What is nasogastric (NG) tube feeding?

Some babies/children are unable to suck all their feeds or to take enough milk for them to grow adequately. This might be for a number of reasons:

• Born too early for the sucking reflex to be fully developed.
• Be unable to take their required feed volume by breast or bottle as they tire easily.
• Have a medical reason which makes feeding more difficult.

In these situations milk can be given via a NG tube which passes through the baby/child’s nose, down the back of the throat, down the oesophagus (swallowing tube) and directly into their stomach. It is taped to the side of the face near to their nose.

Nasogastric tubes

A nasogastric tube is a thin, soft plastic tube. It is disposable and needs changing normally once a week. If both nostrils are patent (open) when a new tube is passed (put in), use the other nostril to give the previous nostril a rest.
What are the risks of having an NG tube?
When putting the tube down there is a risk of it going into the lungs instead of the stomach. The tube could also move if it is accidently pulled or if there is vomiting, retching or excessive coughing. Should this happen milk could accidently go into the baby/child’s lungs instead of the stomach, where it will cause breathing difficulties and could lead to a life threatening incident. For this reason you must always check the position of the tube after it is passed and before the tube is used to give a feed or medicine.

Skin Care
Protective tape (eg Coloplast or Duoderm) underneath the NG tube protects the skin from the sticky tape (eg Mefix or Tegaderm) which secures the tube in place. It is advisable to replace tapes if they look dirty or if they are peeling off. When the tape has been removed, clean baby/child’s face and dry thoroughly.

General hygiene points
Always wash your hands before giving a feed, medicine or preparing feeds.

Testing the position of the tube
It is essential to ‘test’ the position to make sure it has not slipped out of the stomach after a tube is passed and before feeding or giving medicine (take note of the markings on the tube). A nurse will help you to test the tube in hospital and show you what equipment to use.

Before starting gather all the equipment you will need:
- pH testing strips.
- Correct size syringe/s.
- Nasogastric tube (if required).
- Tape (if tube being re-passed).

The size of syringe you need to test your baby/child’s tube depends upon their age. The following table explains what size syringe to use, and how much air to draw back into the syringe before you start testing. Using air in the syringe before you pull back prevents the tube from collapsing, which would stop any milk being drawn into the syringe.
Before attaching the syringe to the NG tube, pull the plunger on the correct sized empty syringe to the marking indicated in the table above (this ensures you have the correct amount of air in the syringe).

Attach the syringe, with the air in, to the NG tube and gently pull back on the plunger to obtain 0.2 – 1ml of milk from the stomach and then drop this onto a pH testing strip.

In order to be sure it is safe to feed/give medication the pH reading or result **must** be between pH 1 and pH 5.5. If the pH is above 5.5 contact the appropriate clinical area.

If no milk is aspirated into the syringe to test **do not** proceed or put anything down the NG tube.

### Follow these steps:

1. Undertake the techniques you were shown in hospital on how to change baby/child’s position.
2. Try putting the NG tube in another centimetre or pulling the tube back slightly.
3. After trying 1 & 2 above repeat procedure to try and obtain some milk from the stomach.

If no milk obtained contact the appropriate ward (see phone numbers on page 11). You may be required to attend the hospital for the NG tube to be checked.
Giving a feed

- Wash your hands and warm the feed as necessary. Where possible, your baby/child should be positioned with their head above the level of their stomach.

- **Always** check the NG tube position before giving a feed (while you are still learning a Registered Nurse will check the position of nasogastric tube with you prior to giving a feed). As well as checking the PH it will be useful for you to record where the tube is sitting at your child’s nose (the centimetre marking) so you will know if it has moved since the last feed.

- Connect the feeding syringe without the plunger to the NG tube and pour the feed into the syringe.

- Push gently with the syringe plunger to start the feed and then remove it and let the feed run in by gravity. If the feed is running too quickly or too slowly alter the height of the syringe – lower it to slow the feed down or raise it to speed the feed up.

- The feed should take approximately 15-20 minutes (similar to a breast or bottle feed), if the feed is given too quickly it will cause your baby/child discomfort and increase the risk of vomiting. If thickening agents are added to feeds the feed may take longer to give or require a different technique to give the feed (training given).

- Place plunger back onto syringe before disconnecting the syringe (to make sure feed/medication has gone out of the tube and prevent excess air in the stomach causing discomfort) and make sure the cap is screwed back onto the end of the NG tube.
During a feed
• Watch your baby/child during the feed in case he/she attempts to pull the NG tube out.
• If the NG tube slips out or is pulled by the baby/child during a feed it is important to stop the flow of milk down the NG tube. To stop the milk flow you can pinch the NG tube by bending the tube with your finger, milk can then be poured out of the syringe into an appropriate container.

Stop feeding also if you observe:
• Vomiting.
• Coughing.
• Choking.
• Changes in colour – pale or blue.
Sometimes if a baby/child has a large vomit/cough, the NG tube can come out of his/her mouth. If this happens remove the NG tube gently from the nose and give him/her a cuddle.

Supervised practice for carers feeding by nasogastric tube
There is no ‘set’ amount of time that you should be supervised giving nasogastric tube feeds, it is a matter of agreement between you and the nurse assigned to give you training, supervision and support. Until you feel confident and safe, tube feeding your baby/child and are signed off as competent do not feed your child without a nurse supervising you. Please discuss any problems or concerns you may have with NG tube feeding with the nursing team. Common concerns experienced relate to feed thickeners, vomiting, and dislodged tubes. The nursing team will be able to give you advice on ways to overcome these.

Getting ready for home
If your baby/child is going home on tube feeds you will need supplies: tubes (if passing tubes at home), tape, syringes, pH testing paper, milk and any other supplements prescribed by the doctor or the dietician. Community staff will continue to supply you with these when you are home.
How do I pass the NG tube?
Passing a NG tube is a quick procedure and the nursing staff will demonstrate and support you through the various steps of training until you feel confident. It is important that you take it at your own pace and don’t feel rushed to complete this.

- You may find it useful to swaddle your baby/child securely whilst you pass the tube.
- You will be taught how to measure the tube from the tip of the baby/child’s nose to the lobe of the ear then to the area of the stomach (just below the rib cage).
- You will be shown how to pass a tube to the pre-measured mark on the tube.
- Position the tube onto a piece of Coloplast or Duoderm placed on the cheek next to the nostril used. Secure the tube to the Coloplast or Duoderm with a small piece of Mefix or Tegaderm dressing. The Registered Nurse will help you to decide which will be the best method of securing the tube for your baby/child.
- The centimetre marking on the tube needs to be visible once secured.

If you have already given part of a feed and the tube needs to be removed/pulled out do not attempt to pass another tube for at least another hour, because this will make your baby/child vomit. Staff will advise you on how often your baby/child’s tube will need changing.
**Training and assessment record**
The following training and assessment check list will be completed by staff undertaking the training and assessment.

**Record of competency to pass NG tube/give NG tube feeds in preparation discharge of:** Child’s name: .........................................................
D number: ........................................................................ 
(*delete as appropriate)

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Name: ........................................................................ 
Nurse signature: ......................................................... Date: .................

**Declaration by Parent/carer:**
I have been given full instruction in NG tube feeding by staff in which the following areas have been covered:

- Passing a NG tube (delete if not applicable).
- Securing a NG tube.
- Testing the NG tube using pH testing strip method.

I feel that I am competent enough in this area to carry out nasogastric tube feeds on my baby/child when he/she is discharged home and I am responsible for my own actions.

Carers Signature: ......................................................... Date: .................

On completion a photocopy of training and assessment record to be retained in clinical records and documentation in IPOC completed. Provide a full copy to the individual assessed.
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Contact telephone numbers

For emergencies:
999

**Doncaster Children’s Observation Unit:**
01302 553102

**Doncaster Children’s Ward:**
01302 553103

**Doncaster Neonatal Unit:**
01302 553166

**Bassetlaw Children’s Ward A3:**
01909 502284/502280

**Bassetlaw SCBU:**
01909 502228
Patient Advice & Liaison Service (PALS)
PALS staff are available to offer advice or information on healthcare matters. The office is in the Main Foyer (Gate 4) of Doncaster Royal Infirmary. Contact can be made either in person, by telephone or email. PALS staff can also visit inpatients on all Trust sites.

The contact details are:
Telephone: 01302 553140 or 0800 028 8059
Email: pals.dbh@dbh.nhs.uk