

The Digestive System

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Reading

Tracing the path of food

Food starts the digestive process when you place it in your mouth. The teeth mechanically break the food into smaller and smaller pieces and mix the food with saliva produced by the salivary glands. Saliva serves to moisten and lubricate food, making it easier to **swallow**, it also contains enzymes that begins digestion of carbohydrates, although, the enzymatic action of saliva is **negligible**. Swallowing moves the food, now called a bolus, into the oropharynx, past the opening to the larynx, which is closed, as part of the swallowing **reflex**, by a flap-like structure called the epiglottis, and into the 25 cm long esophagus. The esophagus is a muscular tube, which undergoes peristalsis which pushes the bolus into the stomach.

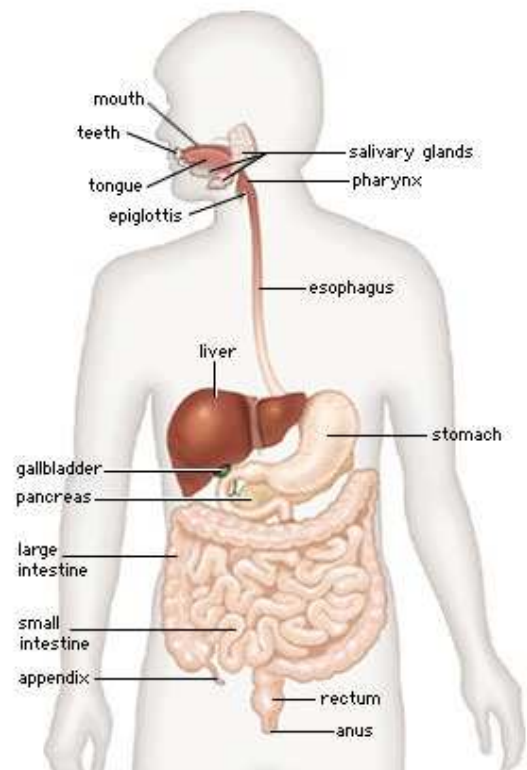
The stomach is a “J” shaped, **hollow**, muscular organ that serves to store food temporarily and serve as the place where chemical digestion (mainly of proteins) begins. The two major chemical **agents** in the stomach are HCl and the enzyme pepsin. Together they enzymatically digest large proteins into smaller protein **fragments**. Additionally, the food is mixed with water **secreted** by the stomach to create a watery mixture called chyme. The chyme is released slowly from the stomach, under the control of hormones, into the 6 m long small intestines for further digestion.

The small intestines **handle** the **vast** majority of the chemical (enzymatic) digestion of food. Enzymes come not only from the wall of the small intestine itself, but from the pancreas. The pancreatic duct opens into the proximal part of the small intestine, called the duodenum. In addition, the duodenum also receives substances from the liver which **aid** in the digestion of lipids. The duct from the liver (common bile), usually shares a common opening with the pancreatic duct into the duodenum. As the watery mixture of food and enzymes move through the distal two parts of the small intestines, the jejunum and the ileum, the nutrient products of digestion are **absorbed** through the wall of the small intestine into the blood. The wall of the small intestine is highly **modified** and has an **enormous** surface area, which allows it to effectively absorb virtually all the nutrient material from the food you eat.

The undigested material **leaves** the small intestine and enters the 1.5 m long large intestine. The **primary** function of the large intestine is to process what is left into feces. An important function of the large intestine is to reabsorb most of the water that had been mixed with the chyme as it passed through the stomach and the small intestines. Diarrhea results when this reabsorptive function is **impaired**. The large intestines also absorb certain vitamins and minerals as well. The rectum is near the distal end of the large intestine, the rectum is where feces can be **stored** until a **convenient** time for defecation.

Don't confuse the term colon and large intestine. Sometimes you will hear the terms used interchangeably – however, this is technically not correct. The colon is a subdivision of the large intestine.

The digestive tract must be **viewed** as a long tube, which starts at the mouth and ends at the anus. In anatomy, when discussing tube-like structures, in which movement is **unidirectional**, it is common to refer to structures along the path of the tube using the words proximal and distal. For example, the stomach is distal to the esophagus or the esophagus is proximal to the stomach.



Check point – Vocabulary

Instructions: work with a partner to match the terms from the preceding text (column A) with their contextual meanings in column B.

A	B
1. swallow	A. a small part of something
2. negligible	B. amassed / accumulated
3. reflex	C. considerable / substantial / large part of something
4. hollow	D. considered / thought of as
5. agents	E. dysfunctional / not working correctly
6. fragments	F. great / large / huge
7. secreted	G. having a space or cavity inside
8. handle	H. involuntary set of purposeful muscle contractions
9. vast	I. main / most important / most significant
10. aid	J. of little significance / of little importance
11. absorbed	K. opportune / suitable
12. modified	L. something that has power to do something
13. enormous	M. to change something for a special purpose
14. leaves	N. to discharge / to release
15. primary	O. to exit
16. impaired	P. to help
17. stored	Q. to manage something / to take care of some task
18. convenient	R. to move forward but not backwards along a path or route
19. viewed	S. to take in something / to take up something
20. unidirectional	T. to take into the stomach

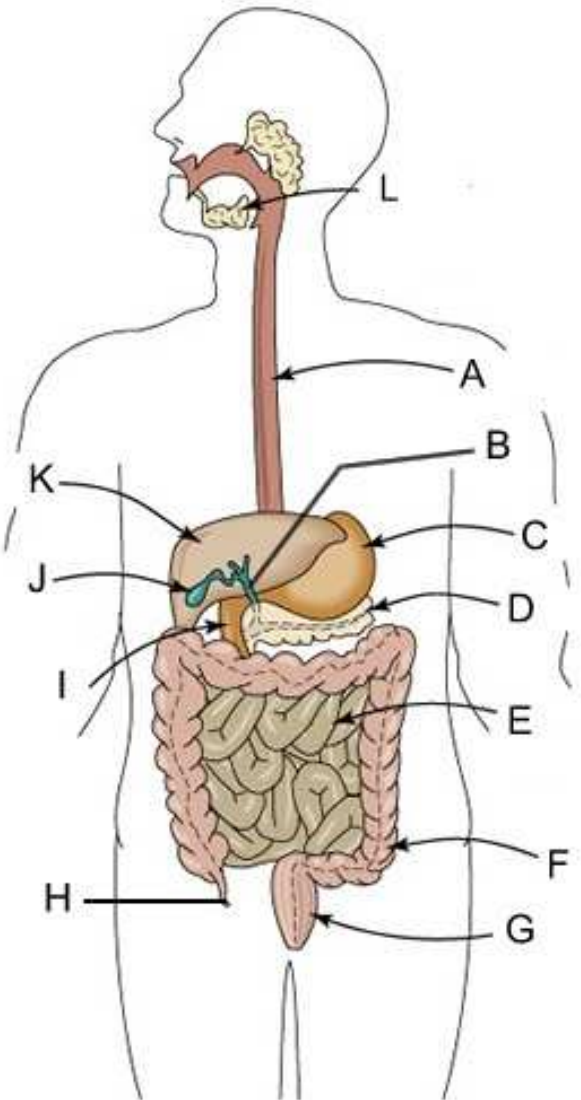
Check point – Tricky spelling

Instructions: work with a partner to correct the spelling of the words in column A. Write the corrected words in the spaces provided in column B.

A	B
1. proress	1. _____
2. brake	2. _____
3. moisen	3. _____
4. easier	4. _____
5. enzymes	5. _____
6. larinks	6. _____
7. orjan	7. _____
8. protiens	8. _____
9. chime	9. _____
10. intestins	10. _____
11. hormoanes	11. _____
12. handel	12. _____
13. pankreas	13. _____
14. recieves	14. _____
15. kommon	15. _____
16. blood stream	16. _____
17. esofagus	17. _____
18. Diarrea	18. _____
19. impared	19. _____
20. rektum	20. _____
21. defekation	21. _____
22. veiwed	22. _____
23. negligible	23. _____
24. mixxed	24. _____
25. dukt	25. _____

Check Point – Anatomy

Instructions: work with a partner and place the letters from the diagram in the blanks next to the corresponding words.

Digestive Anatomy	
Appendix _____	 <p>The diagram shows a human torso with the digestive system highlighted. Labels A through L point to various organs: A (esophagus), B (stomach), C (liver), D (gallbladder), E (small intestine), F (large intestine), G (rectum), H (anus), I (pancreas), J (duodenum), K (salivary gland), and L (salivary gland).</p>
Common bile duct _____	
Duodenum _____	
Esophagus _____	
Gall bladder _____	
Large intestines _____	
Liver _____	
Pancreas _____	
Rectum _____	
Salivary gland _____	
Small intestines _____	
Stomach _____	

Clinical Corner

Achalasia: failure of a digestive sphincter to relax.

Anorexia: loss of appetite and inability to eat. (Sometimes the terms anorexia is used as a shortened form for Anorexia Nervosa which is a psychiatric eating disorder.)

Appendicitis: inflammation of the appendix.

Binge: brief excessive consumption of food.

Bolus: food that has been chewed and mixed with saliva and is ready for swallowing.

Bowels: the intestines or part of the intestines i.e. large bowel.

Bulimia (hyperphagia): an unusually large and constant appetite. As a psychiatric eating disorder it is sometime called binge and purge syndrome.

Cholecystitis: inflammation of the gallbladder.

Cholelithiasis: presence of gallstones in the gallbladder or bile ducts.

Chyme: food that has been swallowed and has mixed with water and digestive enzymes and is passing through the small intestines. As the chyme exits the small intestines and is dehydrated by the large intestines it becomes feces.

Cirrhosis: a liver condition (disease) characterized by an increase in the amount of connective tissue.

Colitis: inflammation of the colon.

Colostomy: an open from the colon through the abdominal wall. The opening allows the contents of the colon to exit and by-pass a distal diseased or injured region.

Constipation: condition of difficult defecation caused by dry, hardened feces.

Diarrhea: increased frequency and fluidity of bowel movements.

Diverticulosis: a condition of sac-like (pockets) herniation of mucosa of the

colon.

Emesis: to vomiting.

Enteritis: inflammation of the small intestines.

Esophagitis: inflammation of the esophagus.

Gastritis: inflammation of the stomach.

Gastroenteritis: inflammation of both the stomach and the small intestines.

Gastroesophageal reflux disease (GERD): a condition in which a weak or damages lower esophageal sphincter allows the acidic contents of the stomach to reflux into the lower part of the esophagus which causes inflammation and damage to the mucosal lining.

Gastroscope: a lighted, flexible tube that can be inserted through the mouth to examine the esophagus, stomach and duodenum.

Gingiva: gums or mucosa of the mouth on the mandible and maxilla.

Hemorrhoids: an itching, painful mass of dilated veins either just inside the anal sphincter or protruding outside the anal sphincter. Hemorrhoids are a common cause of frank bleeding during defecation. The condition is associated with excessive straining during defecation.

Hepatitis: inflammation of the liver.

Jaundice: a yellow discoloration of the skin and the whites of the eyes caused by an accumulation of bile pigments in the blood. Often associated with liver disease such as hepatitis.

Laxative: a medicine or agent used to relieve constipation; also called a purgative.

Mumps: a viral infection of the parotid salivary gland. The second “M” in the MMR vaccine.

Pancreatitis: inflammation of the pancreas; usually caused by blockage of the pancreatic secretions or alcohol abuse.

Peptic ulcer: erosion (ulcer) of the mucosa of the esophagus, stomach or duodenum caused by stomach acid.

Periodontal disease: disease of the periodontal ligament which holds each tooth in the alveoli of the mandible and maxilla. The result is a loosening of the teeth in their sockets.

Purge: to remove or cleanse of something. The term is often used in association with eating disorders in which vomiting or laxatives are used to eliminate food consumed during a binge.

Steatorrhea: fat in the stools.

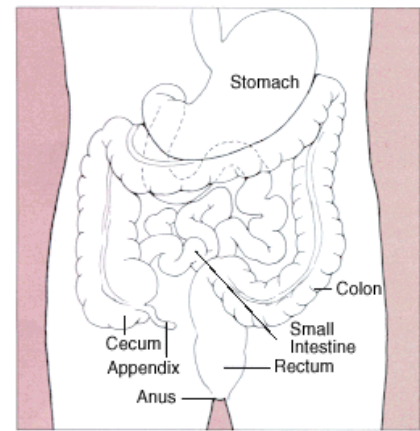
Stools: common term for feces.

Tarry stools: refers to the consistency of stools which contain blood from internal bleeding into the GI tract. The word tarry means sticky and black.

Reading

Appendicitis (or **epityphlitis**) is a condition **characterized** by inflammation of the appendix. While **mild** cases may **resolve** without treatment, most require removal of the inflamed appendix, either by laparotomy or laparoscopy. Untreated, mortality is high, mainly due to peritonitis and shock.

Obstruction of the appendiceal lumen has been **attributed** to a number of common **sources** including fecaliths (a hard mass of fecal matter), normal stool, viral induced ulcers, and lymphoid hyperplasia. Once this obstruction occurs the appendix **subsequently** becomes filled with mucus and distends, increasing intraluminal (within the lumen of the appendix) and intramural (across the wall of the appendix) pressures. As these progress, the appendix becomes ischemic and then necrotic. As the walls of the appendix began to **break down**, pus begins to **leak** out of the appendix (suppuration) and into the peritoneal cavity. The end result of this **cascade** is a **rupture** of the appendix causing peritonitis, which may lead to septicemia, a potentially life threatening condition.



The typical history includes pain starting centrally (periumbilical) before **localizing** to the right iliac fossa, an area called McBurney's Point (in the lower right **quadrant** of the abdomen). The pain is usually associated with loss of appetite and fever. **Nausea** or **vomiting** may or may not occur. The abdominal wall becomes very sensitive to gentle pressure (palpation) and tapping (percussion). Coughing causes point **tenderness** in the area of McBurney's Point and this is the least painful way to localize the inflamed appendix. If the abdomen, on palpation, is also involuntarily **guarded** (rigid), there should be a strong suspicion of peritonitis requiring urgent surgical intervention.

Treatment begins by keeping the patient from eating or drinking anything (**NPO**), in preparation for surgery. Hydration can be supplied through an intravenous drip. Antibiotics such as cefuroxime and metronidazole may be **administered**, by IV, early to help kill bacteria and reduce the spread of infection in the abdomen and minimize postoperative complications in the abdomen or incision. The surgical procedure for the removal of the appendix is called either an appendicectomy or an appendectomy.

Check point – Vocabulary

Instructions: work with a partner to match the terms from the preceding text (column A) with their contextual meanings in column B.

A	B
1. Characterized	A. A sequence of events that are hard to stop
2. Mild	B. Blamed on
3. Resolve	C. Causes
4. Attributed	D. Disintegrate
5. Sources	E. Distinguished / differentiated
6. Subsequently	F. Emesis
7. Break down	G. Next / latter
8. Leak	H. Nothing by mouth
9. Cascade	I. One-fourth of an area
10. Rupture	J. Protected
11. Localizing	K. Queasiness / upset stomach
12. Quadrant	L. Sensitive
13. Nausea	M. Slight / minor
14. Vomiting	N. To be confined / to be focused
15. Tenderness	O. To break open / to burst / perforate
16. Guarded	P. To get better / to clear up
17. NPO	Q. To give a medication
18. Administered	R. To spill slowly / escape / seep out of

Check point – Talking about an appendicitis.

Instructions: work with a partner to complete the sentences using the words in the box.

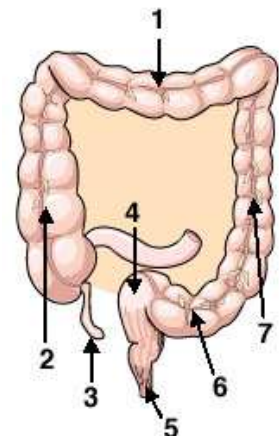
uneventful / acute / overnight / localized / procedure / shift / transition / proceed / recovery / diagnosis / sharper / emanate / present / constipation / radiate stays / defined

1. The first symptoms of an appendicitis are usually vague and not well _____.
2. As time passes, the symptoms of an appendicitis become more _____ and better _____.
3. The pain of an appendicitis begins to _____ to the lower right quadrant of the abdomen.
4. The _____ from a vague, poorly define pain to a well defined point of tenderness can _____ in a matter of hours.
5. As the pain become more localized it become _____ and more intense.
6. Because of the neural net supplying the abdomen, the pain may appear to _____ or even _____ from various locations around the abdomen. This feature can sometimes make a _____ more difficult.
7. In addition to tenderness in the lower right quadrant, a patient with an appendicitis can _____ with many other symptoms as well; these include fever, nausea, vomiting, poor appetite, and _____.
8. The _____ to treat an appendicitis is generally _____ and takes about 15 minutes.
9. Hospital _____ following an appendectomy are usually short, either _____ or one additional day.
10. Depending on the procedure used, _____ is rapid, usually less than 3 weeks.

Check Point – Anatomy

Instructions: work with a partner and provide the English names for the numbered items in the diagram.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____



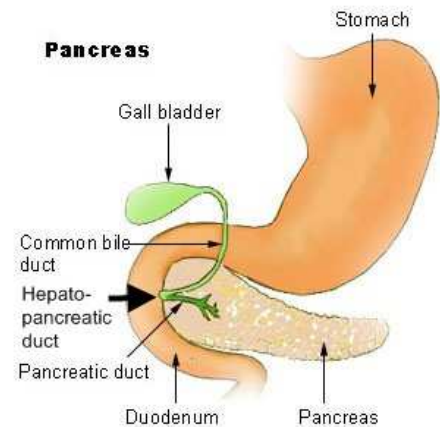
Check point – Articles

Instructions: work with a partner and fill in each of the blanks with “a” / “an” / “the” or “NA.” NA means that No Article is required at that location.

Pancreatitis

Globally, _____ most common cause of acute pancreatitis is _____ gallstones, with excessive alcohol use often cited as _____ second most common cause. Gallstones coming down _____ common bile duct from _____ gallbladder can lodge in _____ hepatopancreatic duct. _____

hepatopancreatic duct is where _____ common bile duct and _____ pancreatic duct come together and enter _____ duodenum. When _____ duct is blocked, it prevents _____ pancreatic digestive enzymes and pancreatic bicarbonate, which neutralizes _____ acid chyme coming from _____ stomach, from exiting _____ pancreas and entering _____ small intestines.



Once blocked, _____ enzymes begin to digest _____ pancreatic tissues. It is worth noting that pancreatic cancer is seldom _____ cause of pancreatitis. If _____ acute pancreatitis is caused by alcohol consumption, _____ pancreatitis may clear up on its own. Depending on how much damage has been done to _____ pancreas, drugs can be used to limit pancreatic production of _____ enzymes while _____ pancreas heals. In more severe cases, _____ patient may need total parenteral nutrition for 3 to 6 weeks. This prevents _____ need for _____ pancreas to function in order to digest _____ food consumed by _____ patient.

Severe upper abdominal pain, with radiation through to _____ back, is _____ hallmark of _____ pancreatitis. Nausea and vomiting are prominent symptoms. Findings on _____ physical exam will vary according to _____ severity of _____ pancreatitis attack, and whether or not it is associated with significant internal bleeding. _____ blood pressure may be high (when pain is prominent) or low (if internal bleeding or dehydration has occurred). Typically, both _____ heart and respiratory rates are elevated. Abdominal tenderness is usually found but may be less severe than expected given _____ patient's degree of abdominal pain. Bowel sounds may be reduced as _____ reflection of _____ reflex bowel paralysis (i.e. ileus) that may accompany any abdominal catastrophe.

Extra for Experts: Part 1 -- Distal and Proximal

Instructions: work with a partner. Take turns reading the statements aloud and getting your partner to repeat the statement back with the correct word inserted in the blank. Notice the use of the preposition “to” and the article “the” in the statements.

Proximal or Distal
1. The esophagus is _____ to the oropharynx.
2. The cecum is _____ to the ileum.
3. The ascending colon is _____ to the transverse colon.
4. The stomach is _____ to the duodenum.
5. The anus is _____ to the rectum.
6. The jejunum is _____ to the ileum.
7. The descending colon is _____ to the sigmoid colon.
8. The large intestines are _____ to the small intestines.
9. The duodenum is _____ to the esophagus.
10. The oral cavity is _____ to the oropharynx.

Extra for Experts: Part 2 – Relational terms.

Instructions: work with a partner and take turns forming relational statements using any of the relational terms listed in column B and the paired structures listed in column A. One person should form a relational statement and the other person should form the opposite.

Example: (radius / carpals)

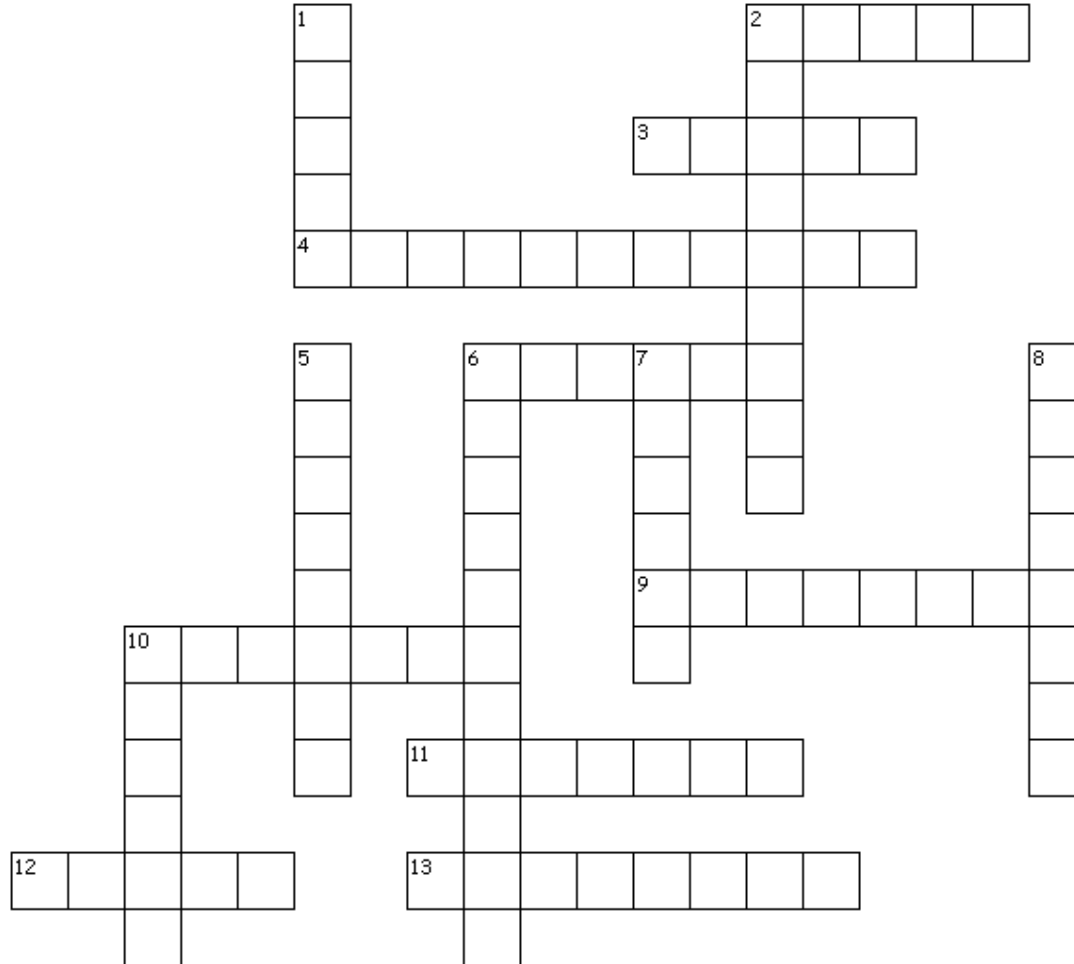
A: The radius is PROXIMAL to the carpals.

B: The carpals are DISTAL to the radius.

A	B
liver / gallbladder	proximal / distal
transverse colon / stomach	superior / inferior
spleen / liver	ipsilateral / contralateral
stomach / pancreas	medial / lateral
hepatic duct / common bile duct	anterior / posterior
urethra / urinary bladder	
heart / lungs	
trachea / esophagus	
nasal cavity / oral cavity	
larynx / trachea (remember airflow is bidirectional)	

Cross Word Puzzle

Instructions: work with a partner to complete the cross word puzzle.



Across	Down
2. a watery mixture of food and digestive enzymes	1. a viral infection of the salivary glands
3. a word used to describe stools containing old blood from a bleeding source high in the bowels	2. a liver condition often associated with excessive alcohol consumption
4. fatty stools	5. a yellowing of the skin that can be caused by liver dysfunction
6. to vomit	6. inflammation of the esophagus
9. to chemical taken to relieve constipation	7. another term for feces
10. an eating disorder characterized by binge eating followed by purging	8. a disorder where the person has an alter sense of body image and a preoccupation with dieting
11. also called the gums	10. a common name used to describe both the small and large intestines
12. a mixture of food and saliva that is swallowed into the stomach	
13. a condition which develops when the amount of water in the digestive tract exceeds that which can be reabsorbed by the large intestines	

Talking with the Patient

Instructions: work with a partner. One person can read the part of the doctor and the other person can read the part of the patient.

1. D: Good morning Mr. Smith
2. P: Good morning doctor.
3. D: What bring you in today?
4. P: I've got bad diarrhea and vomiting.
5. D: Yeah, well if you need to run – you know where the toilet is – right?
6. P: Yes – very well.
7. D: Well, let me get some more information from you.
8. P: Okay.
9. D: Are you running a fever?
10. P: I think so.
11. D: Well – let's check it.

12. D: You're right – you do have a mild fever.
13. P: I sure feel like it.
14. D: For starter, describe the consistency of your bowel movements. Are they formed, semi-formed, semi-liquid or liquid?
15. P: Liquid.
16. D: How about the frequency – how often do you have a bowel movement?
17. P: It seems like about every 20 – 30 minutes.
18. D: Even at night?
19. P: Yes – even during the night.
20. D: When did this start?
21. P: Three days ago.
22. D: Have you noticed any blood in your stools.
23. P: No, it just looks like brown water.
24. D: About any fat or mucus.
25. P: No.
26. D: Is the odor particularly noticeable?
27. P: Not really.
28. D: Did the condition come on suddenly or did your bowels movements change over a period of time?
29. P: It came on very suddenly.
30. D: Did it start with cramping?
31. P: Yes – unbelievable cramping.
32. D: Has the cramping continued?
33. P: Yes – it usually precedes a bowel movement by about 5 minutes.
34. D: And the bowel movements themselves – does the diarrhea exit smoothly or forcefully?
35. P: They exit like a fire hose – if you'll excuse the analogy.
36. D: I understand.
37. P: Uh, -- back in a minute doc.

38. D: Feeling better?
39. P: A little.
40. D: Are you still eating and drinking?
41. P: My appetite is off, but I still drink some.
42. D: Are you taking any prescription medicines – in particular – any antibiotics?
43. P: No.
44. D: No antibiotics and no prescriptions medicine?
45. P: That's right.
46. D: Have you taken any over-the-counter laxatives?
47. P: No.
48. D: Have you taken any anti-diarrheal medicine?
49. P: No, but I'm hoping you'll give me some.
50. D: Have you traveled out the country in the past month?
51. P: No.
52. D: Have you had any recent illness – a cold or flu or anything like that?
53. P: No.
54. D: Have you had any other recent problems with you GI tract – constipation, nausea or diarrhea?
55. P: No, I have been pretty healthy.
56. D: Can you describe the last meal you had before the diarrhea started?
57. P: I ate at home that day. I had cereal for breakfast, canned beans and franks on toast for lunch and a microwave TV dinner for dinner.
58. D: Well that pretty much rules out gastroenteritis caused by a Staph or Clostridium species.
59. P: Is that good or bad?
60. D: Neither – what about the day before, do you remember what you had to eat then?
61. P: I always have cereal for breakfast. I skipped lunch because I went to a friend's house for bar-b-que.

62. D: What did you eat there?
63. P: I had, nachos, some fresh vegetables and for dinner I had chicken and cole slaw.
64. D: Well I'm thinking it was something you ate there, and it is starting to sound like salmonellosis.
65. P: I've heard of that – you get it from eating chicken – right?
66. D: That's a common source.
67. P: Is it easy to treat?
68. D: Well, I need to be sure. Hang on a second while I call the nurse.
69. P: Sure.
-
70. D: I asked the nurse to set up a sample collection unit in the toilet. You'll see it when you go in there – it is sealed with tape and the tape has your name on it. Just break the tape and use that. We can then send the sample to the lab for confirmation.
71. P: Okay.
72. D: Now back to your question – is it easy to treat? I have good news and bad news.
73. P: The good news first please.
74. D: Salmonellosis usually runs its course in less than 7 days. So you are half way through.
75. P: And the bad news?
76. D: We don't usually do anything to treat it. The diarrhea is important in flushing the organism from your bowels. If I give you something to stop the diarrhea you risk the infection becoming systemic.
77. P: So three more days of this?
78. D: I am going to give you something for the vomiting and the fever. Once the fever is down, the vomiting is controlled and we get you rehydrated you should feel much better and the diarrhea should begin to improve steadily on its own.
79. P: *unhappy silence*
80. D: I'm also going to prescribe an oral rehydration fluid.
81. P: What's that?
82. D: It's something like Gator Aid – but with additional vitamins, nutrients and electrolytes. The main risk associated with your condition is dehydration. However, you are young and with rehydration treatment you should have no problems. Your condition would be more complicated with you were over 60 or under 10.
83. P: Won't it just go straight through me?
84. D: Yes – so you must keep drinking it. It comes in packages – each package makes a liter. I want you to drink at least 2 liters per day, starting today.
85. P: Okay, uh doc!
86. D: Remember we need a sample.
87. P: Okay.
-
88. P: I hope you wanted a big sample.
89. D: Well – anyway here is your prescription.
90. D: I'm giving you Tylenol for your fever and promethazine for the vomiting. You can take the promethazine every 4 to 6 hours as needed for the nausea and vomiting. I'm going to give you 7 days worth which should be more than enough. Also different people have very different responses to promethazine. If it makes you feel a little sleepy that is normal – but if you experience any dizziness, anxiety, or confusion -- call and I'll switch you to a different drug.
91. P: Okay thanks.
92. D: I also want you to stop by the nurse's station on your way out. I want a blood sample for the lab as well.
93. P: Okay.
94. D: As I said, you're half way through this so you should see improvement in the symptoms over the next few days – if there is no improvement or if the symptoms get worse you need to call me right away.
95. P: Okay – Oh when can I start eating?
96. D: It depends on the nausea – but your food should be bland – cereal, crackers, fruit should be fine. In three days you should feel like eating again – but I would keep the foods simple and easy to digest until your digestive tract has fully recovered – and that might take an additional week.
97. P: Okay thanks.
98. D: Call if you need to.
99. P: I will – do I need a follow-up appointment.
100. D: No, not if you are improving and are feeling fine in 3-4 days. If the lab reports come back different than I expect I will call you and ask you to come in again. I'll have my nurse call you and let you know what the lab report indicates.
101. P: Okay – great.

102. D: Bye.

103. P: Bye.

Talking with the Patient

Instructions: working with a partner, try to recreate the interview. Don't just reread it – try to recreate the interview using your own question and answer variations while using the same basic case profile.

Instructions: Review the interview and find line numbers that correspond to the interview elements listed below. In some cases different aspects of the same interview element may be addressed in different parts of the interview. The elements in the table below are not in the sequence of the interview.

Interview element	Line numbers
Patient greeting.	
Request for information on patients chief complaint	
Request for information on patients current and recent health	
Request for information about medications being taken by patient	
Explaining how to take a prescribed medication	
Request for information regarding recent food intake	
Explaining the treatment plan	
Providing an initial diagnosis	
Explaining what additional tests will be used to confirm the diagnosis	
Request for diarrhea sample	
Offering a prognosis	
Recommendations for patient hydration	
Explain possible side effects of a drug	
Explaining how lab results will be communicated	
Request for information regarding defecation habits and frequency	
Concluding the visit	
Providing information about follow-up visit	
Request for blood sample	
Explaining the recovery process	
Explaining the non-treatment of the patient's CC	

Check Point – Comprehension

Instructions: Work with a partner and take turns asking the following questions. When answering, practice giving full answers, not short cryptic answers – don't limit your use of language.

1. What is the patient's chief complaint?
2. Based on the interview, what is the minimum and maximum age you would predict for this patient? What is the rationale for your conclusion?
3. Is this patient seeing any other doctors for health issues?
4. How long has the patient been experiencing the chief complaint?
5. What symptoms does the patient include as part of the description of their CC?
6. What is the initial diagnosis? What leads the doctor to this diagnosis?
7. Why is the doctor interested in the patient's previous travels?
8. Why does the doctor rule out the foods eaten on the day the CC started as the source of the problem?
9. Describe the medications included in the treatment plan. What is the purpose of each?
10. Why is the doctor concerned about the patient's hydration status?

Practice Dialog

Instructions: Work with a partner to complete the two scenarios. After completing the first scenario, switch roles and complete the second scenario.

Scenario A:

Doctor -- Initiate a phone conversation with the patient. (1) explain that the lab results do not indicate a bacterial cause for the diarrhea (2) tell the patient that you are going to add Flagyl to their medications (3) explain that the new medication should be taken PO, tid x 7 days, (4) reiterate the prognosis (5) tell the patient to call if the prognosis does not evolve as expected, (6) reiterate the need extra water intake, (7) ask the patient to tell you back how they should take the new drug to confirm that they understand, (8) ask if the patients has questions, (9) conclude the conversation.

Patient – Ask relevant and realistic questions in response to the information the doctor provides.

Scenario B:

Doctor – Initiate a phone conversation with the patient. (1) explain that the lab results confirmed salmonellosis, (2) explain that the feces sample had blood in it, (3) reassure the patient that this is not a serious complication and the overall prognosis is still fine, however, you are concerned that the infection might enter or already have entered their blood, (4) explain that you are going admit them to the hospital so that they can receive IV ampicillin and their progress more carefully monitored, (5) explain that this medication must be administered IV for 3 days, (6) answer any patient questions, (7) explain that you have already contacted the hospital and made arrangements for them, (8) tell patient you will visit them in the hospital that evening, (9) conclude conversation.

Patient – Ask relevant and realistic questions in response to the information the doctor provides.

Talking with the Patient

Instructions: Work with a partner. One person should play the role of the doctor while the other plays the role of the patient. The doctor should practice asking clear, concise questions to get information about the outlined items. Once finished, switch roles and repeat. The patient needs to provide realistic information – the patient can pretend to have one of the following: (1) GERD or (2) food allergies causing: diarrhea, gas, bloating and cramping.

- 1) Introductions
 - a) Give your name and get the patient's name, address, age, etc.
 - b) Ask an "open-ended" question about the patient's CC.
 - i) What problem brought you in today?
 - ii) How can I help you today?
- 2) History of CC.
 - a) Weight change
 - i) How much
 - ii) Over what time period
 - b) Energy levels or lethargy
 - c) Signs of anemia
 - i) Pale skin
 - ii) Rapid heart rate
 - iii) Short of breath
 - iv) Poor capillary refill
 - v) Pale oral mucosa
 - d) Dysphagia
 - i) Liquids / solids / both
 - ii) Pain in chest on swallowing
 - iii) Choking
 - e) Dyspepsia
 - i) Reflux
 - ii) Abdominal pain
 - (1) Location
 - (2) Onset
 - (3) Relieving / aggravating conditions
 - (4) Duration after onset
 - (5) Radiation
 - f) Nausea and/or vomiting
 - i) Frequency
 - ii) Quantity

- iii) Appearance
 - (1) Blood
- g) Abdominal pain
 - i) Nature of the pain
 - (1) Episodes
 - (2) Steady
 - ii) Location of pain
 - (1) Well localized
 - (2) Poorly localized
 - iii) Duration
 - iv) Radiation
 - v) Onset
 - vi) Relieving / aggravating factors
 - vii) Abdominal referred pain locations
 - (1) Shoulder region
 - (2) Scapular region
 - (3) Flank pain
 - (4) Lower back pain
- h) Swollen abdomen
 - i) Duration
 - ii) Onset
- i) Diarrhea
 - i) Frequency
 - ii) Fluidity
 - iii) Appearance
 - iv) Volume
 - v) Onset
 - vi) Duration
 - vii) Pain
- j) Bleeding from rectum
 - i) Nature
 - ii) Quantity
- k) Stools
 - i) Appearance
 - ii) Consistency
- l) Defecation
 - i) Level of difficulty

- ii) Frequency
- 3) Past medical history
 - a) Surgical procedures associated with the digestive system
 - b) Ulcers
 - c) History of diarrhea or constipation
- 4) Drug history (drug and dosage)
 - a) OTC drugs
 - i) Laxatives
 - b) Prescription drugs
 - c) Drug allergies
- 5) Family history
 - a) Colon cancer
 - b) Other colon conditions
- 6) Lifestyle history
 - a) Smoking
 - i) Quantify
 - b) Drinking
 - i) Quantify
 - c) Diet
 - i) Specify
 - d) Occupation
 - i) Any connection to CC
 - ii) Level or stress

Self Test

1. To force emesis after eating is to:
 - a. Binge
 - b. Purge
 - c. Belch
 - d. Have a bowel movement
2. Tarry stools are an indication of:
 - a. Too much fat in the diet
 - b. Fat malabsorption
 - c. Intestinal bleeding
 - d. Cirrhosis
3. Peptic ulcers are NOT found in the:
 - a. Stomach
 - b. Cecum
 - c. Esophagus
 - d. Duodenum
4. Anorexia means:
 - a. Overeating
 - b. Fat in the stools
 - c. Mucus in the stools
 - d. Lack of appetite
5. Promethazine is used to treat:
 - a. Diarrhea
 - b. Constipation
 - c. Vomiting and nausea
 - d. Hepatitis
6. Pancreatitis is usually caused by pancreatic cancer.
 - a. True
 - b. False
7. McBurney's Point is an anatomical landmark for:
 - a. The lower esophageal sphincter
 - b. The sigmoid colon
 - c. The appendix
 - d. The pancreas
8. Which of the following is not part of the normal treatment for Salmonellosis?
 - a. Antipyretics
 - b. Antiemetics
 - c. Antitussives
 - d. Rehydration supplements
9. The transverse colon is:
 - a. Proximal to the descending colon
 - b. Distal to the ascending colon
 - c. Proximal to the sigmoid
 - d. All the above
10. The gums are found in the:
 - a. Nasal cavity
 - b. Oral cavity
 - c. Pharynx
 - d. Larynx

Suggested Mini-Lectures

The mini-lectures listed below can be used as topics for instructors to add additional information to this unit or the topics can be assigned to students for classroom presentations.

- ⇒ Further discussion of the anatomy of the digestive system
 - Regions of the small intestines
 - Regions of the large intestines
- ⇒ Further discussion of the anatomy of the digestive mucosa
 - Layers
- ⇒ Discussion of GI tract diseases and conditions
 - Hepatitis
 - Irritable bowel syndrome
 - Ulcers
 - Colon cancer
- ⇒ Discussion of the function of accessory digestive organs
 - Liver
 - Gallbladder
 - Pancreas