any **favourite toys**, or **comfort objects** to help settle them in to the x-ray environment.

Please let us know in advance of any **allergies** if you have not already told your SLT.

If you are pregnant you will need to stay behind the protective screen in the x-ray room, so it is important that you arrange for someone else who your child is familiar and settled with, to stay with your child during the x-ray. You will still be able to see your child and talk to them through the screen.

What should my child wear?

Your child will stay dressed in their own clothes for the assessment BUT it is important that no poppers or metal fastenings are present in the neck area e.g. bibs/vest tops with poppers on the shoulders. Any earrings should also be removed.

What happens during the VFSS

In the x-ray suite

When we are ready, we will call your child's name and ask you to join us in the x-ray room. A radiographer will check your child's details and we will introduce you and your child to the other adults present in the room. Usually, the following team members will be present:

Specialist Speech and Language Therapists (SLTs): Two SLTs who work in the hospital and specialise in guiding this examination and interpreting the results

Senior Radiographer: Who will help us to position your child, and take the x-rays

Radiographer Assistant: Who will help us to prepare the food/drink your child needs, and also provide some distraction, support and encouragement if needed.

We always invite your child's own SLT to attend virtually via a video link as they know your child better than us and this can be really helpful to guide the examination.

Sometimes, we will also ask the opinion of the Radiologist, a Doctor who specialises in x-rays; this is quite normal and nothing to worry about; sometimes the pictures we get can be more challenging to interpret so another opinion can be helpful.

Getting settled

- You can stay with your child throughout the test (unless you are pregnant - see page 4); you will be asked to wear a lead apron which can feel quite heavy! All the staff that will stay out front with your child will also wear these aprons. Your child will not need to wear a lead apron.
- We will make sure your child is comfortable, in a seat that suits them. This information should have been provided in advance by your child's own SLT; we have a range of seating available. Sometimes your child can stay in their own buggy or specialist wheelchair, depending on the presence of metal around the area we need to screen.
- The seat will be next to the camera, which may move a little during the test to keep capturing the best images.
- You will be asked to sit/stand in front of your child and help them to take the foods/drinks required, encouraging them to stay in a good position.
- Unfortunately your child cannot sit on your knee during this examination as we cannot expose you to x-rays.
- It can be very tricky, but we need your child to keep as still as possible to get the best possible pictures!



Food and drink preparation

- We will ask you to put out all the foods/drinks you have brought onto a table, along with any special utensils that you have brought.
- We then prepare the food and drink by mixing in a small amount of barium; this allows us to see the food and drink clearly on the x-ray pictures. Barium has a mild chalky quality but this is usually masked by the flavour of your child's food/drink. It will change the colour of your child's food to a paler colour.
- We try wherever possible to make the foods/drinks look familiar e.g. mixing a yoghurt and putting it back into the original pot.

The assessment

- We will begin to take pictures when your child is settled. The camera does make a gentle noise as it moves up and down, but it will not touch your child.
- We will talk to you throughout the test, and we will tell you when to offer the food/drink and when to stop. We will change what we offer as we go through the test, often asking your child's own therapist some questions if they have attended virtually.
- We will answer any questions at the end of the test.
- Sometimes we may change the position that your child is in, or change utensils, or consistencies. Sometimes we will ask you to keep feeding your child whilst we screen on and off - this is helpful if there are particular concerns about your child's swallow changing as they tire.

What happens after the test?

- The SLTs and the Radiographer will go behind the screen and review the images that we have taken, whilst you stay with your child and get them ready to leave.
- We always aim to give some feedback to you as soon as we have reviewed the images, although we review the images taken back in our department on a larger screen to complete our assessment; this may sometimes be necessary before we can give feedback to you. In this case we will call you after the clinic.
- A full report is written later that day and given to your child's Doctor, SLT and any other people you feel should see a copy. You will also receive a copy in the post.
- The results will be reviewed by those looking after your child, and they will make recommendations based on our results.
- You may notice later that day or in the days following the test that your child has some white in their stools. This is totally normal, as Barium is not absorbed by the gut.



Frequently Asked Questions

Q: How long will the appointment take?

A: We allocate 30 minutes per child; though please be patient if we run over with the appointment before yours. It's really important we try to get the results we need to help with the management of your child's swallow and sometimes this can take time. We will actually only x-ray for around 5 minutes, and sometimes we do not x-ray for this long.

Q: Will my child need to stay in hospital?

A: No. This test is done as an outpatient; children are very rarely admitted to a ward afterwards

Q: Is the test painful?

A: No. We try and mimic the way your child is fed at home, though it can be a bit daunting eating and drinking in a strange room! We will always try and settle your child with some music, some lights and even their favourite cartoon on an iPad if needed.

Q: What about medication that my child takes?

A: Please administer as normal.

Q: Should I remove my child's naso-gastric tube?

A: If your child is currently fed by naso-gastric tube, please leave this in place.

Q: What about radiation exposure?

A: X-rays are a type of radiation. Everybody is exposed to small amounts of natural background radiation from the soil, food and air we breathe. The Radiologist and Radiographer will make sure the smallest amount of x-rays are used in the examination. The risk from this radiation dose is low, and the benefits of your child having the examination outweigh these risks. If you have any concerns about the radiation risk please speak to the Radiologist before the examination begins. When you support your child during the examination you will be asked to wear a lead apron. You will also receive a small amount of radiation on top of the natural background radiation you receive annually. This risk is negligible and the benefits of you comforting your child outweigh this risk

More information

- We look forward to meeting you and your child at the appointment. Please contact your child's SLT if you have any questions before the appointment. If this is not possible, please feel free to call our team on the number provided on your appointment letter.

You could also visit the following websites to help you prepare for the VFSS.

<https://www.youtube.com/watch?v=IZvVsf2mRZo>

<https://www.youtube.com/watch?v=8T9J4jvxjZs>

https://youtu.be/MHD14dSY_TM?t=294





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© The Leeds Teaching Hospitals NHS Trust • 1st edition Ver 1
Developed by: Louise Bisset, Highly Specialist Speech and Language
Therapist
Produced by: Medical Illustration Services • MID code: 20230703_003/NR

LN005654
Publication date
06/2024
Review date
06/2027