

Tricky Topics in Nursing
Nasogastric Tube Insertion

Narrator:

In this video, we will discuss the safe insertion of a fine-bore nasogastric tube for feeding purposes in an adult. Before starting the procedure, we should consider some contraindications and risks.

Contraindications to this procedure include:

- Basilar skull fractures.
- Facial injuries.
- Obstructed oesophagus.

Safety risks include:

- Accidentally placing the tube in the oesophagus or the lungs.
- Causing a pneumothorax.
- Causing a perforation of the oesophagus or pharynx.
- These safety concerns are rare but can't be fatal.

Before starting the procedure, you must gather all equipment. Check local policies and procedures for the brands used in your practice area. Assess the needs of the person and identify any contraindications to the procedure.

You must explain the procedure to the person in clear accessible language and obtain their informed consent. Document this process. Agree on a sign to enable the person to stop the procedure if needed.

The person should be seated semi-upright, in a bed or chair. Their head should be supported with pillows. The emesis bowl and tissues should be in reach.

Perform hand hygiene and don relevant PPE.

Measure the distance from the nostril to the ear lobe

Measure from the ear lobe to the bottom of the xiphisternum (NEX measurement).

Mark the area with a marker/pen or piece of tape.

Lubricate the tube with water-based lubricant following advice from manufacturer's guidelines and local policy.

Check the nostrils are patent by asking the person to sniff with one nostril closed and repeat with other nostril.

Introduce the tube into the person's preferred nostril sliding backwards and inwards along the floor of the nose to the nasopharynx.

At the nasopharynx (approximately 8cm), encourage the person to swallow sips of water through the straw. If they cannot swallow fluids, encourage them to mimic a swallowing motion.

As they swallow, advance the tube until you reach the marked area.

Leave the guidewire in until you have checked the position of the tube.

Ask the person to hold the tube by their nostril.

If they are unable, secure the tube temporarily with tape to prevent accidental dislodgement.

Attach the syringe to the port and aspirate 1 ml fluid.

Drop the aspirate onto the pH strip as per your local policy.

A pH between 1 – 5.5 indicates the presence of acidic fluid and is accepted in some trusts as indicative of successful placement of the tube into the stomach. If there is any doubt about the result, feeding must not commence until a second competent person has checked the reading or retested the aspirate.

Some trusts will have specific guidance on pH limits. Others will require a chest x-ray. X-rays must only be interpreted, and the position confirmed by someone assessed as competent to do so. The person interpreting the x-ray must document the tip position in the patient's notes. Adhere to your own trust guidance.

Remove guidewire and close port.

Secure the tube to the person's face with tape as per local policy. If possible, loop the tube over the ear to distribute the weight away from the tape.

Flush the tube with 30 mL water.

Dispose of equipment and PPE appropriately and perform hand hygiene. Document the type and size of the tube, the length marked at the nostril, how the position was checked, and the pH obtained.

Each student nurse using this resource should discuss opportunities for undertaking this skill supervised in practice with their practice supervisor.

If the person becomes cyanosed or has trouble breathing during the procedure, remove the tube at once.

In this video, we discussed the safe insertion of a fine-bore nasogastric tube for feeding purposes in an adult. We referred to evidence emphasising the risks associated with the procedure and how to mitigate those risks.

You must assess and obtain consent.

You must measure the tube from nostril to ear lobe and from ear lobe to bottom of xiphisternum (NEX).

Advance the tube gently and encourage swallowing when in the nasopharynx.

The tube must be checked by measuring the pH of the aspirate. The pH should be between 1 – 5.5.

A chest x-ray might be needed.