

Gastroenterology & Hepatology Advanced Practice Providers

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# Management of Tubes and Ostomies

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### Mary Ciechoski MS ANP-C

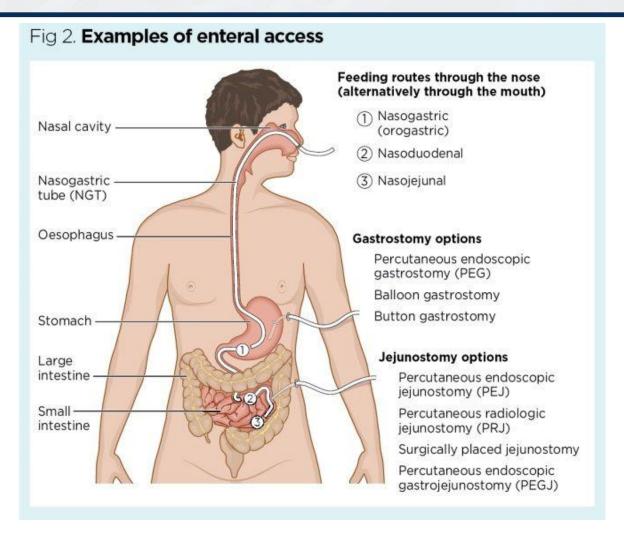
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# **Examples of Enteral Access**



Academy of Nutrition and Dietetics. MNT Versus Nutrition Education. 2006. Retrieved from https://www.eatrightpro.org/payment/coding-and-billing/mnt-vs-nutrition-education; Medical Nutrition International Industry. Better care through better nutrition: Value and effects of Medical Nutrition. 2018. Retrieved from https://medicalnutritionindustry.com/medical-nutrition/medical-nutrition-dossier/.

### Indications for Placement

- Critical illness, mechanical ventilation
- Severe infection of the throat, Possible strictures/tumors of the esophagus
- Decompression
- Anticipate alternate means of nutrition Chemo/radiation therapy, Progressive neurological diseases, Inability to maintain adequate nutrition/hydration
- Risk of aspiration

# Contraindications to Nasogastric Placement

- Extensive naso-facial trauma
- Basilar skull fracture
- Esophageal trauma burns, perforation
- Esophageal obstruction tumor, foreign object
- Severe Coagulopathy
- Patient with abnormal anatomy, gastric bypass or Nissen fundoplication's should be placed under fluoroscopy

# Proper Placement With/Without Guidewires

- Size Matters
- Nasogastric tubes come in various sizes (8, 10, 12, 14, 16 and 18 Fr). Stiff tubes are easier to insert
- Some fine-bore tubes may come with a guide wire to aid placement. Most with a radio-opaque marker at the tip to check its position on X-ray

### NGT/Small Bore Tube Placement Pearls

- Know the anatomy and aim the tube down the nasal cavity into the nasopharynx
- Once the tube enters the nasopharynx apply a small amount of pressure on the tube allowing the tube to move to the back of the throat
- Ask the patient to look down and swallow (once)
- Advance the tube never force the tube
- Confirm placement

# Nasogastric, Oral Gastric/Duodenal Tubes

Determine proper placement

Ultrasound guidance

X-ray confirmation prior to starting nutrition – not all patients cough if the tube is in the wrong position

Secure the nasogastric/duodenal tubes

Tape and devices

**Bridals?** 

### **Confirm Placement**



"Doctor, I'm fairly certain we've been feeding the wrong end for a week."

# Risks Associated With Nasogastric/Duodenal Placement

- Nasal ala & Columella ulceration
- Sinusitis
- Misplacement in the lung pneumothorax
- Aspiration
- Mucosal trauma if suction is used
- Inadequate nutritional support

# **Trouble Shooting**

- Abrasions of the nares and Columella
- Malposition of the tube
- Clogged tubes methods to unclog
- Tube kinking and knotting
- High residuals related to tube position, gastric obstruction, ileus

### Do's and Dont's of NG/Small Bore Tubes

- Always check position prior to administering feeds, medications
- Drugs that shouldn't be crushed: Extended release, tablets with coating
- Avoid crushing medications if a liquid or slurry can be prescribed
- Always flush the tube before and after administering medications/enteral feeds



### G-Tubes, PEG Tubes and PEJ Tubes

- Indication for placement
   Long term need for nutrition support
   In preparation for chemotherapy/radiation therapy
- Tube Care and maintenance
   Tube position length and bumper placement
   Skin Care

# Trouble Shooting PEG/G-Tubes

- Malposition tube migrating into the stomach
- Leaking from stoma
- Skin excoriation and infection
- Buried Bumper
- Tube inadvertently removed
- Tube Clogging

# Gastroduodenal and Jejunostomy Tubes

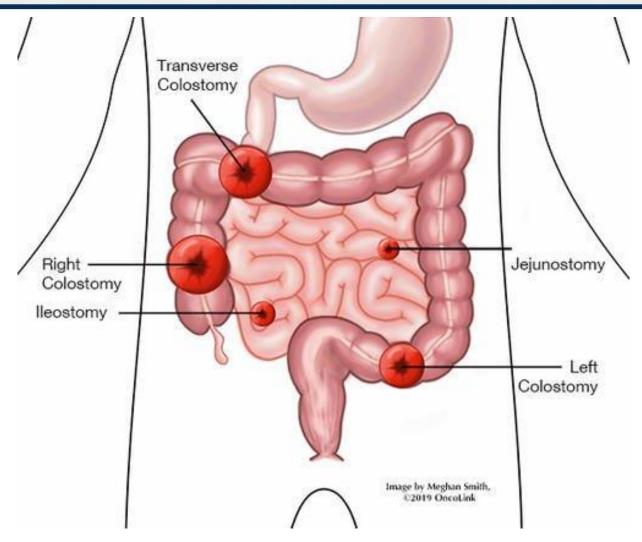
### Indications:

- Inability to tolerate gastric feeds
- Need to decompress the stomach while administering enteral feeds
- Gastric dysmotility/obstruction
- Pancreatitis

# Gastroduodenal and Jejunostomy Tube

- Placed endoscopically, Surgically or with interventional radiology
- Allows for enteral feeds via the J-port and decompression via G-Tube
- Prone to clogging
- Gastroduodenal tube easily become dislodged

# **Examples of Ostomies**



American Cancer Society. Colostomy: A Guide. 2017.

Found at: <a href="http://www.cancer.org/treatment/treatmentsandsideeffects/physicalsideeffects/ostomies/colostomyguide/colostomy-guide-toc">http://www.cancer.org/treatment/treatmentsandsideeffects/physicalsideeffects/ostomies/colostomy-guide-toc</a>

### Indications for Ostomies

- Small or large bowel obstruction
- Obstructing Lesions
- Strictures or fistulas
- Intestinal injury trauma, necrotizing enterocolitis
- Genetic conditions Hirschsprungs
- Severe constipation or colonic inertia

### Stoma Sites

- Patient should be able to see the ostomy
- Skin should be flat without creases or scars.
   Belt line should be avoided

lleostomy – usually Right lower quadrant

Sigmoid colostomy – usually left lower quadrant

# lleostomy

 Indications – To rest the bowel in order to heal distal mucosa or protect anastomosis

Evacuate stool following a total colectomy - severe Ulcerative Colitis, Crohn's Disease, Neoplasm

Relieve bowel obstruction

# Complication of Ileostomy

### Complications:

- Skin excoriation
- Dehydration and depletion of electrolytes
   (K,Na, Mg) Instruct pt on signs and symptoms
- Malnutrition of nutrients B12
- Retraction or Prolapse
- Parastomal Hernia
- Stricture or fistula formation
- Risk of nephrolithiasis

# High Output Ileostomy

- Monitor for dehydration dry mouth, decreased urinary output, abdominal pain, fatigue
- Consider trial of Loperamide or Lomotil
- May need to consider codiene, Octreotide, Gattex
- If the output is greater than 1500ml per day – may need IV hydration. Encourage patient not to increase PO fluid when experiencing dehydration

# Colostomy

### Indication:

- Severe refractory Ulcerative Colitis, Crohn's Disease
- Severe diverticulitis recurrent episodes, diverticular abscess
- Genetic syndromes and colonic inertia
- Neoplasm

# Complications of Colostomy

- Skin excoriation ulcers, dermatitis, local skin infections – topical antibiotics, antifungal cream barrier creams and skin prep under the wafer
- Obstruction or ischemia
- Necrosis, Retraction and prolapse need surgical intervention
- Stenosis
- Bleeding



THAT WOULD BE A WHOLE LOT FUNNIER IF IT WEREN'T HOOKED UP to YOUR COLOSTOMY BAG."

CartoonStock.com

# Risk Factors Associated With Complications

- Tobacco use
- Obesity
- Chronic steroid use
- Malnutrition
- Crohn's Disease, UC, cancer
- Advanced Age

### Care of Ostomies

- Size of the wafer and particular bag should be determined by a Stoma specialist
- Closed ostomy bag needs to be replaced often
- Open ostomy bag can be emptied and resealed
- Many bags have a gas release valve
- Empty bag when 1/3 to ½ full
- Make sure the bag is odor proof

### **Patient Concerns**

- Gas:
  - Gas release valve on the bag
  - Deodorant can be added to the bag
  - Simethicone 125 mg 1 2 before meals
  - Avoid gassy food beans, broccoli
- Obstruction: Chew nuts well. Avoid skin from fruit and corn

### **Patient Concerns**

- No restrictions on exercise
- Ostomy is not affected by sexual intercourse
- Bathing can be done with or without the pouch
- Covering the Ostomy Cummerbuns are available and cover the ostomy and the bag

# Summary

- Know the purpose of the tube, type of tube, locations of the tube and assess for complications
- Know the location of the Ostomy and the potential complication
- Patient education is essential
- Know when to refer to a specialist

### References

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