

# Diet in gastro-intestinal disorders- constipation

- The gastrointestinal tract functions both as a barrier to substances from the environment & as a entry point for nutrients and other substances
- Many disorders that affect GI tract & its accessory organs influence the nutritional status of patient

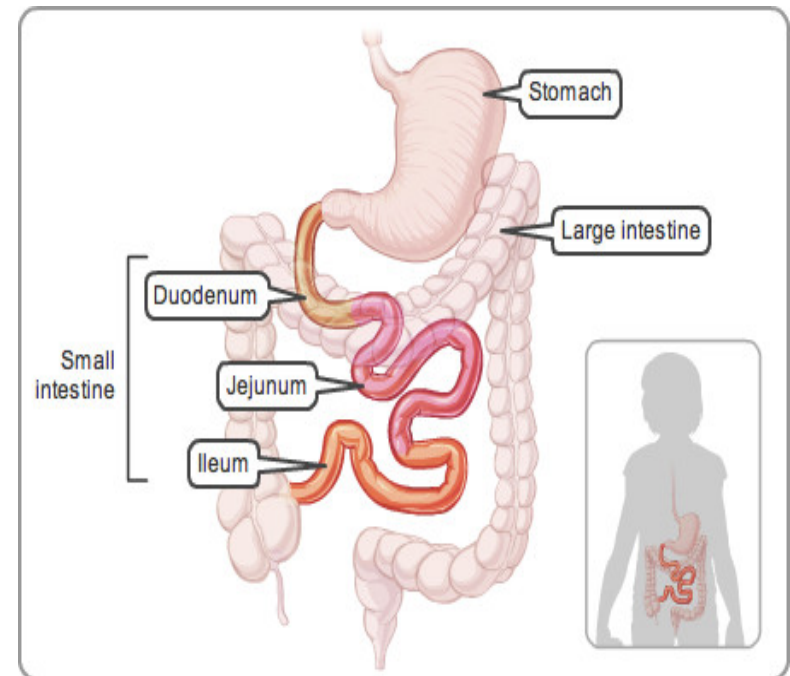
# Parts of GI tract

Esophagus

Stomach

Small intestine including duodenum, the jejunum and the ileum

Large intestine includes cecum,  
colon, rectum & anal canal



# Digestive action

- Mechanical digestion is the physical breaking down of food into smaller pieces
- Chemical digestion involves the splitting of complex molecules into simpler form

# Dietary factors associated with ailment of G.I tract

- Acidity
- Inadequate fiber
- Fat
- Gluten substances
- Lactose

# General aspects of digestion of food and gastric acidity

- Foods have a pH of 5-7
- pH of HCl in stomach is less than 2
- Citric foods have a pH of 3.5 or more
- Therefore no food is acidic enough to change the acidity of the contents of stomach
- Patients suffering from acidity should not avoid Vitamin C rich foods

- Protein rich foods neutralize gastric acid
- Milk is the choice of food to treat acidity
- Fat reduces acid production and decreases motility
- Addition of cream to milk is used to treat peptic ulcer
- Use cream in moderate amounts to avoid atherosclerosis
- Stimulants which increase the production of gastric acid should be avoided

# Constipation

- It refers to a decrease in a person's normal frequency of defecation, especially if the stool is hard, dry or difficult to expel





Infrequent or insufficient emptying of bowel leads to

- Malaise
- Headache
- Coated tongue
- Foul breath
- Lack of appetite

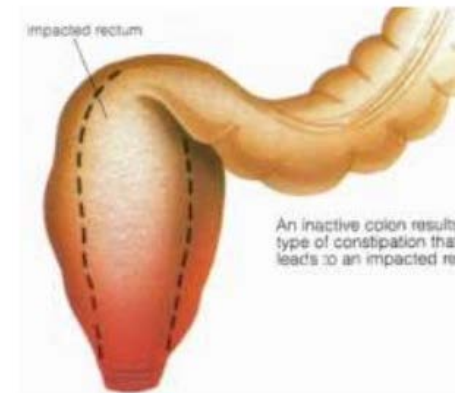
These symptoms disappear after evacuation

# Atonic constipation

- Often called as LAZY BOWEL
- Inactive colon which has loss of muscle tone in the intestinal walls
- Observed in very old people

## Diet

- 800 gm of fruits & vegetable (for normal bowel)
- Vitamin B supplements
- Moderate amount of bran
- Avoid tea



# Spastic constipation

- Opposite to atonic type
- Over stimulation of the intestinal nerve endings which result in irregular contractions of the bowel

# Causes

- Excessive use of cathartics
- Condiments & tobacco
- Eating very coarse foods
- Too much tea, coffee & alcohol



## Diet

- Smooth, non-irritating foods, vegetables & fruit juices are allowed in limited amounts
- Low fiber diet

# Keys to over come constipation

- Increasing the fiber in the diet
- Adequate amount of water
- Exercising regularly

# MNT

- Adequate soluble & insoluble fiber

## Fiber:



Colonic fecal fluid  
Microbial mass  
Stool weight & frequency  
Rate of colonic transit

Softens stools & makes them easier to pass

# Diet

Recommended amount of fiber:

14g/ 1000kcal

Women- 25g/d

Men- 38g/d

Best: whole grains, fruits, vegetables legumes, seeds, nuts

brans & powdered fiber supplements when intake not sufficient