

## Science 9 – Chapter 7 Notes

### 7.3 – The Intestines (p.140-144)

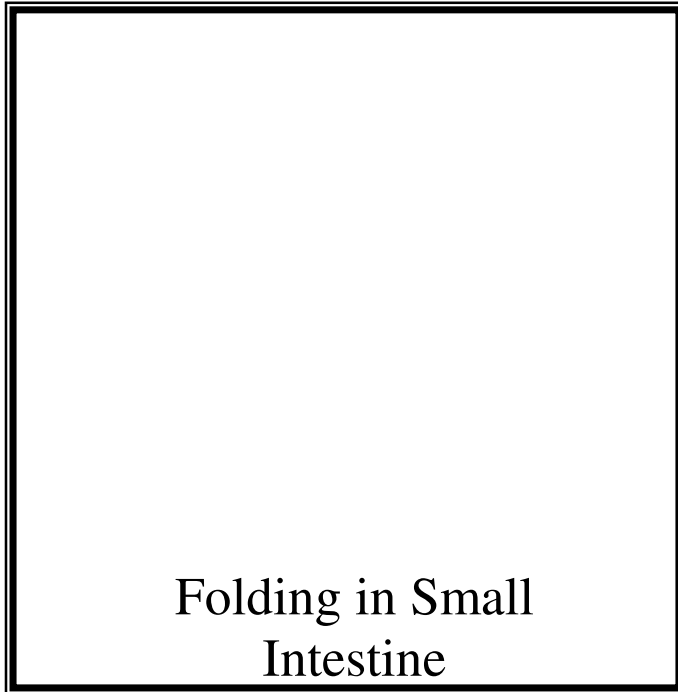
- food coming from the stomach-squeezed into the \_\_\_\_\_ intestine. (longest section of dig. System)
- \_\_\_\_\_ cm diameter \_\_\_\_\_ m long.
- **Large intestine** is \_\_\_\_\_ cm diameter \_\_\_\_\_ m long.
- Creamy mixture-acidic from stomach-  
\_\_\_\_\_ coats walls
- \_\_\_\_\_ moves mixture through S. intestine.
- food takes \_\_\_\_\_ to \_\_\_\_\_ hours to get through S.I.
- \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ further broken down in S.I. with the help of digestive \_\_\_\_\_
- Proteins → \_\_\_\_\_
- Carbohydrates → small molecules of \_\_\_\_\_ (glucose)
- Vitamins released
- In S.I. most molecules made **small enough** to enter cells

- some enzymes from \_\_\_\_\_ of S.I. wall.
- more digestive \_\_\_\_\_ come from the **pancreas** (near stomach)
- **pancreas** releases substance to neutralize \_\_\_\_\_ acid from stomach
- the \_\_\_\_\_ is an organ above the stomach on upper right abdomen. Helps in digestion of \_\_\_\_\_
- **Liver** produces green **bile** – stored in **gall-bladder**.
- **Bile**: Large fat droplets → smaller droplets (greater surface area for enzymes to work)

### 3 functions of **liver**:

1. produces bile
  2. controls storage of useful subst.
  3. Breaks down unusable subst. for removal
- **gallstones** can form in gall bladder (cholesterol in bile)
  - after 25 cm. **Absorption** takes place.
  - **Absorption** – the process by which \_\_\_\_\_
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- walls of S.I. folded many times to provide high \_\_\_\_\_ for absorption.



**If all unfolded S.I. cover floor of large room!**

### Large Intestine and Elimination

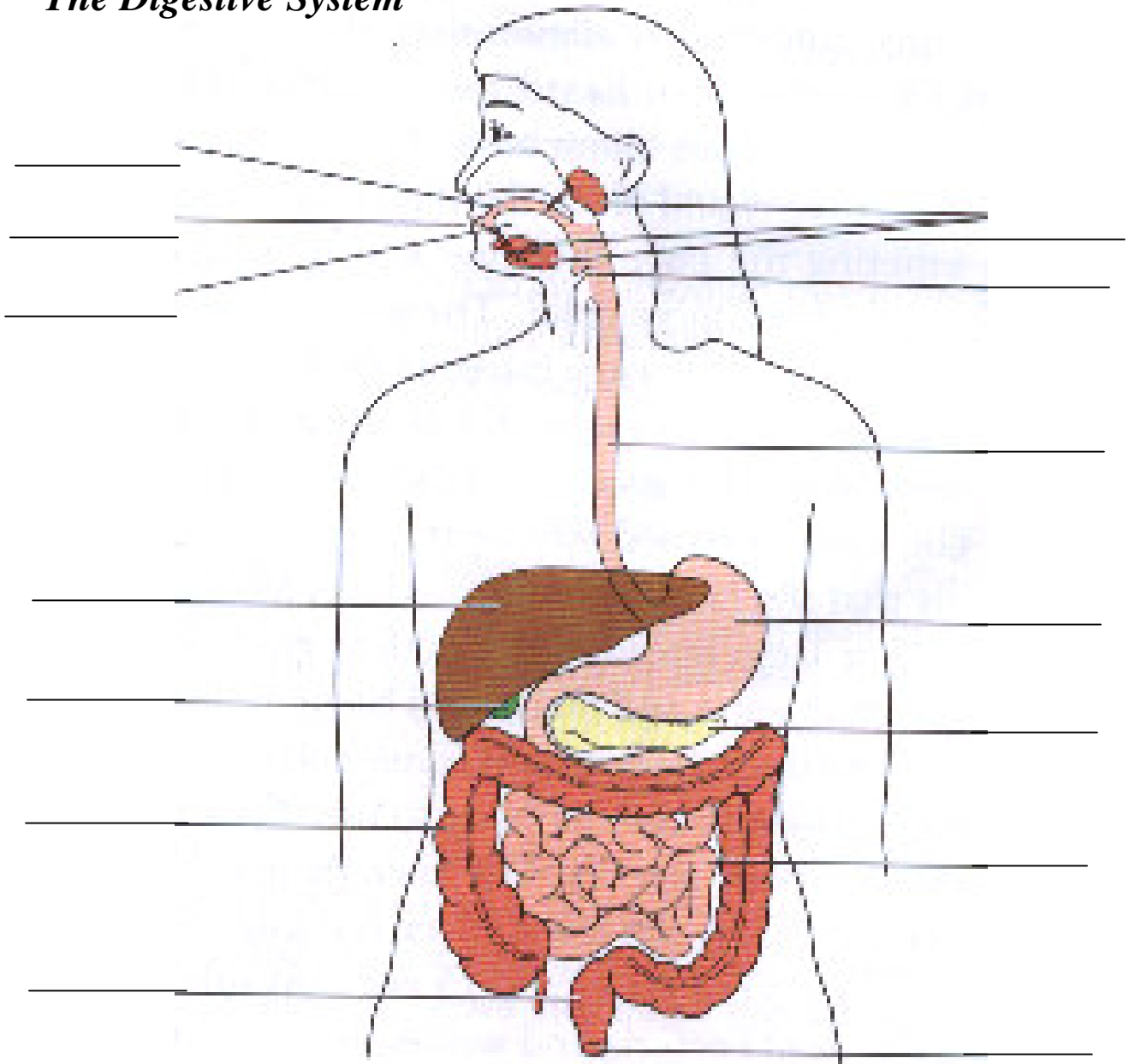
- Wall of Large Intestine produce \_\_\_\_\_ (lub. for remains to pass through)
- Stuff entering L.I. – mainly water and indigestible fibre.
- Main function of L.I. elimination
- Elimination -

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- Wastes your body eliminates called \_\_\_\_\_.

- Cells of L.I. absorb \_\_\_\_\_L to \_\_\_\_\_L of water and chemicals every day. Makes feces drier. Water re-used by body.
- High amounts of **bacteria** in L.I. –warm, moist, food (feces)
- **Bacteria** - collect \_\_\_\_\_ from the waste material.
  - make vitamin K for blood clotting
  - consume some waste material
- **Feces** – 75% water—25% solids (dead bacteria and fibre)
- **Fibre** – important in diet – helps feces hold water for easy movement.
- Takes \_\_\_\_\_ to \_\_\_\_\_ hours material pass through L.I.
- **Peristalsis** moves food along. (codeine/morphine slows down peristalsis—too much water absorbed. “Stool” becomes hard (**constipation**))
- **Antibiotics** – kill bad and good bacteria. Vitamins not produced & not enough water absorbed. Feces too watery – **diarrhea**
- **Rectum** – small section at end of L.I. – expands to hold feces.
- Feces—leaves through **anus** (opening)

## (Label Digestive system Diagram – handout)

### *The Digestive System*



## **7.4 – Taking Care of Dig. System (p.145-147)**

**Heartburn** – stomach fluid (acidic) bubbles up to esophagus (acid reflux disease)

**Ulcer** – a sore on the wall of the dig. System. From \_\_\_\_\_ acid and pepsin in stomach. Happens when not enough mucus. (lower esophagus, Stomach or S.I.) Caused by type of bacteria, stress, poor diet etc. Can eat hole in organ. Acidic contents leak onto other organs

**Constipation** – feces builds up in rectum and L.I.- become swollen. Not enough fibre, codeine/morphine.

**Diarrhea** – Feces too watery-eliminated too often. Can be caused by infection, stress, antibiotics  
Over long time → serious loss of water and nutrients.  
MAJOR cause of death young children in 3<sup>rd</sup> world.

Problems lessened by:

- proper diet (eg. Fibre) -enough water
- eating more slowly-avoid foods that give you problems. Some OTC meds help symptoms.