

# Sengstaken Blakemore Tube

10 min Procedure

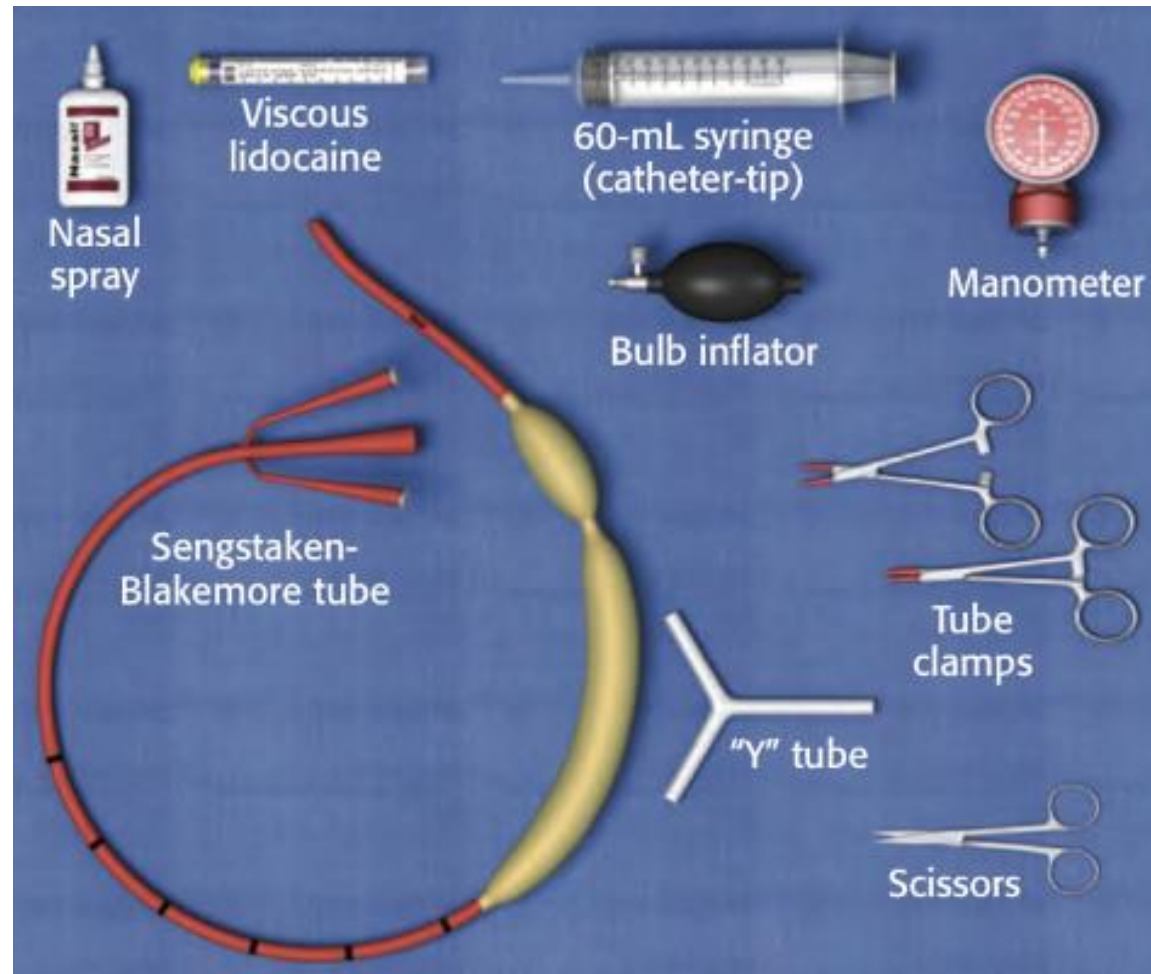
Papitchaya Pichedboonkiat , R3

# Indications

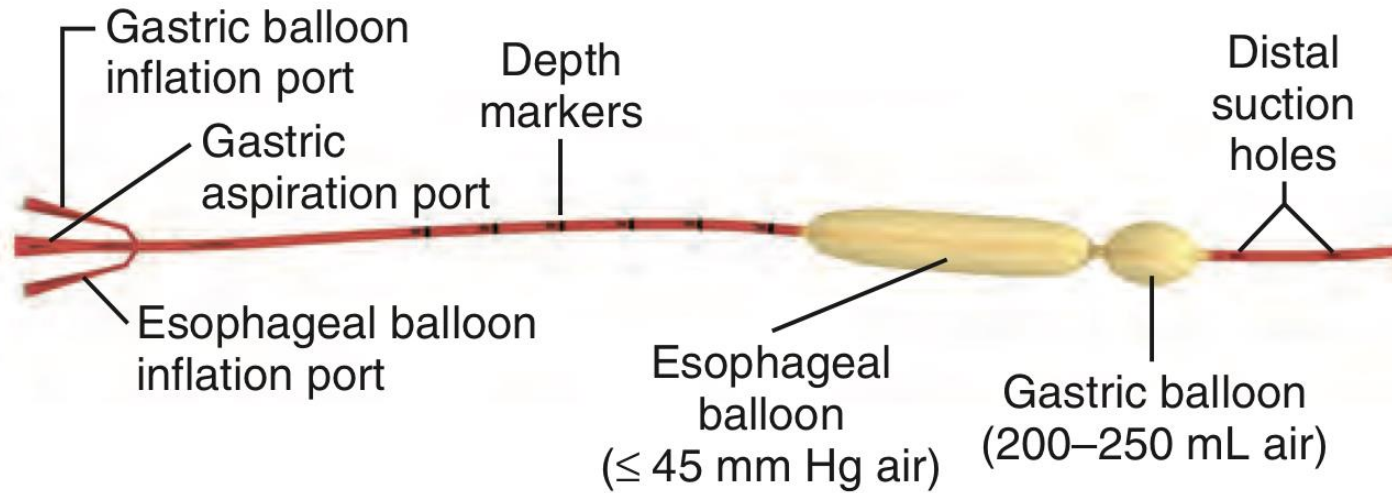
- Unstable patients with massive variceal bleeding
  - Endoscopy is not available
  - Endoscopy is unsuccessful at controlling bleeding
  - Consultant physician are unavailable and vasoactive agent have failed to stop bleeding

## Contraindications

- History of esophageal stricture
- Recent esophageal or gastric surgery



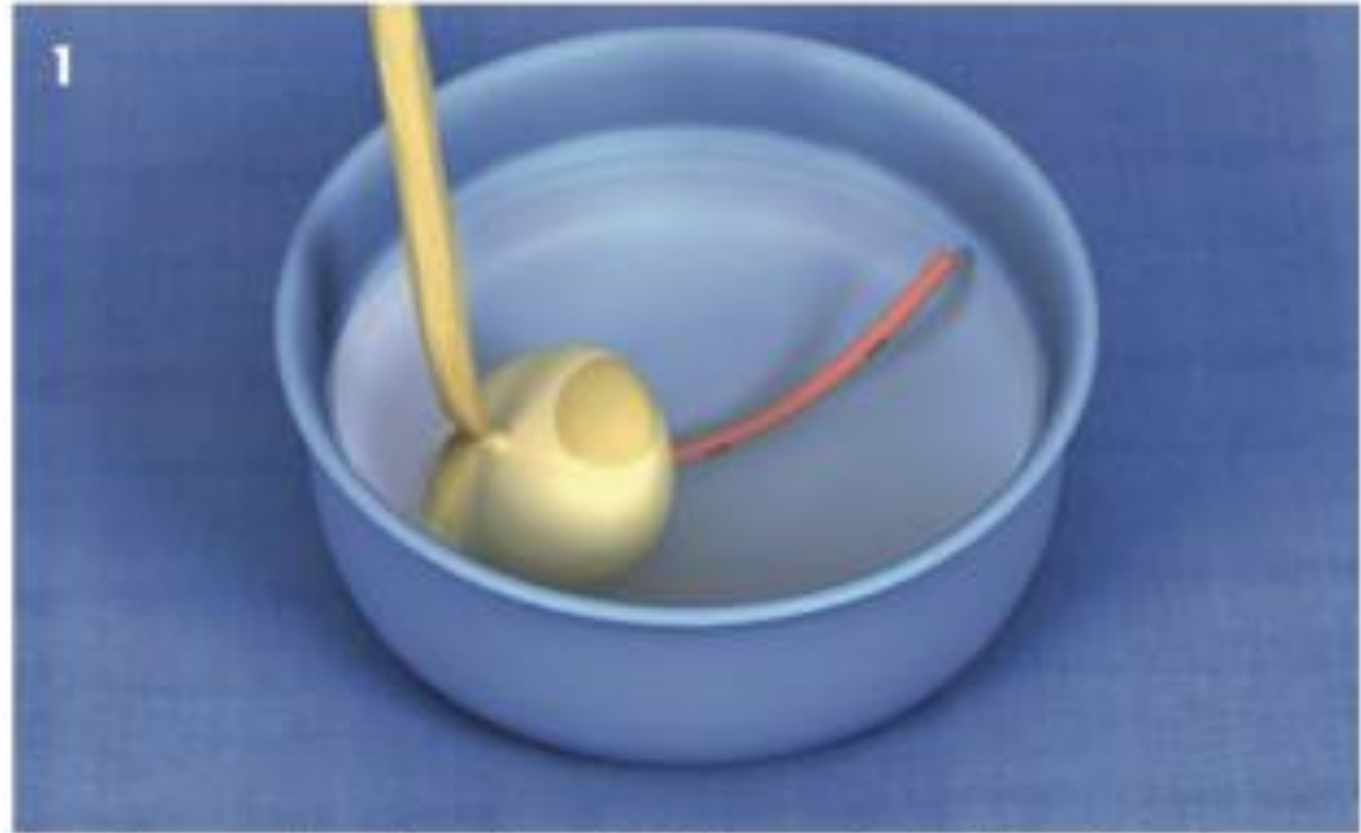
## Equipment



## Equipment

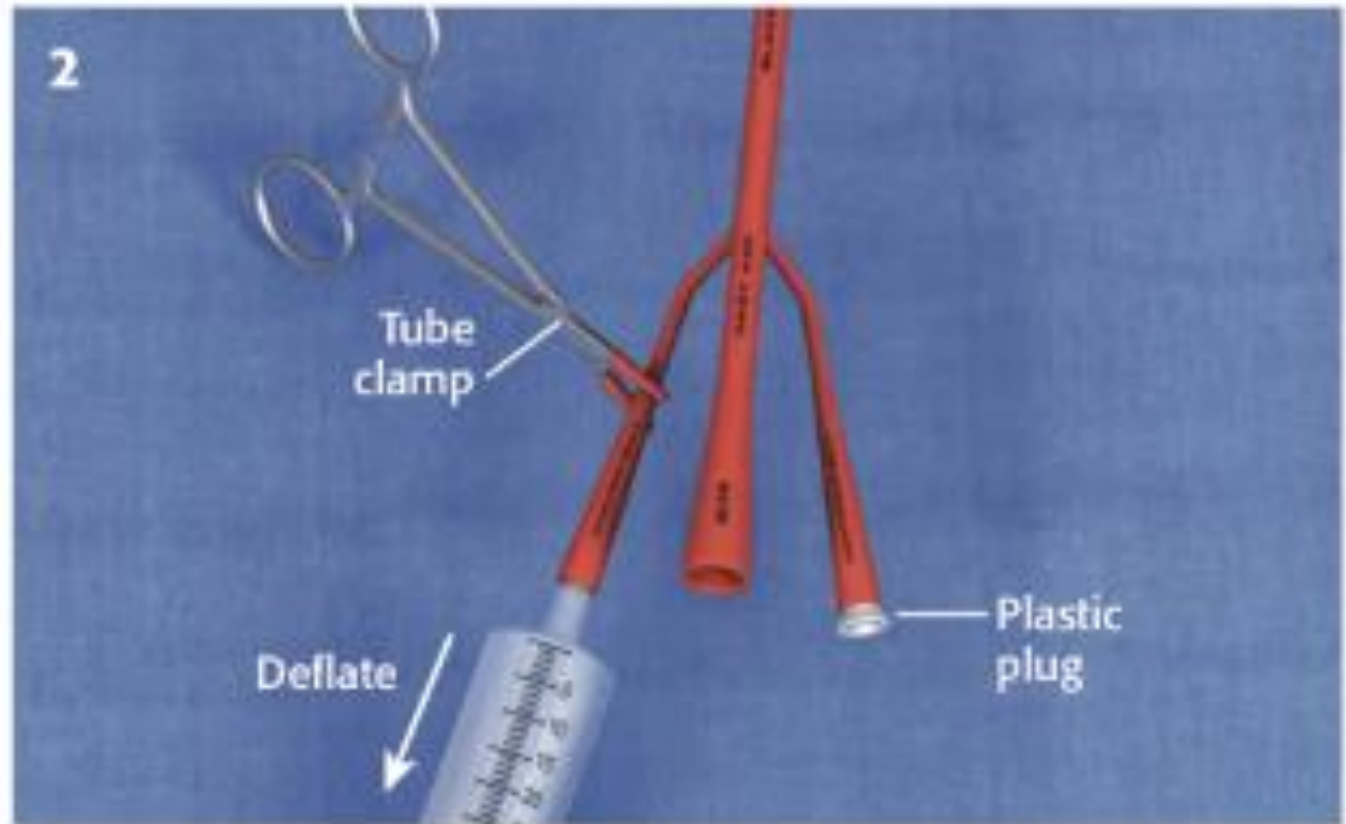
# Sengstaken Blakemore Tube

# Procedure



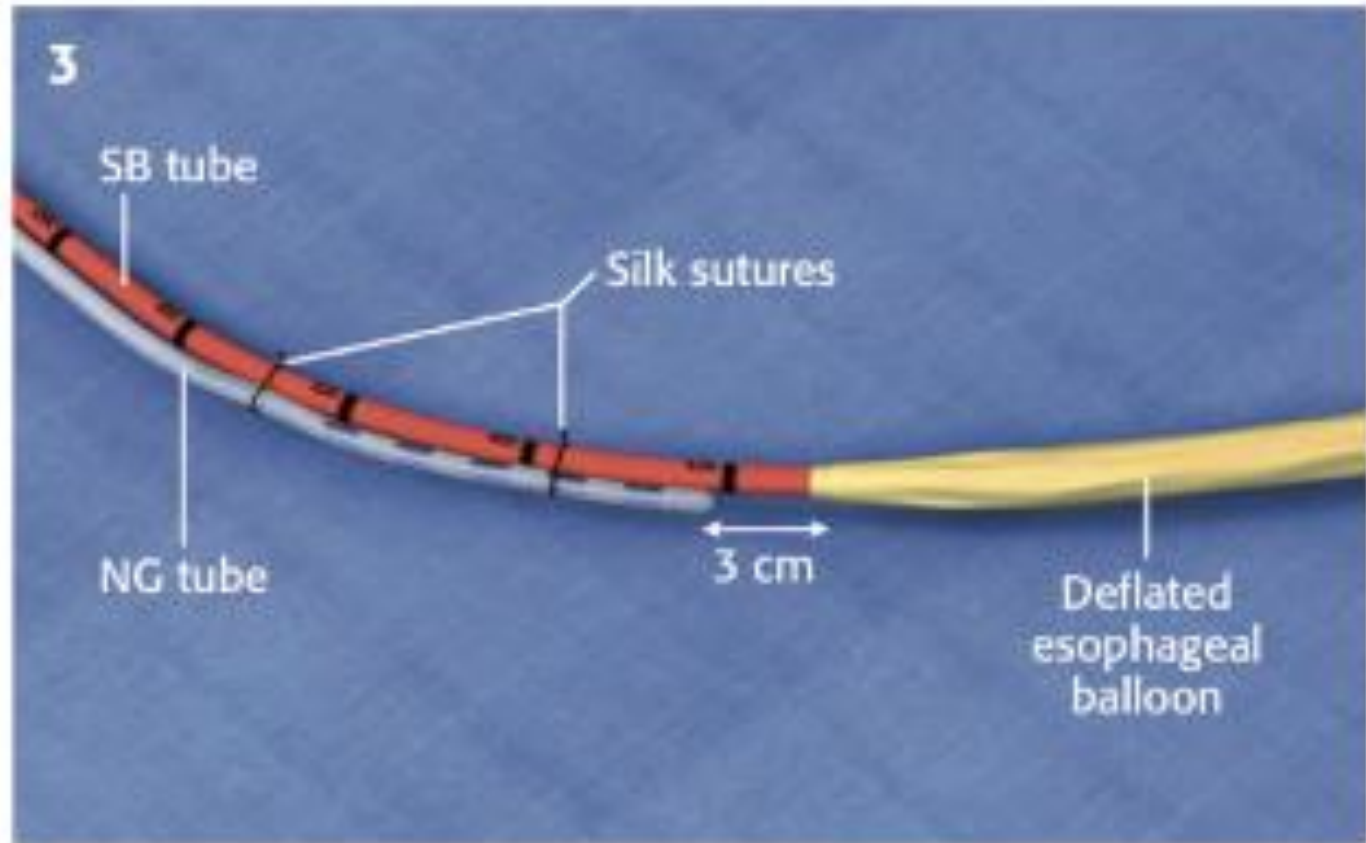
Test the esophageal and gastric balloons for air leaks, by submerging under water during inflation. If time permits, record pressures during gastric balloon inflation (see text for details).

# Procedure



Fully deflate the esophageal and gastric balloons. Clamp the inflation ports with a tube clamp, or insert the plastic plugs supplied with the tube into the tube lumen. Lubricate the tube and balloons with water-soluble jelly.

# Procedure

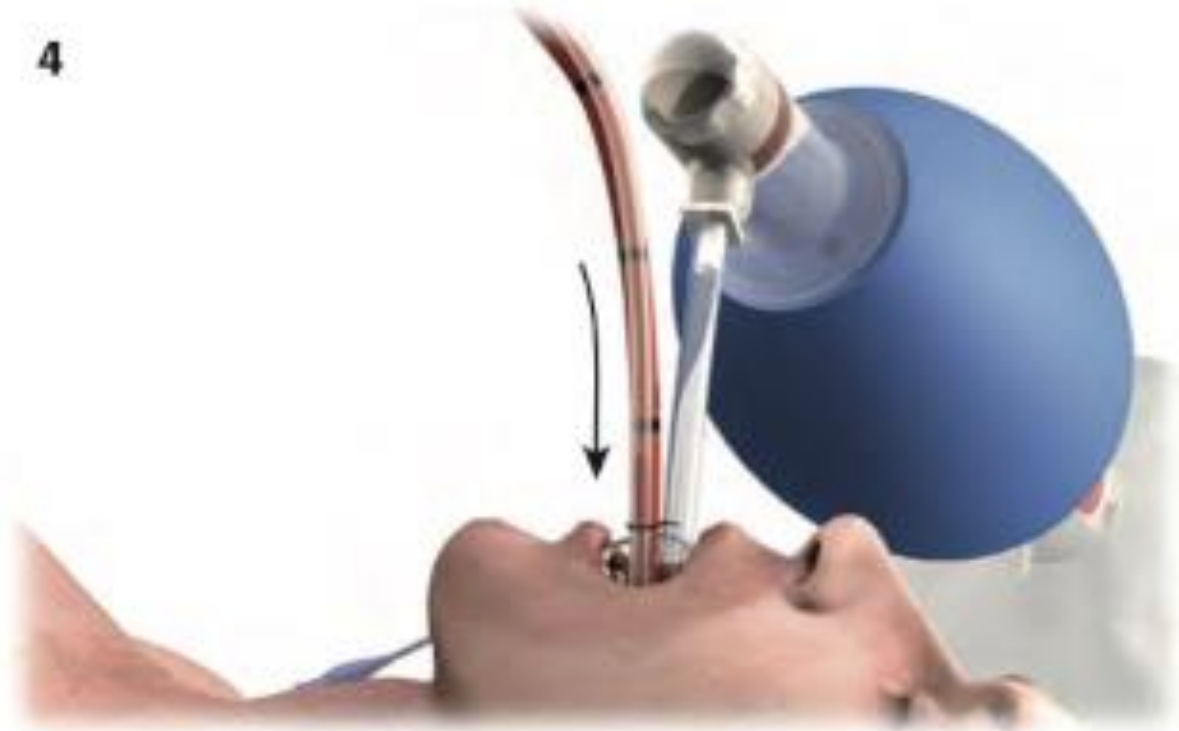


Construct a makeshift esophageal aspiration port by securing a standard NG tube to the SB tube with silk sutures. The distal tip of the NG tube should be 3 cm proximal to the esophageal balloon.



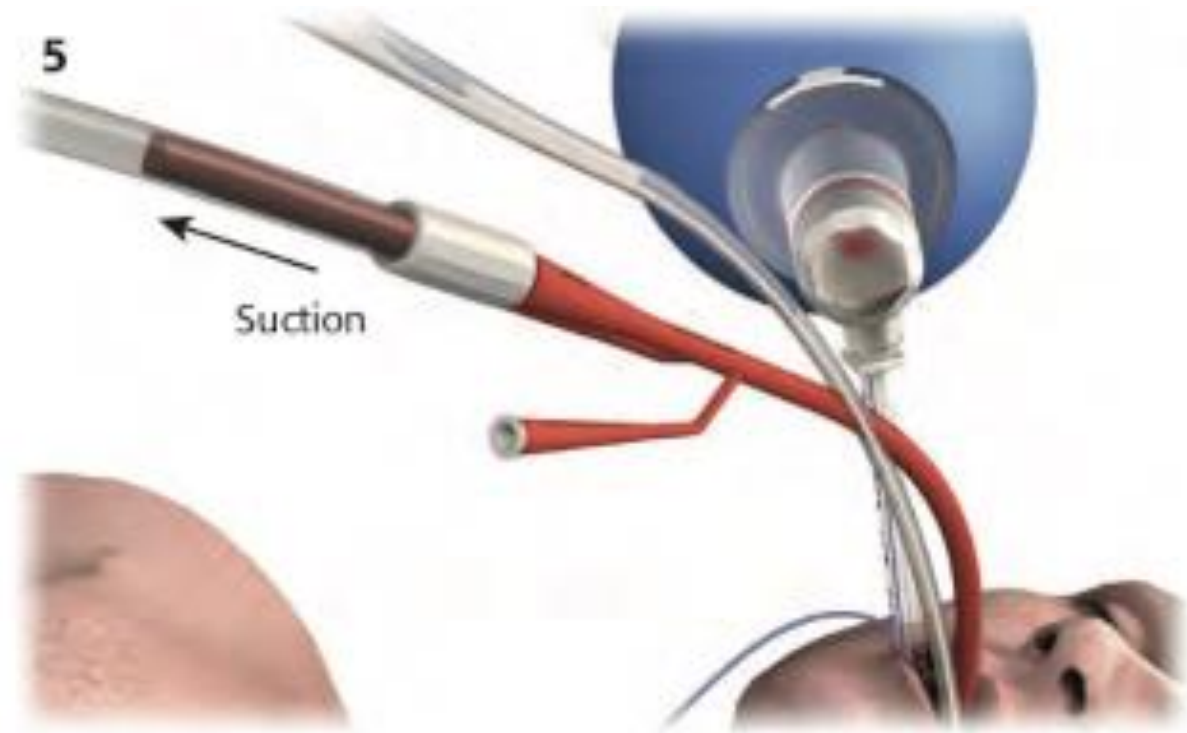
# Procedure

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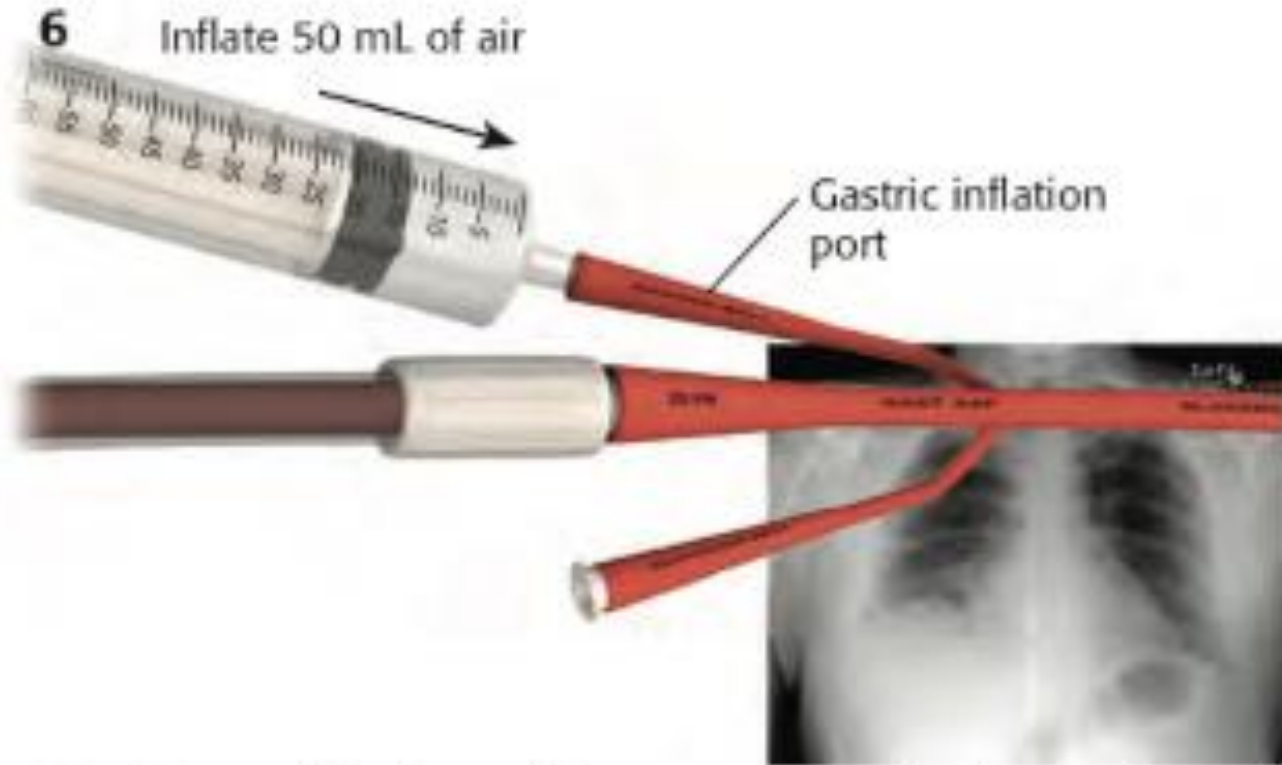
Pass the tube orally (preferred) or nasally, to at least the 50-cm mark, or to the maximum depth allowed by the tube.

# Procedure



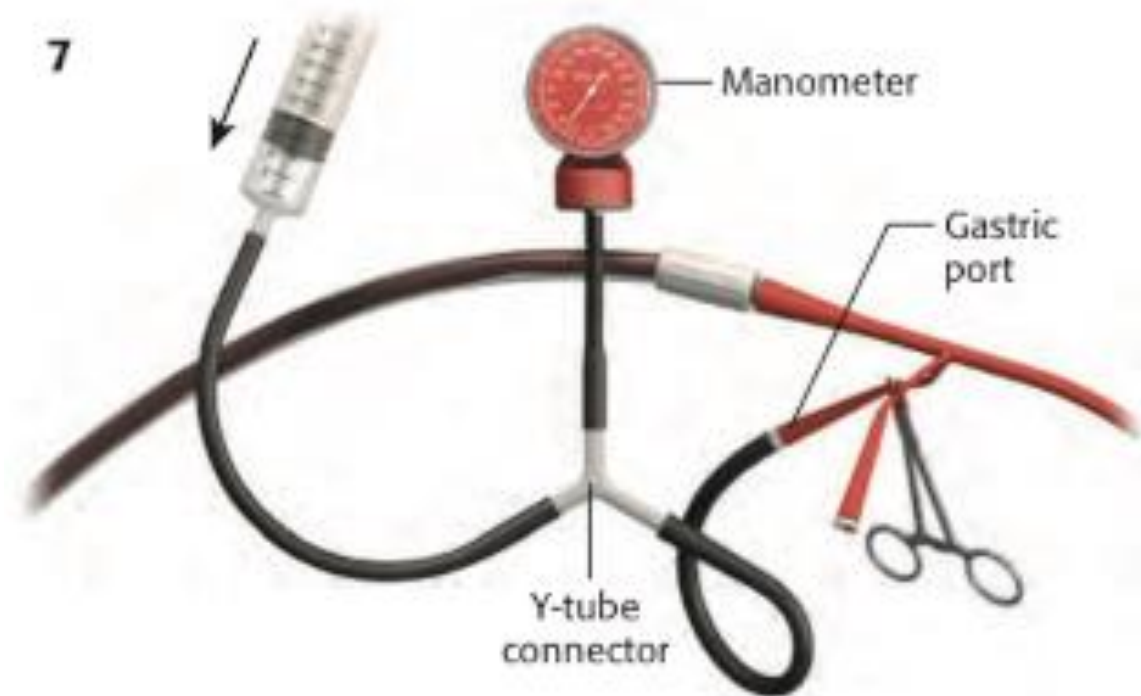
After the tube is fully inserted, apply continuous suction to the gastric and esophageal aspiration ports.

# Procedure



Inflate the gastric balloon with 50 mL of air and obtain a chest radiograph to confirm the position of the gastric balloon below the diaphragm.

# Procedure



Connect a manometer to the gastric inflation port via the Y-tube. Inflate the gastric balloon to the recommended total volume in 100-mL increments. Compare pressure at each 100-mL increment to values obtained during testing. High pressures suggest the gastric balloon has migrated into the esophagus. (See text for details).

# Procedure



When the gastric balloon is fully inflated, clamp the gastric inflation port. Note that bare metal hemostats should not be used, as they may damage the tube. Cover the clamping surfaces with cut pieces of red rubber tubing or tape (*arrow*).

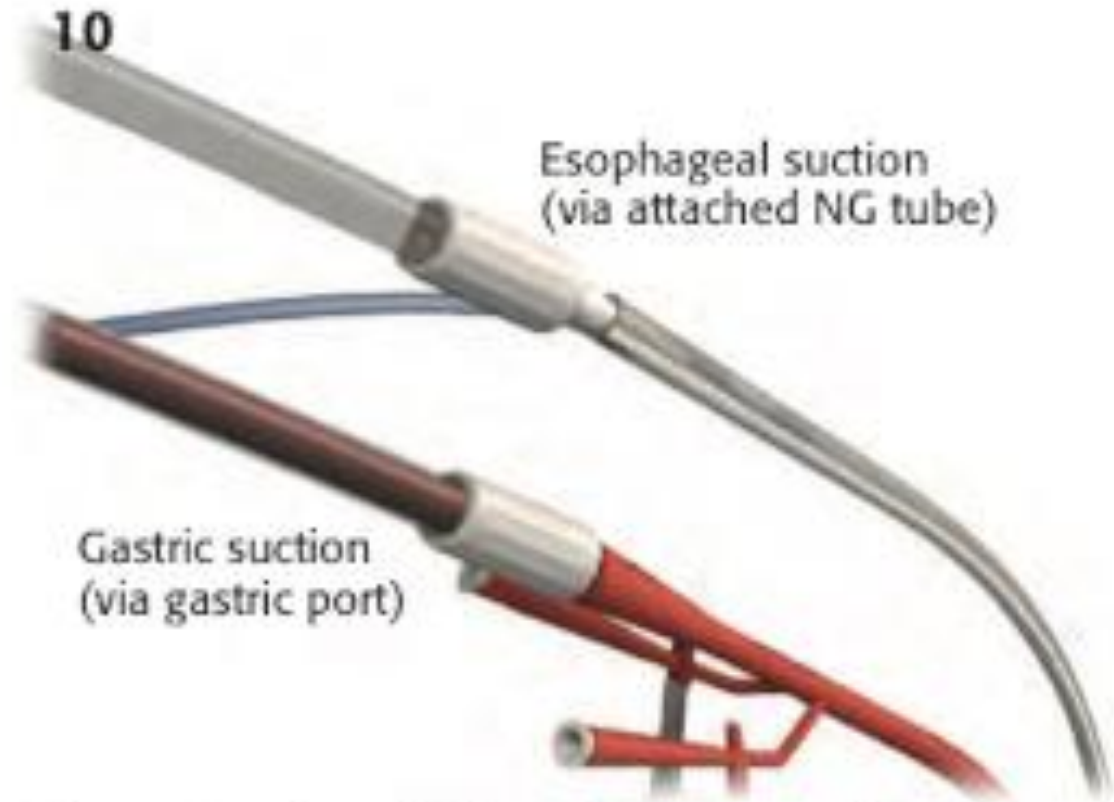
# Procedure

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Slowly pull back the device until resistance is encountered. Apply continuous traction to the tube. (See text and Fig. 41.6).

# Procedure



After traction is applied, continuously suction the gastric aspiration port and the attached NG tube which is in the esophagus. If blood is obtained from either source, then esophageal balloon inflation is required.



# Procedure



Inflate the esophageal balloon using the same configuration as in step 7. In general, do not inflate the balloon  $> 45$  mm Hg (see text). The use of a bulb inflator is helpful for this step.



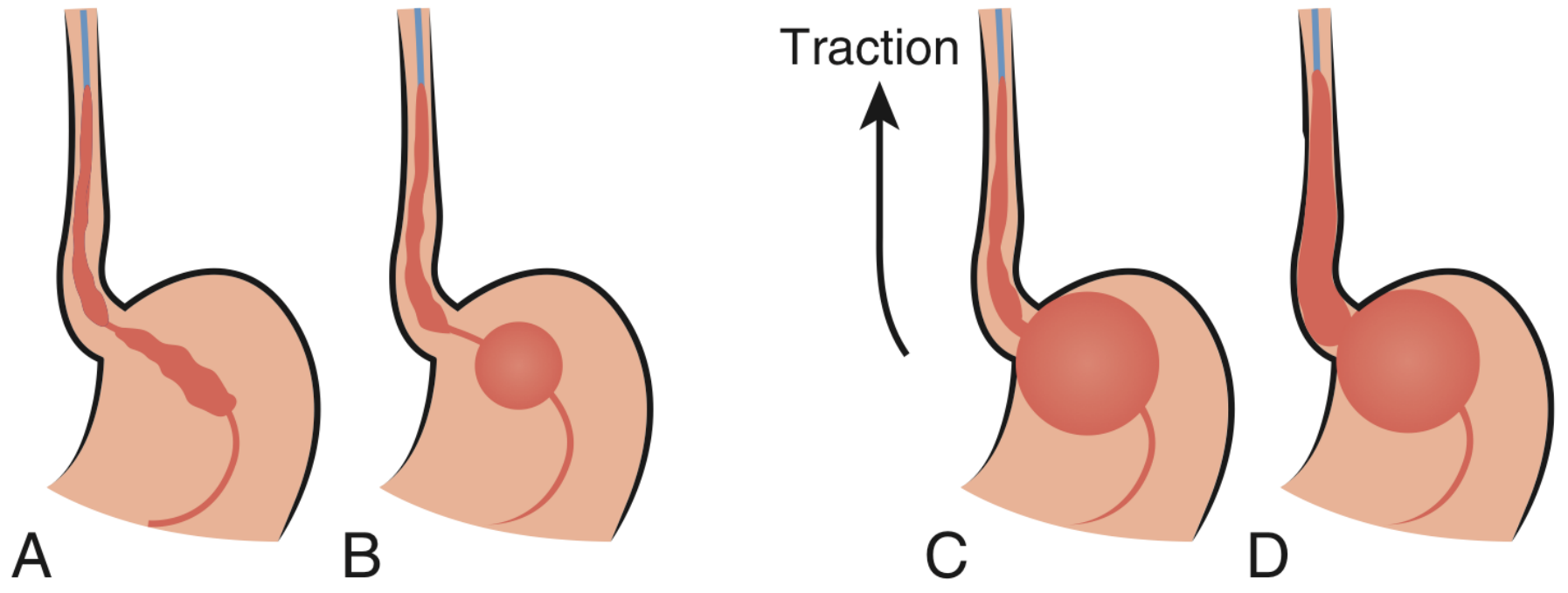
# Procedure



Once hemostasis is achieved, clamp the esophageal inflation port to prevent air leaks.

# Procedure





A

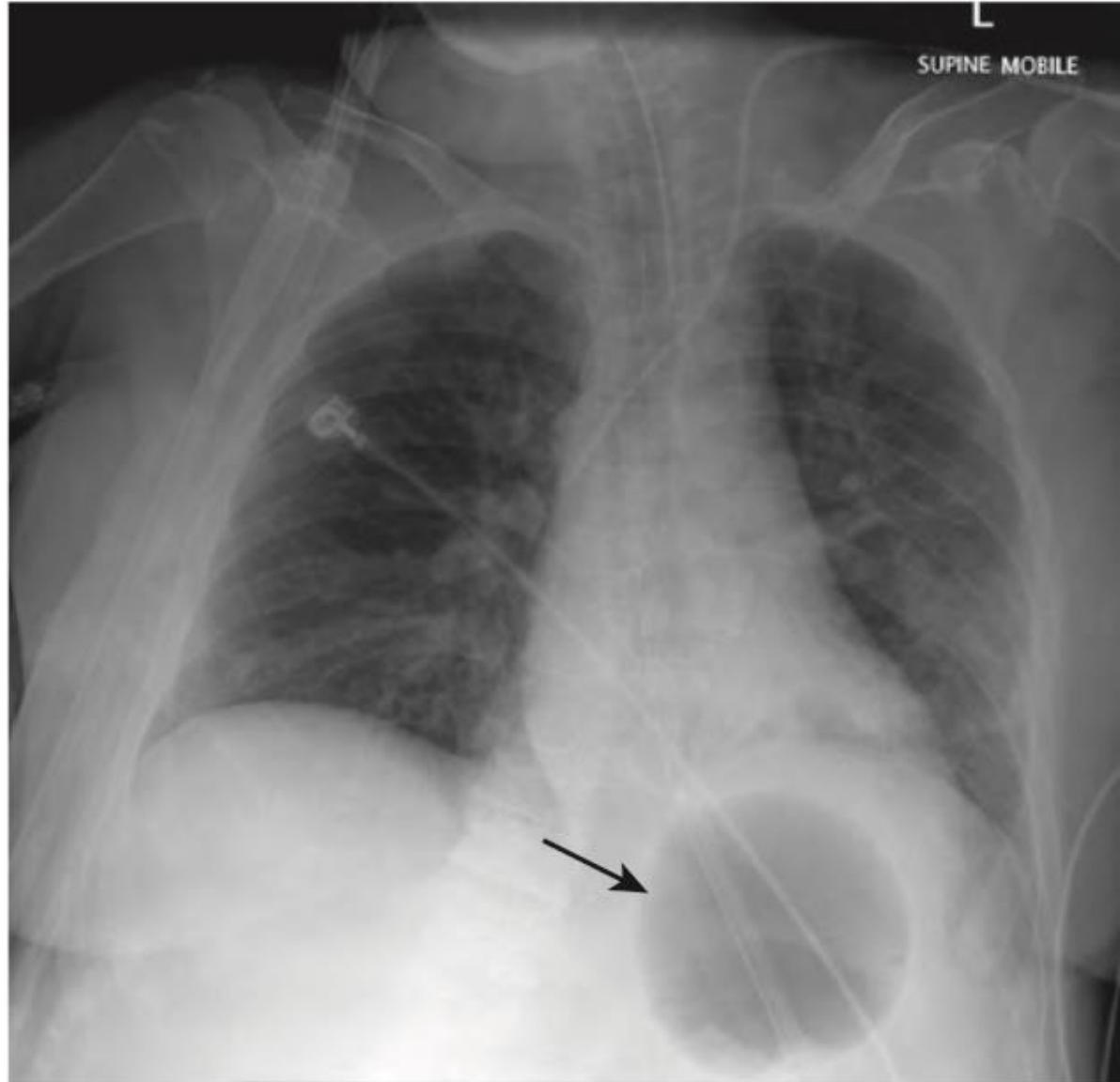
B

C

D

Traction  
↑

CXR



# Complications

- Airway obstruction
- Esophageal rupture
- Aspiration pneumonitis
- Pain
- Ulceration of lips, mouth, tongue, or nares
- Esophageal and gastric mucosal erosions
- Arrhythmia
- Dislodgement of previous variceal bands

# References

