

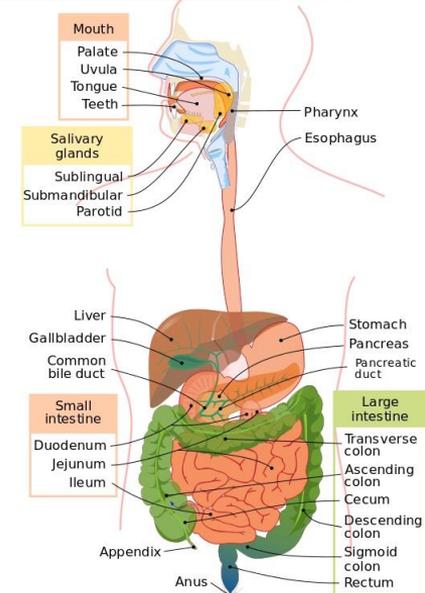
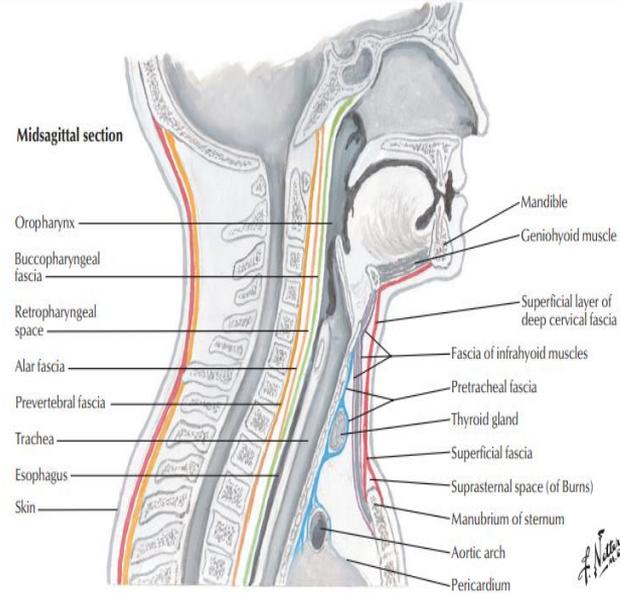
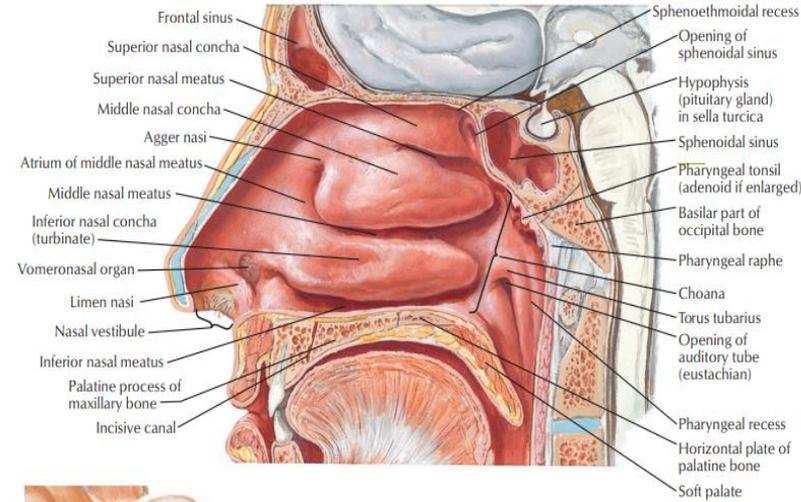
Gastrointestinal Intubation

-Nasogastric Tube-

-Presented by:

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Anatomy



Nasogastric tube:

A tube that is passed through the nose and down through the nasopharynx and the esophagus into the stomach .



NG tube is commonly used for patients who:

- Need a mechanical ventilator to breath.
- Have an intestinal obstruction.

Indications for GI intubation:

Diagnostic indications for NG intubation include the following:

- Evaluation of upper gastrointestinal (GI) bleeding (ie, presence, volume)
- Aspiration of gastric fluid content
- Identification of the esophagus and stomach on a chest radiograph
- In babies coughing, choking or a baby turning blue when trying to feed
- Administration of radiographic contrast to the GI tract
- Identification of cancer cells

Therapeutic indications for NG intubation include the following:

- *Relief of symptoms and bowel rest in the setting of small-bowel obstruction
- Gastric decompression, including maintenance of a decompressed state after endotracheal intubation, often via the oropharynx.
- Aspiration of gastric content from recent ingestion of toxic material
- Administration of medication
- Feeding
- Bowel irrigation
- NG tube can be kept following corrosive ingestion for the development of a tract in the esophagus that subsequently can be used for balloon dilatation

Contraindications for GI intubation:

Absolute contraindications for NG intubation include the following:

- Severe maxillofacial trauma
- Recent nasal surgery
- Nasopharyngeal or esophageal obstruction
- Esophageal abnormalities such as diverticulum

Relative contraindications for NG intubation include the following:

- Coagulation abnormality
- Esophageal varices or stricture
- Recent banding of esophageal varices
- Anastomosis in the esophagus and the stomach - Blind NG tube insertion has traditionally been contraindicated in certain procedures involving these anastomoses because of the fear of damage to the staple line; however, in an animal study of blind NGT advancement after sleeve gastrectomy performed via a flexible gastroscope, Fabian et al observed no sign of trauma to the staple line and no significant mucosal injury (there were several small petechiae of the gastric mucosa, none of which were of full thickness or penetrated the mucosa) [6]
- Alkaline ingestion

Insertion of an NG tube :

Assessment :

-Who needs nasogastric intubation

**Neuromuscular
impairment**



Ventilated patients

Surgery patients



**Patients who are unable
to maintain adequate
oral intake**

Patient Medical History (patency of nares)

Ask about history of:

Nosebleeds
Nasal surgeries

Deviated septum
Anticoagulation Tx.

Don't forget to also assess

**Patient's
mental status**

**Patient's gag
reflex**

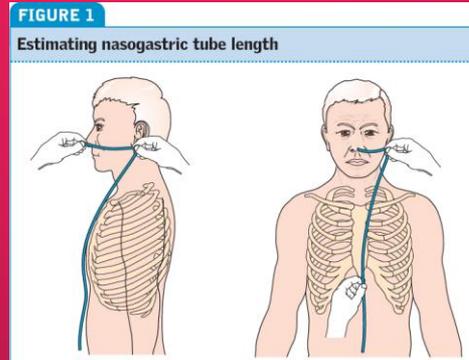
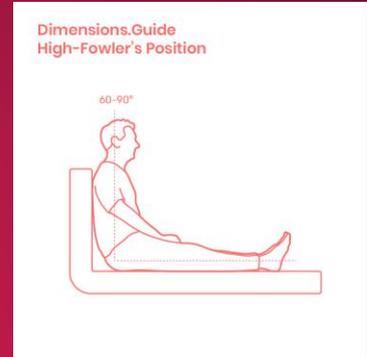
Bowel sounds
(consider a thorough
physical
examination)

Preparations:

- NG tube (Adults size: 16-18Fr) (Pediatrics : $[\text{age}+16]/2$) , keep in mind that the size differs depending on the type and usage of the tube.
- Lubricant and topical anesthetic (Benzocaine, Lidocaine).
- Flashlight.
- Emesis basin.
- 60 ML Catheter tipped syringe.
- Towel or Blue pad.
- Cup of water and straw.
- Stethoscope.

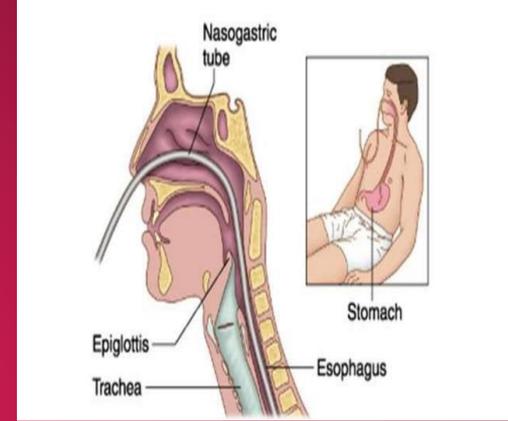
Cont...

- ❑ Explain the procedure to the patient.
- ❑ Position the patient in a sitting or High-Fowler's position
- ❑ Check the tube for any flaws.
- ❑ Determine the length of the tube to be inserted (Measure the distance from the tip of the nose to the earlobe and to the xiphoid process of the sternum)
- ❑ Prepare the NG tube for insertion.



Implementation:

- ❑ Wash hands and put on sterile gloves
- ❑ Lubricate the tube
- ❑ Hand the patient a glass of water
- ❑ Gently insert the tube through the nostrils to the back of throat (posterior nasopharynx) . Aim back and down toward the ear.
- ❑ Ask the patient to flex their head toward the chest after the tube has passed through the nasopharynx.
- ❑ Emphasize the need to breathe from the mouth and swallowing during the procedure (swallowing makes it easier to pass the tube through the oropharynx)
- ❑ Advance the tube each time the patient swallows until the desired length has been reached (don't force the tube in) , then check for the placement by either X-ray or aspiration (test for pH if < 4 then correct gastric placement).



✘ **Complications of nasogastric intubation:**

- **Abdominal cramping.**
- **Increase in abdominal girth (swelling).**
- **Diarrhea.**
- **Nausea & Vomiting.**
- **Nasopharyngeal trauma with or without hemorrhage**
- **Sinusitis and sore throat**
- **Pulmonary aspiration (If the tube lumen got blocked)**
- **Traumatic esophageal or gastric hemorrhage or perforation**
- **Intracranial or mediastinal penetration (very rare)**



✓ Evaluation:



Observe the patient to determine the response to the procedure.



Persistent gagging or coughing is alarming:

-Prolonged intubation and stimulation of the gag reflex can result in vomiting and aspiration

-Coughing may indicate presence of tube in the airway



Documentation:

-Size of tube , which nostril and patient response.

-Record length of tube from the nostril to the end of the tube.

Responsibilities



Identify the signs and symptoms of inadvertent respiratory migration

Identify conditions that increase the risk for spontaneous tube dislocation from the intended position (retching, vomiting, coughing)



Thank u