

# Dysphagia in Myositis

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# Types of Myositis

- Dermatomyositis
- Polymyositis
- Necrotizing autoimmune myositis and
- Inclusion-body myositis

In all disease subtypes, pharyngeal ( Throat) muscles can be involved, which results in dysphagia

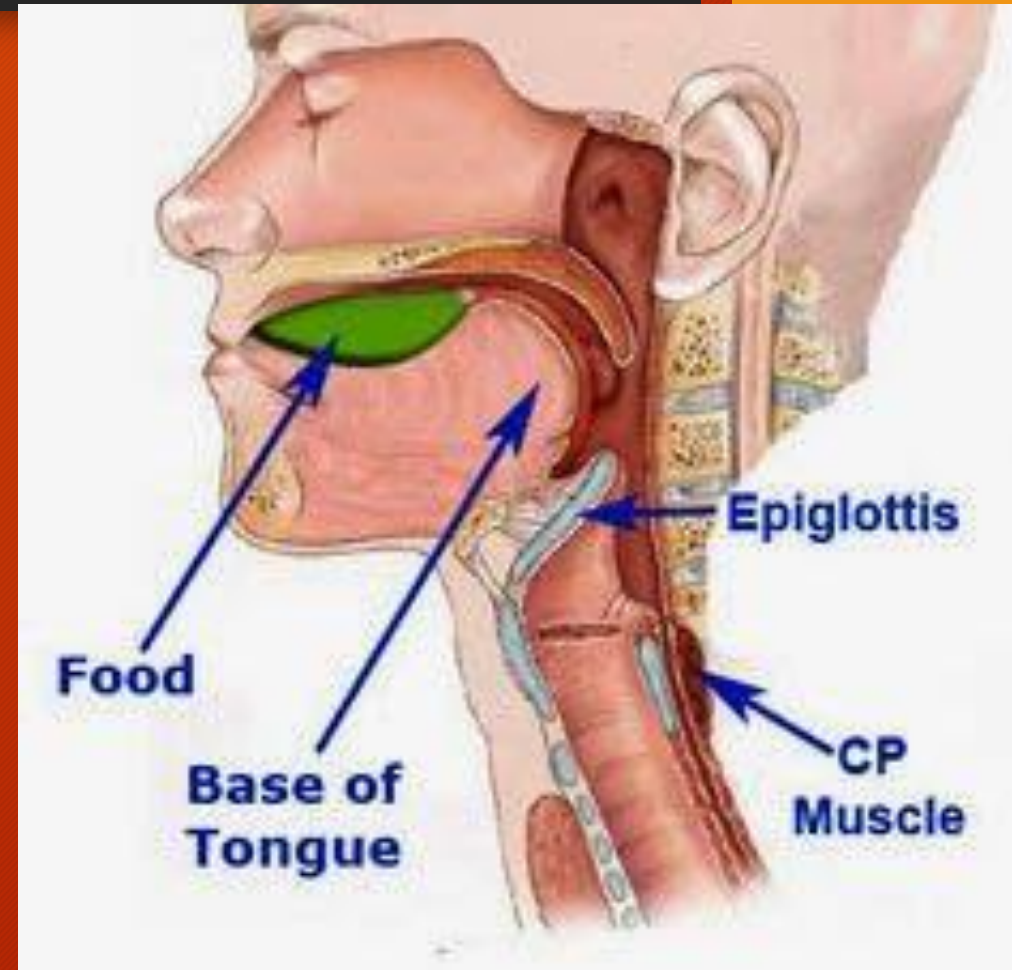
# Normal swallowing

Swallowing is a complex process. Some 50 pairs of muscles and many nerves work to move food from the mouth to the stomach



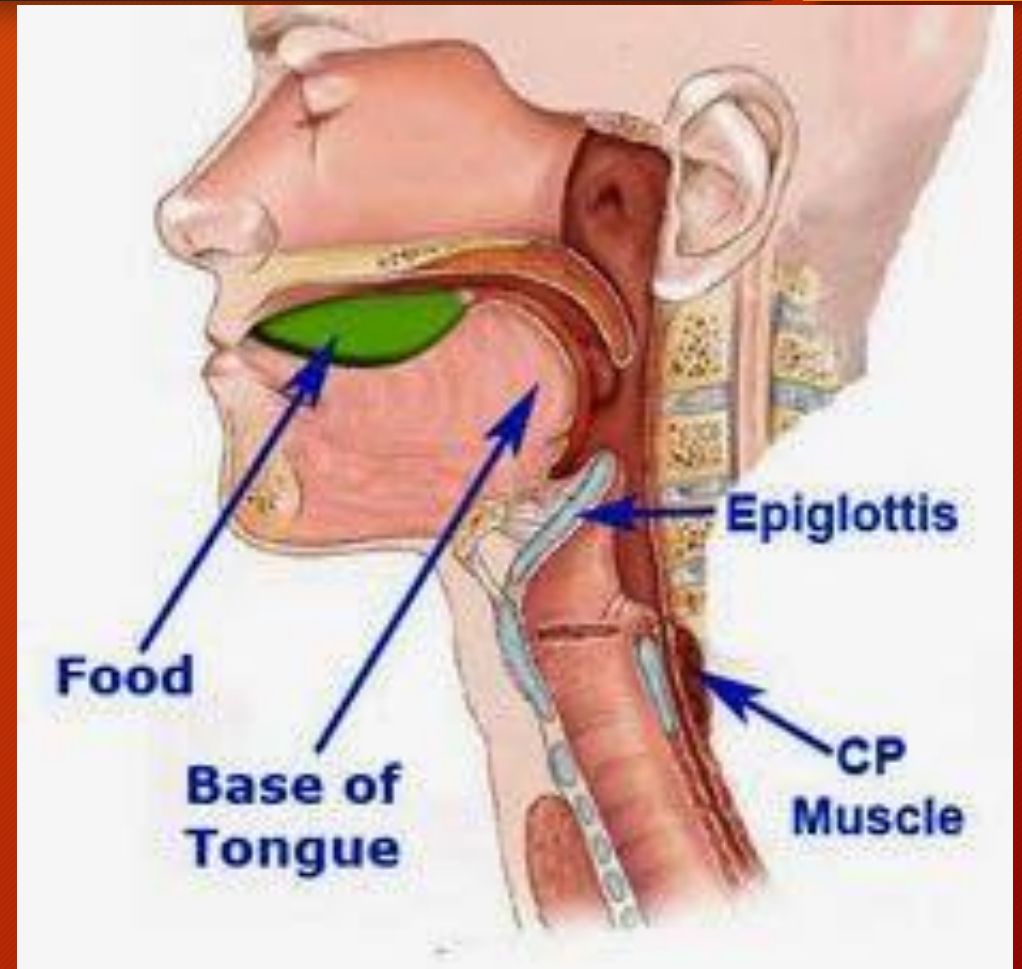
# Oral Phase/Voluntary

- The tongue moves the food around in the mouth for chewing. Chewing makes the food the right size to swallow and helps mix the food with saliva. Saliva softens and moistens the food to make swallowing easier. The tongue collects the prepared food or liquid, making it ready for swallowing.



# Pharyngeal Phase / Involuntary

- This stage begins when the tongue pushes the food or liquid to the back of the mouth, which triggers a swallowing reflex that passes the food through the pharynx (the canal that connects the mouth with the esophagus).
- During this stage, the larynx (voice box) closes tightly and breathing stops to prevent food or liquid from entering the lungs.
  - Aspiration is most likely to occur during this phase.



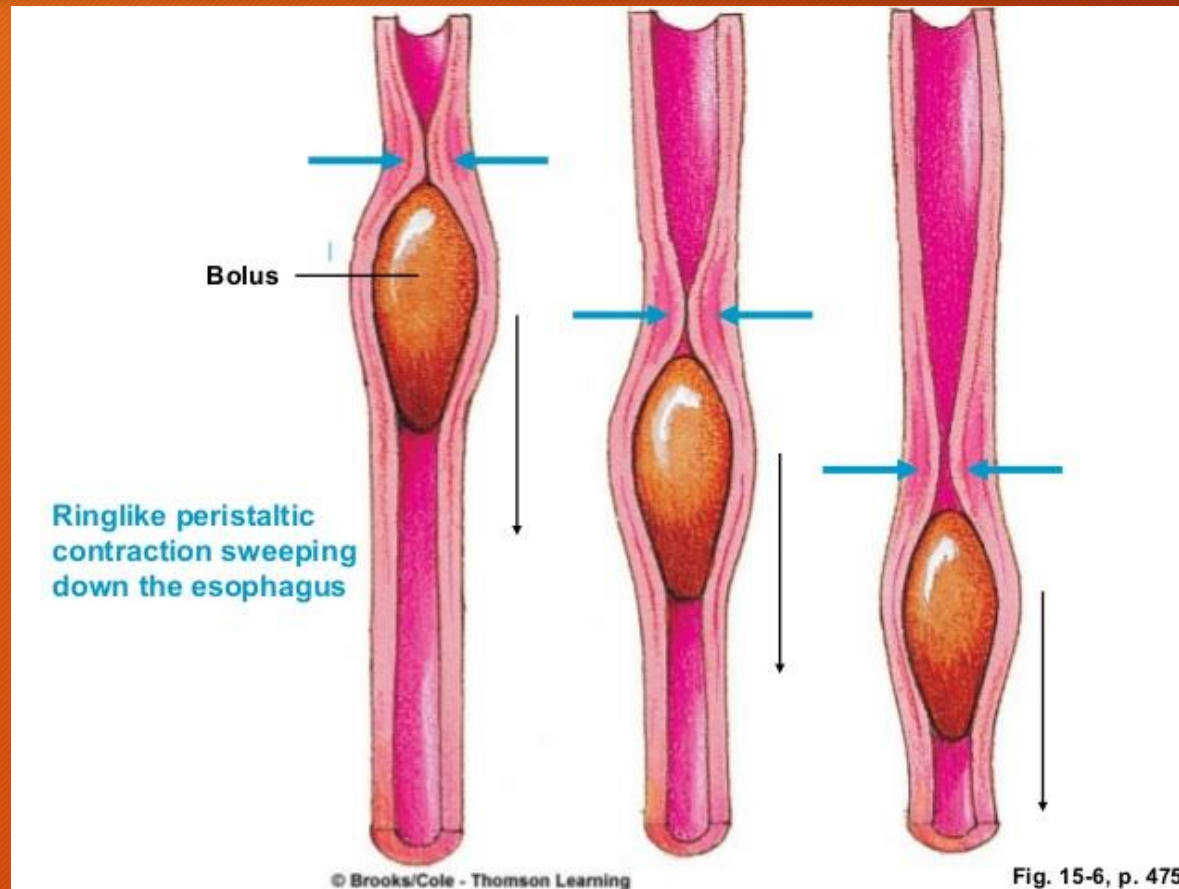


- <https://youtu.be/adJHdrQ4CRM>

# Esophageal Phase / Involuntary

- The food is propelled downward from the upper esophagus to the stomach by a peristaltic movement.
- Impaired esophageal functioning can result in retention of food & liquid in esophagus after swallowing
- An interval of 8-20 seconds may be required to drive food into the stomach.

# Esophageal peristalsis





# Dysphagia: Difficulty Swallowing

- It occurs in one third of patients with myositis. It can affect as high as 65 % patients with Inclusion Body Myositis
- Dysphagia is disabling and potentially life-threatening.
- Dysphagia can lead to aspiration pneumonia – food, liquid going into the airway
- It can also lead to inadequate nutrition and dehydration as eating and drinking becomes progressively difficult

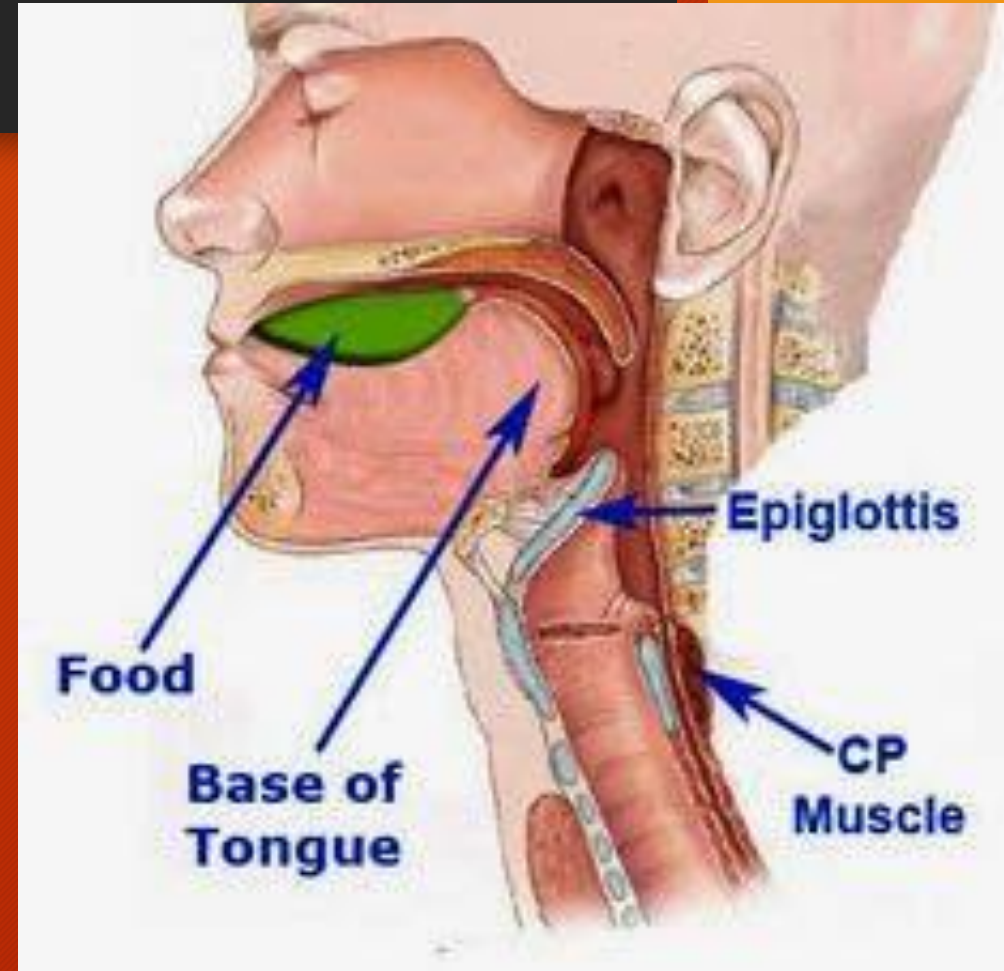
# Two Broad Types of Swallowing Difficulties

## -Oropharyngeal Dysphagia

*Affects the mouth & upper throat*

## -Esophageal Dysphagia

*Affects the esophagus*





# Oropharyngeal Dysphagia

- Characterized by difficulty moving food or liquid to the back of the throat, and initiating a swallow.
- Food accumulates in the mouth - spills out the corners or from the back of the mouth into the nasal passages
- Will actually pass the vocal cords and enter the trachea causing respiratory distress.

# Esophageal Dysphagia

- Characterized by a sensation that swallowed food or liquid is sticking in the esophagus somewhere near the neck or chest.



# Causes of Oropharyngeal Dysphagia

- Stroke
- Parkinson's Disease
- Muscular dystrophy
- Myositis
- Tumors of the mouth
- Radiation-induced dry mouth
- Drug-induced dry mouth
- Chemotherapy-induced inflammation of the mouth

# Symptoms of Dysphagia

- Difficulty chewing
- Difficulty initiating swallowing
- Persistent sensation of a "lump" in the throat
- Frequent need to clear throat
- Drooling
- Pain during swallow
- Bad breath
- Change in voice (Nasal voice or hoarseness)
- Hiccups
- Weight Loss
- Heartburn
- Chest Pain



# Warning Signs of Swallowing Difficulty

- Taking a long time to begin a swallow
- Needing to swallow 3-4 times for each bite
- Coughing
- Frequent throat clearing
- Difficulty swallowing liquids in mouth
- Wet / gurgly voice
- Extremely slow eater - > 45 minutes
- Rocking tongue back & forth
- Spitting food out

# Swallowing Difficulty Complications

- Malnutrition
- Weight Loss
- Dehydration
- Choking
- Aspiration
- Pneumonia
- Depression



# Diagnosis

## Swallowing assessment

Patient is asked to drink a few ounces of water – delayed swallowing initiation, coughing, a wet or hoarse voice quality may indicate a problem. After the swallow, patient should be observed for 1 minute or more to see if delayed cough response is present.

# Diagnosis

## Diagnostic Test

- **Modified barium swallow or video fluoroscopy** : requires patients drink a contrast solution containing barium while a form of real-time x-ray called fluoroscopy is used. The barium, which shows up on x-rays, outlines the inside of the esophagus and allows a doctor or speech pathologist to see the entire swallowing process and find where the problem occurs.
- Endoscopy



# Modified Barium Swallow Study

- <https://youtu.be/X4ryV6wGK1Y>

# Treatment

- For oropharyngeal dysphagia, your doctor may refer you to a speech or swallowing therapist, and therapy may include:
- **Learning exercises.** Certain exercises may help coordinate your swallowing muscles or restimulate the nerves that trigger the swallowing reflex.
- **Learning swallowing techniques.** You may also learn ways to place food in your mouth or to position your body and head to help you swallow. You may be taught exercises and new swallowing techniques to help compensate for dysphagia caused by muscle weakness



# Reducing Swallowing Problems

## Solutions/Interventions/Techniques

- Tilt the head down slightly
- Place food in the back of the mouth
- If weakness more on one side, place food on strong side of mouth
- For tongue thrusting – try placing food on the back of the tongue
- Small sips or bites
- Keep upright for 30 minutes after eating to prevent risk of aspiration

# Meal Time Interventions

- Remove distractions
- Use special swallowing maneuvers recommended by SLP
- Eat more slowly
- Smaller mouthfuls of food
- Special utensils & prosthetics
- Adjust temperature, taste & texture of food



# Solutions/Interventions/Techniques

- Avoid dry foods – moisten with gravy, sauce or broth
- Wait to swallow prior to placing any more food in mouth
- Check mouth very carefully after meals
- Clear all food from back of mouth, between cheek & gums & under dentures
- NEVER RUSH
- BE VERY ATTENTIVE

# Making Swallowing Easier

- Soft, chopped, ground or pureed foods
- Thickened liquids
- Cohesive foods
- Serve food cold or hot, (not warm).
- Cold, sour foods or liquids can improve the oral stage of the swallow by the triggering of a swallow.



# What if Choking Occurs?

- Stop feeding immediately
- Call for assistance
- Utilize Heimlich maneuver if needed
- Sit forward (If unable to sit, turn head to side)
- Do not drink water or fluids until symptoms subside
- Trained personnel may need to use suctioning techniques

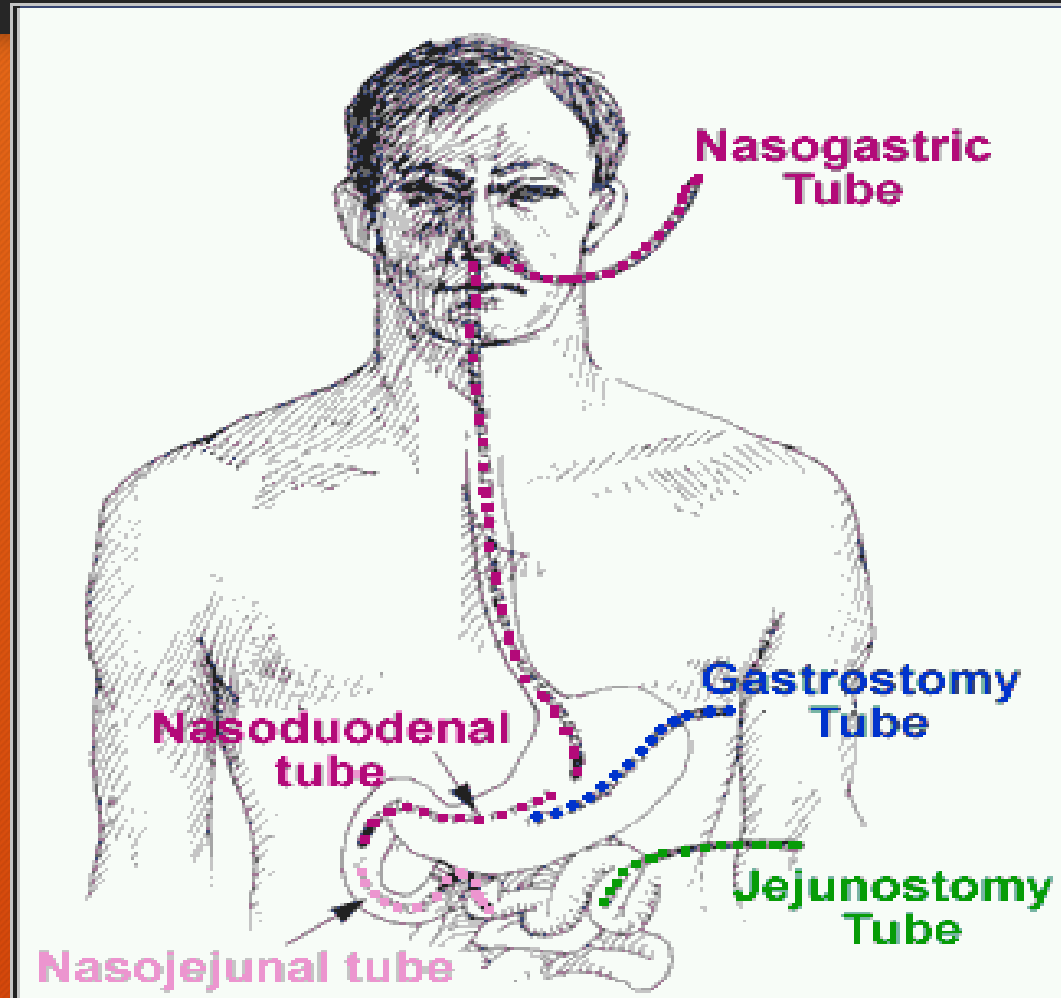
Always follow the recommendations of the Speech Language Pathologist (SLP).



# Enteral Access ( Feeding tubes)

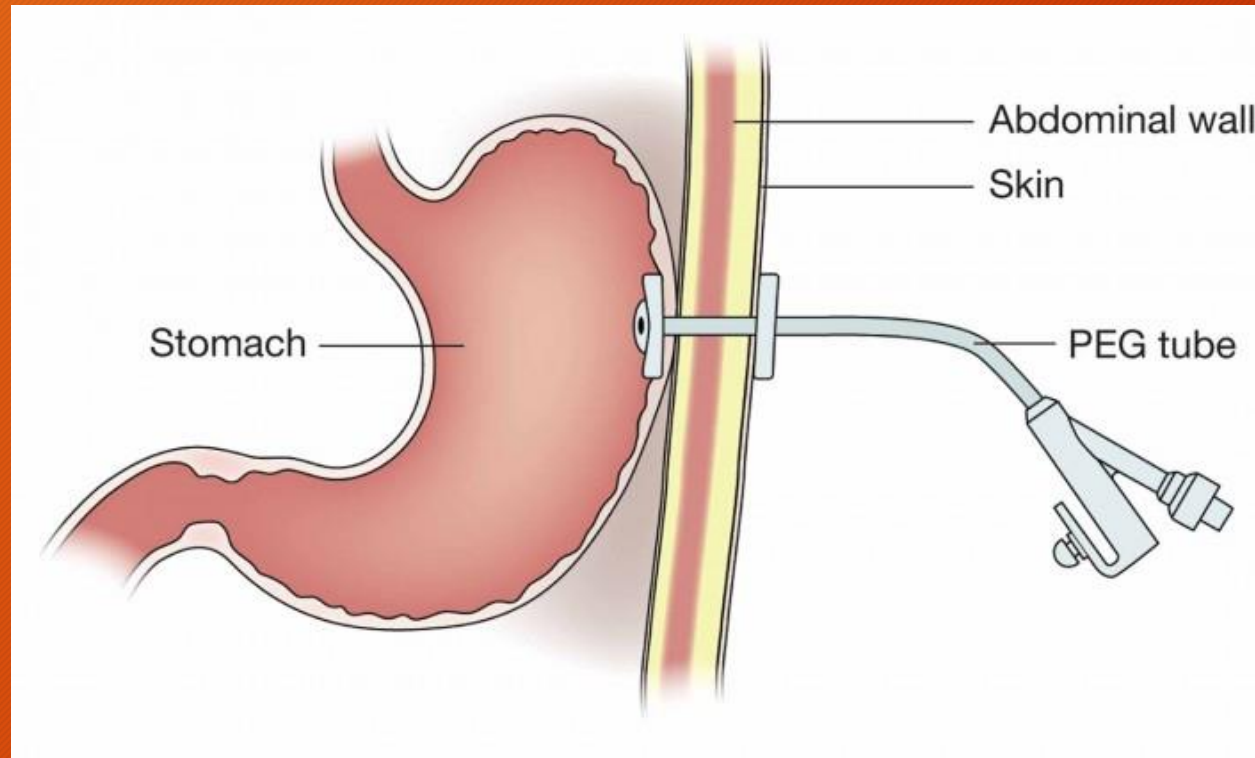
- If the above interventions ( Efforts) fail, placing a feeding tube should be considered to meet nutritional requirements and prevent aspiration

# Enteral Access ( Feeding tubes)





# Gastrostomy or PEG ( Percutaneous Endoscopic Gastrostomy) tube

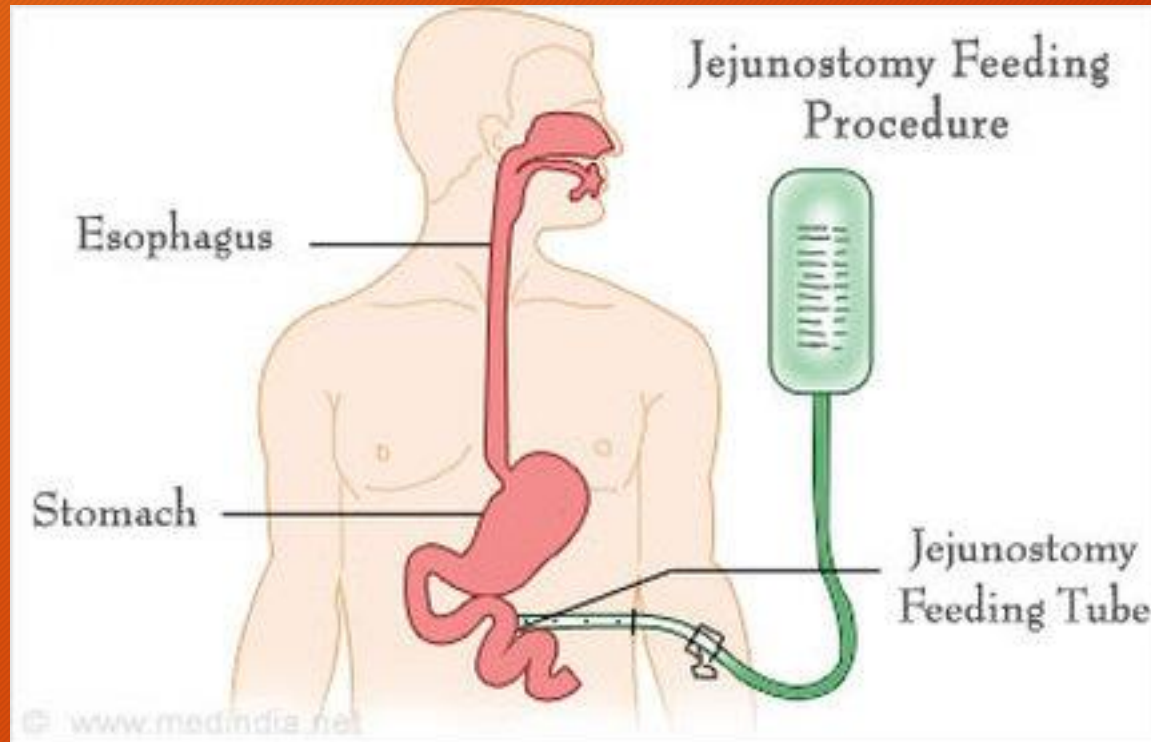


# Feeding tube





# Jejunostomy tube



# Button/low-profile PEG

- These are usually placed once the PEG tract has formed but can also be inserted in a single step endoscopically.
- Button PEG-tubes are low profile devices and are less socially stigmatizing.
- They are usually used in young persons who find normal PEG-tube protrusion socially unacceptable. However, button PEG-tubes need replaced every 6 mo and are also more expensive.



# Button/low-profile PEG





- Thank you