

# Digestive System Case Study

## Isabel's Case: The Burn in My Chest

Isabel is a young Latina woman, age 24, who loves to cook. Her mom taught her many of the traditional spicy Hispanic dishes her family ate while growing up. Recently Isabel got married and moved into a new home with her husband. Isabel enjoys cooking so much that she does it almost every night. But lately, the food just hasn't seemed to agree with her.

### GOALS:

1. Identify **subjective** and **objective** data in a complex scenario.
2. Determine an evidence-based diagnosis and **assessment**.
3. Create an aligned, thoughtful, and evidence-based **plan**.

### ROLE:

You are Isabel's team of health care professionals at the clinic where her family doctor practices.

### OBJECTIVE:

**Obj. 14.7:** Identify the structures, functions, and pathophysiology of the digestive system.

### DELIVERABLE:

- 1) SOAP Note
- 2) Post-Assessment Questions
- 3) Disease Education Intervention

### ASSESSMENT CRITERIA:

**Subjective & Objective Sections:** 1) organized & recorded clearly & accurately; 2) summarized clearly; 3) information is aligned with appropriate section and question

**Assessment & Plan Sections:** 1) evidence-based final diagnosis; 2) plan is comprehensive (includes physical, social & mental health) & aligned to facts of the case

**Health Education Intervention:** clear, professional, engaging, & accessible

### Case Study Steps:

- \_\_\_\_\_ 1. Review the coversheet information. Assign team roles.
- \_\_\_\_\_ 2.. Read the case information and patient interview and fill out the SOAP note.
- \_\_\_\_\_ 3. Research possible conditions or diseases.
- \_\_\_\_\_ 4. Determine additional questions and/or lab/tests to gather objective data.
- \_\_\_\_\_ 5. Complete the Assessment and Plan for the patient.
- \_\_\_\_\_ 6. Complete the *Post-Assessment Questions*.
- \_\_\_\_\_ 7. Create a population-based patient education intervention to educate more patients about the illness affecting Isabel.

### Health Care Provider Roles:

Determine a role for each team member. Then identify at least one area or issue that each team member will focus on, in relation to this particular case scenario. For example, if one team member is a medical assistant, he or she might be in charge of assessing vital signs to help assess the patients' vital functions.

Team Member	Role	Areas of Expertise

### Case Introduction:

Isabel, a 24-year-old Latina, was recently married and started doing lots of home cooking. At her annual gynecological exam, she asks her women's health physician if she can refer her to a physician specializing in "stomach or heart problems." Apparently, Isabel has been feeling a pain in her chest or upper abdomen nearly every evening, especially right before bed or right when she lies down. Her husband tells her it must be heartburn, but truthfully Isabel did not understand what heartburn really meant until she googled it. Now she is starting to suspect that maybe her diet is involved.

Read the follow excerpt from the patient interview:

**Doctor:** So tell me more about this pain you mentioned.

**Isabel:** Well the pain in my chest is happening most nights around 9 or 10pm. We usually eat dinner late--around 8pm because it takes awhile to cook after we get home from work.

**Doctor:** Do you have any food or other allergies you know about?

**Isabel:** No

**Doctor:** How about medications. You said you aren't currently taking any? Did you recently start or stop any?

**Isabel:** No

**Doctor:** Does anyone you know have this problem?

**Isabel:** My mom always used to complain about "the burn in her chest" after our spicier meals, but I thought she was being dramatic. Now I think I know what she meant.

**Doctor:** Do you have any history of other medical conditions in your family?

**Isabel:** My dad died of a heart attack when I was 14. My grandparents all passed from different types of cancer. My mom is pretty healthy.

*(continues on next page)*

**Doctor:** What have you eaten so far today? (It is 11am)

**Isabel:** A chorizo & pepper omelet that my husband made for me. That's the one I think he does love to cook--omelets!

**Doctor:** Ok, let's get back to the chest pain. When did you first start noticing this problem.

**Isabel:** About six weeks ago

**Doctor:** And how often does it happen?

**Isabel:** Every night. The only time I don't get it at night is if I eat something really bland for dinner, like a sandwich.

**Doctor:** Do you have any other symptoms or issues besides the chest pain?

**Isabel:** Well, I've noticed more of a dry cough lately and my throat keeps getting sore on and off. I also have this constant bad breath--my husband made a comment the other day, so I've been brushing my teeth and chewing on gum more lately.

**Doctor:** Does your pain in your chest extend anywhere beyond your chest region--for example, to your neck, shoulders, arms, etc.?

**Isabel:** No

**Doctor:** And how would you describe the pain?

**Isabel:** Sort of like a burning/stabbing sensation.

**Doctor:** On a scale from 1-10 with 10 being the worst pain you've ever felt, where would you rank the pain you feel on an average night?

**Isabel:** Anywhere between a 4 and a 6, I guess.

**Doctor:** And once it starts each night, how long does it usually last?

**Isabel:** About 30 minutes to an hour, but sometimes longer.

**Doctor:** Is there anything that you've noticed makes it worse?

**Isabel:** Generally when I eat a lot or it's really spicy, it's worse than usual.

**Doctor:** Is there anything you've tried that makes it better?

**Isabel:** I've tried Tums but they don't really help much. If I keep standing or sitting, it's better than laying down.

**SOAP Note**

<b>Subjective:</b>	
Signs & Symptoms	
Allergies	
Medications	
Past medical history	
Last oral intake	
Events leading to injury or illness	
Frequency	
Associated Symptoms	
Radiation	
Character	
Onset	
Location	
Duration	
Exacerbating Factors	
Relieving Factors	

**Objective:**

Measurements	
Vital Signs	
Exam Results	
Lab Results	

Research:

Team Member	Research Focus	Notes from Team Member

**Assessment:**

<b>Summary</b>	
<b>Differential Diagnoses</b>	
<b>Final Diagnosis</b>	<p><i>Claim (Diagnosis):</i></p> <p><i>Evidence:</i></p> <p><i>Reasoning:</i></p>

**Plan:**

<p><b>Steps of Plan</b></p> <p><i>(Consider mental, social and physical health; short- and long-term needs, and follow-up care required)</i></p>	
--	--

*Post-Assessment Questions:*

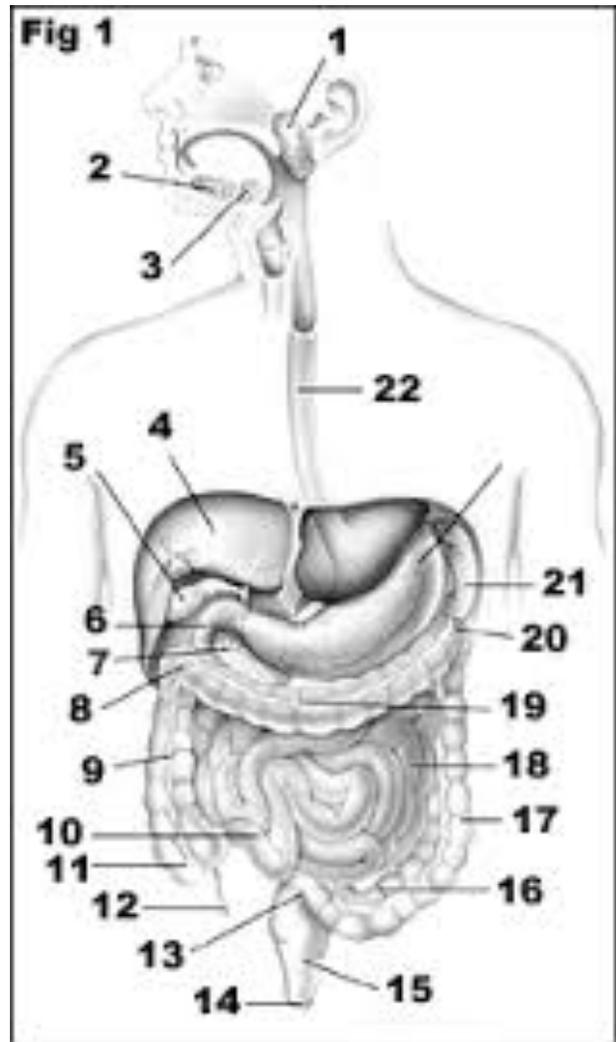
1. What are the main functions of the digestive system? Are any of these functions impaired by Isabel's condition?

2. Label the digestive system and identify which anatomical regions are problematic for Isabel?

3. Explain Isabel's condition. What is happening anatomically?

4. Suppose Isabel's problem was different. Instead of chest pain, she was having severe bouts of diarrhea. Explain what happens in the digestive system when diarrhea occurs.

5. Suppose Isabel's problem was different (again!). Instead of chest pain or diarrhea, she was having problems with constipation. Explain what happens in the digestive system when constipation occurs.



## Health Education Intervention

Create a health education intervention that informs and helps patients prevent the disease or illness you diagnosed Isabel with. Think of all the ways that health information can be communicated--the Internet, brochures/literature in the doctor's waiting room, posters/signs, public service announcements, materials health professionals can use during the patient visit...and the list could go on!

Think about what information would be important to communicate and the most effective way to get the information across. Plan, design, and present your educational intervention to the class!

*Brainstorming & Planning Space:*