

Nasogastric Tube Insertion

A nasogastric tube (NGT) passes through the nose, past the nasopharynx and oesophagus into the stomach. They are used to deliver enteral nutrition, medications or provide gastric decompression. Ensure the procedure is explained to the caregiver and ensure they have provided verbal informed consent. The caregiver may choose to leave the room during the procedure.

1 GATHER EQUIPMENT



correct size NGT



lubricant



skin preparation wipe



pH strips



hydrocolloid dressing cut to size (primary dressing)



hypafix cut to size (secondary dressing)



20mL syringe

*ensure you don the appropriate PPE prior to undertaking the procedure

Paediatric NGT sizing guide

The size, type and length of NGT will be dependent on the age or size of the child, as well as the intended use. Also consider the viscosity of fluid to be administered if the NGT is to be used for medication administration.






Age	 < 4 months	 4 months to 2 years	 2-4 years	 4-8 years	 > 8 years
NGT size for medication & feeding	5-6Fr	6-8Fr	8Fr	8-10Fr	10-12Fr
NGT size for decompression	6-8Fr	8-10Fr	10Fr	10-12Fr	10-14Fr

Table 1. NGT size guide based on age

Paediatric Positioning & Clinical Holding for a NGT

- Small children will need to lie supine or have the bed head elevated to 30-40°.
- Older children may feel more comfortable sitting upright.
- Infants and younger children will need holding with parental consent. Please review your local paediatric clinical holding procedure or the CHQ procedure [Procedural Pain - Non-pharmacological Management](#).
- Lying supine on parent's lap is an ideal position if parents are willing to be present for the procedure.





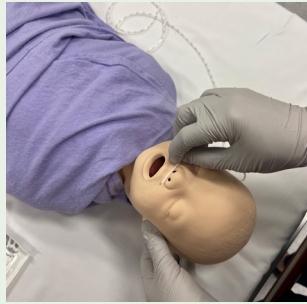

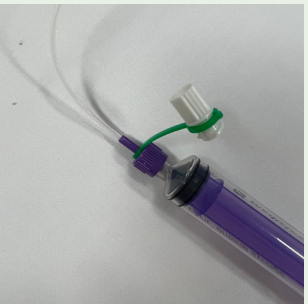
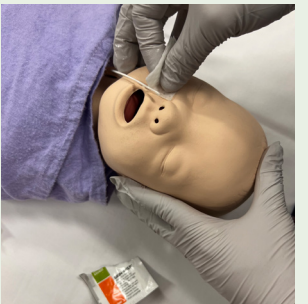
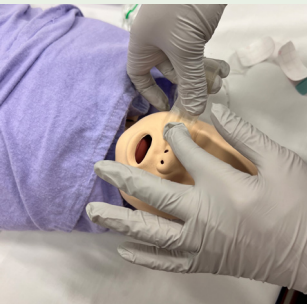



ALERT

Insertion of gastric tubes should **NEVER** be attempted in children with known oesophageal varices, oesophageal abnormalities such as atresia or trauma, or children with a suspected base of skull fracture without senior medical consultation and supervision.

Clinical signs such as coughing, choking, cyanosis may indicate incorrect tube placement

Seek prompt advice from a senior clinician for any child suffering any adverse effects of nasogastric insertion such as respiratory distress or excessive vomiting.

<p>2 PROCEDURE</p> <p>Position the patient to facilitate insertion and comfort. Assess the need for clinical holding.</p> 	<p>3</p> <p>Determine the length to which the NGT will be inserted.</p> <p>Step 1: Find the NGT exit port (where fluid leaves the tube into the stomach).</p> 	<p>4</p> <p>Step 2: Place the exit port at the nare and measure from the tip of the nose to the corner of the ear lobe.</p> 	<p>5</p> <p>Step 3: Measure from ear lobe to the xiphoid process.</p> <p>Step 4: Then measure from the xiphoid process, halfway to the umbilicus.</p> 
<p>6</p> <p>Attach a 20mL syringe to the end of NGT.</p> 	<p>7</p> <p>Use skin preparation wipe if there are concerns about adhesion of protective hydrocolloid dressing to skin. Allow to dry.</p> 	<p>8</p> <p>Apply hydrocolloid protective dressing to the same side of face that NGT is to be inserted.</p> 	<p>9</p> <p>Lubricate the tip of the tube for nasal insertion.</p> 



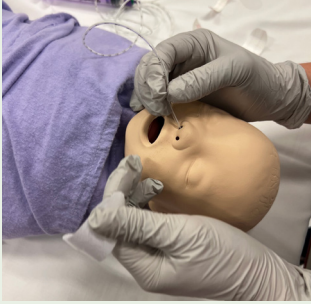
ALERT

Do not force the tube, pause if the child starts to cry. Continue insertion as they swallow.



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Insert the tube into the nostril, gently guiding towards the back of the nasopharynx and down the back of the oropharynx into the oesophagus. Continue insertion up to the measured length.



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Once inserted to pre-determined length, Secure the tube, using a primary dressing to protect the skin followed by a secondary dressing to secure the tube



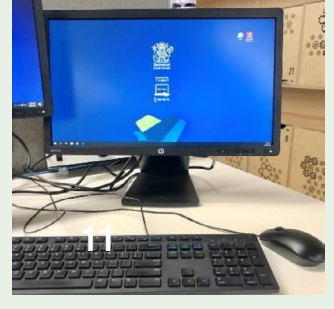
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Using the syringe aspirate enough gastric contents (1mL) to perform a pH test to confirm placement.



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Document the tube size, tube length and pH, in the patient's clinical record.



Helpful Hints

- The use of Sucrose 24% may be considered in infants. See the [Sucrose 24% Skill Sheet](#). A medical order is required, and parental consent is required prior to use. In some health services, Sucrose 24% may be authorised nurse initiated medication. Check your local policy or procedure for more information.
- If you are unable to pass the tube down one nostril, try the alternate nostril. Advise treating team of obstruction.
- Long term Corflo Enteral Feeding Tube should be primed with sterile water, allowing the guide wire to be easily removed once inserted. Prior to use refer to your local policy/procedure or the product manual for more information.
- Explain the procedure to the child as age appropriate.

For further information:

[CHQ Procedure: Enteral Feeding Tubes: Insertion, care and management \(QH only\)](#)

[CHQ Procedure: Procedural Pain - Non-Pharmacological Management \(QH Only\)](#)

Video:

[Video: Core Nasogastric Tube Insertion](#)

References:

Children's Health Queensland Hospital and Health Service. (2020, January 13). Enteral Feeding Tubes: Insertion, care and management. https://qheps.health.qld.gov.au/_data/assets/pdf_file/0041/697487/ns-04800.pdf

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Cairns and Hinterland Hospital and Health Service. (2020, February 25). Supporting Children during Basic Clinical Procedures (Including pre-procedural preparation and clinical holding).

Queensland Health State wide ED Nurse Educator Committee, Pearson, N., Cole, T., & Carney, S. (Eds.). (2016). Unit 9 Gastrointestinal and Endocrine. In Queensland Health: Transition Support Program - Emergency. Module 3 - Paediatric Care in the Emergency Department (4th ed., pp. 167–170). State of Queensland (Queensland Health).

This Queensland Paediatric Emergency Skill Sheet was developed and revised by the Emergency Care of Children working group. Initial work was funded by the Queensland Emergency Department Strategic Advisory Panel.



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- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary.
- Ensuring informed consent is obtained prior to delivering care.
- Meeting all legislative requirements and professional standards.
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