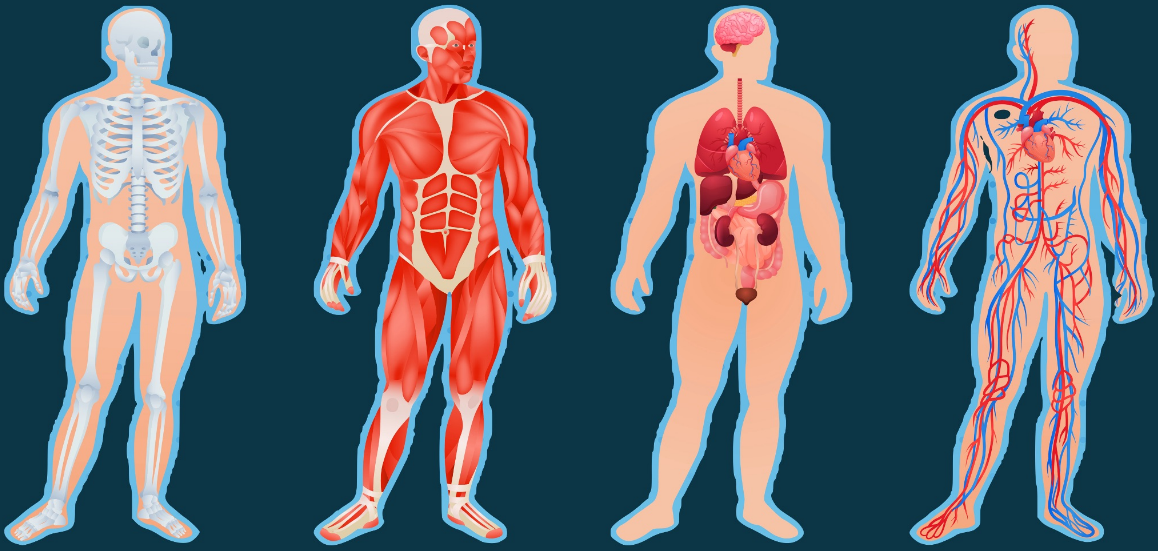
ANATOMY BODY SYSTEMS

CASE STUDY BUNDLE



11 Medical Case Studies

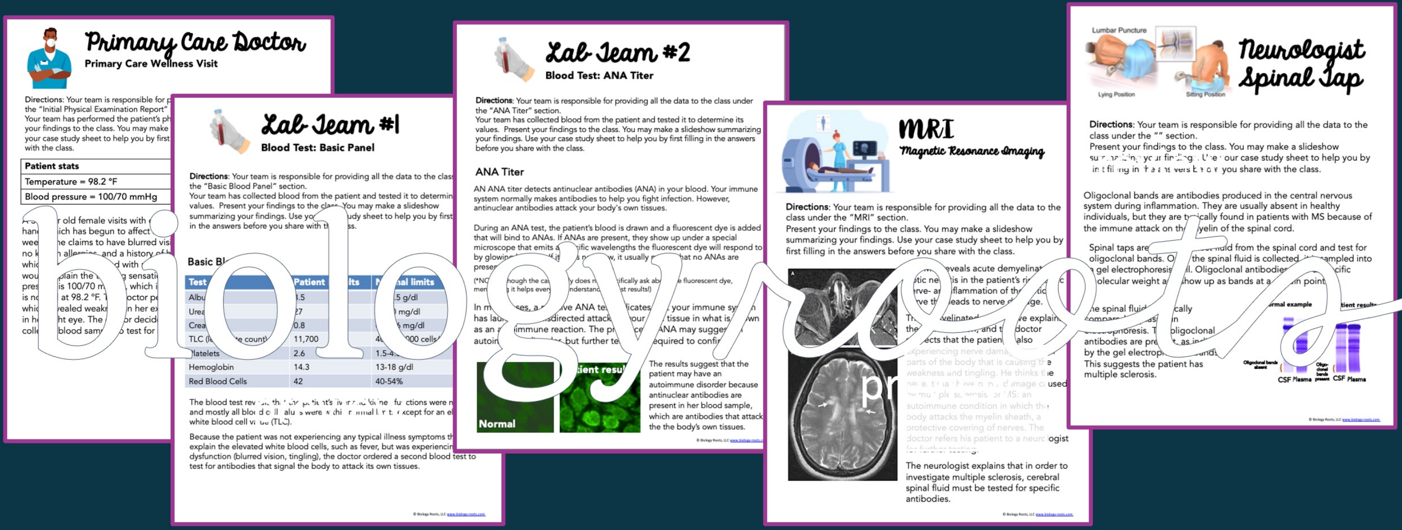
Differentiated versions

- Use the TEAMS version to make it an interactive class experience! Perfect for class support or just for fun!

Doctor or Lab Team

Teacher Directions *Alternate version*

To make this case study more engaging, you can have students form "teams" to complete this case study as a class. Each doctor or lab team present their findings. Please note that this may take longer than the other version of the case study, where all the information is available right on the paper, and students work in partners independently without class presentations.



Primary Care Doctor

Primary Care Wellness Visit

Patient stats
Temperature = 98.2 °F
Blood pressure = 100/70 mmHg

Lab Team #1

Blood Test: Basic Panel

Test	Patient	Normal limits
Hemoglobin	14.3	13-18 g/dl
Red Blood Cells	42	40-54%

Because the patient was not experiencing any typical illness symptoms th… explain the elevated white blood cells, such as fever, but was experiencin… dysfunction (blurred vision, tingling), the doctor ordered a second blood test to test for antibodies that signal the body to attack its own tissues.

Lab Team #2

Blood Test: ANA Titer

Directions: Your team is responsible for providing all the data to the class under the "ANA Titer" section.
Your team has collected blood from the patient and tested it to determine its values. Present your findings to the class. You may make a slideshow summarizing your findings. Use your case study sheet to help you by first filling in the answers before you share with the class.

ANA Titer

AN ANA titer detects antinuclear antibodies (ANA) in your blood. Your immune system normally makes antibodies to help you fight infection. However, antinuclear antibodies attack your body's own tissues.

The results suggest that the patient may have an autoimmune disorder because antinuclear antibodies are present in her blood sample, which are antibodies that attack the the body's own tissues.

MRI

Magnetic Resonance Imaging

Directions: Your team is responsible for providing all the data to the class under the "MRI" section.
Present your findings to the class. You may make a slideshow summarizing your findings. Use your case study sheet to help you by first filling in the answers before you share with the class.

The neurologist explains that in order to investigate multiple sclerosis, cerebral spinal fluid must be tested for specific antibodies.

Neurologist Spinal Tap

Directions: Your team is responsible for providing all the data to the class under the "" section.
Present your findings to the class. You may make a slideshow summarizing your findings. Use your case study sheet to help you by first filling in the answers before you share with the class.

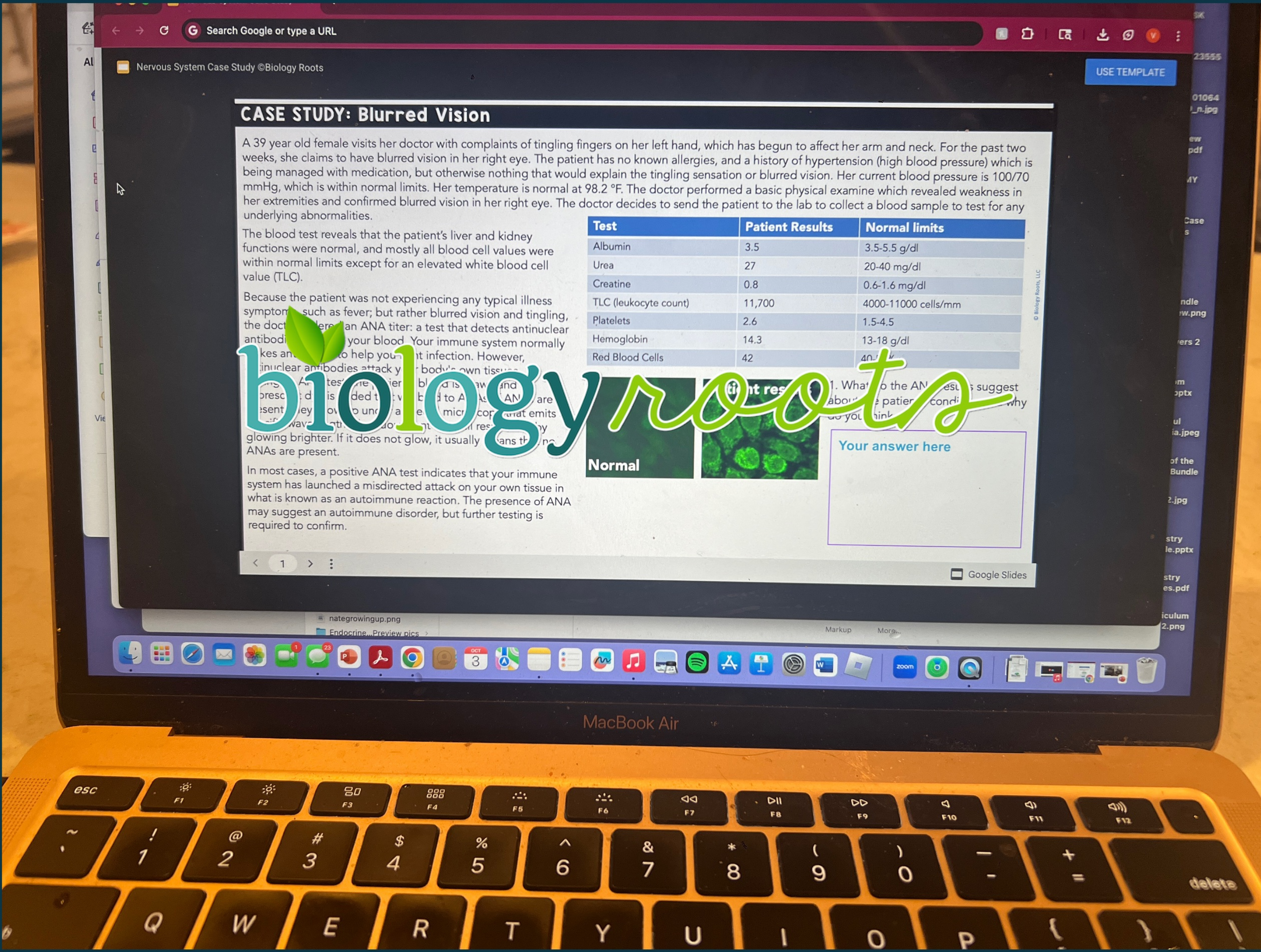
Oligoclonal bands are antibodies produced in the central nervous system during inflammation. They are usually absent in healthy individuals, but they are typically found in patients with MS because of the immune attack on the myelin of the spinal cord.

This suggests the patient has multiple sclerosis.

© Biology Roots, LLC www.biology-roots.com

biologyroots

Digital version of case studies included


Search Google or type a URL
Nervous System Case Study ©Biology Roots
USE TEMPLATE
biology roots
Normal
[illegible]tient res[illegible]
© Biology Roots, LLC
Google Slides
MacBook Air

CASE STUDY: Blurred Vision

A 39 year old female visits her doctor with complaints of tingling fingers on her left hand, which has begun to affect her arm and neck. For the past two weeks, she claims to have blurred vision in her right eye. The patient has no known allergies, and a history of hypertension (high blood pressure) which is being managed with medication, but otherwise nothing that would explain the tingling sensation or blurred vision. Her current blood pressure is 100/70 mmHg, which is within normal limits. Her temperature is normal at 98.2 °F. The doctor performed a basic physical examine which revealed weakness in her extremities and confirmed blurred vision in her right eye. The doctor decides to send the patient to the lab to collect a blood sample to test for any underlying abnormalities.

The blood test reveals that the patient's liver and kidney functions were normal, and mostly all blood cell values were within normal limits except for an elevated white blood cell value (TLC).

Because the patient was not experiencing any typical illness symptom[illegible] such as fever; but rather blurred vision and tingling, the doct[illegible] an ANA titer: a test that detects antinuclear antibodi[illegible] your blood. Your immune system normally [illegible]kes an[illegible] to help you[illegible]t infection. However, [illegible]inuclear antibodies attack y[illegible] body's own tiss[illegible] [illegible] glowing brighter. If it does not glow, it usually [illegible]ans th[illegible] ANAs are present.

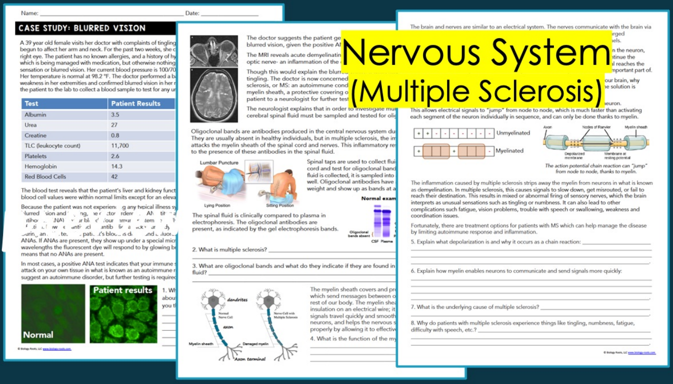
In most cases, a positive ANA test indicates that your immune system has launched a misdirected attack on your own tissue in what is known as an autoimmune reaction. The presence of ANA may suggest an autoimmune disorder, but further testing is required to confirm.

Test	Patient Results	Normal limits
Albumin	3.5	3.5-5.5 g/dl
Urea	27	20-40 mg/dl
Creatine	0.8	0.6-1.6 mg/dl
TLC (leukocyte count)	11,700	4000-11000 cells/mm
Platelets	2.6	1.5-4.5
Hemoglobin	14.3	13-18 g/dl
Red Blood Cells	42	40-[illegible]

1. What [illegible] the AN[illegible] suggest abo[illegible] patien[illegible] condi[illegible] why [illegible] you think[illegible]

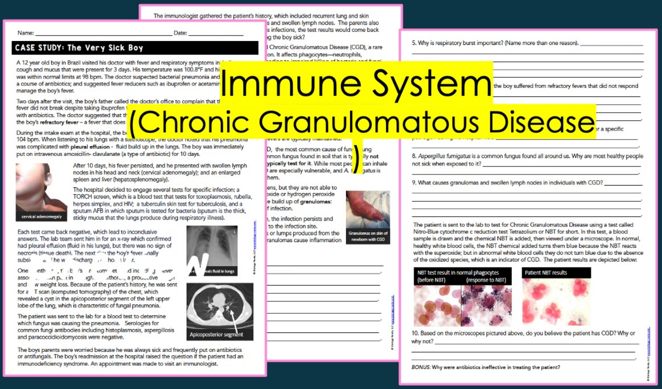
Your answer here

Hosted on Google Slides



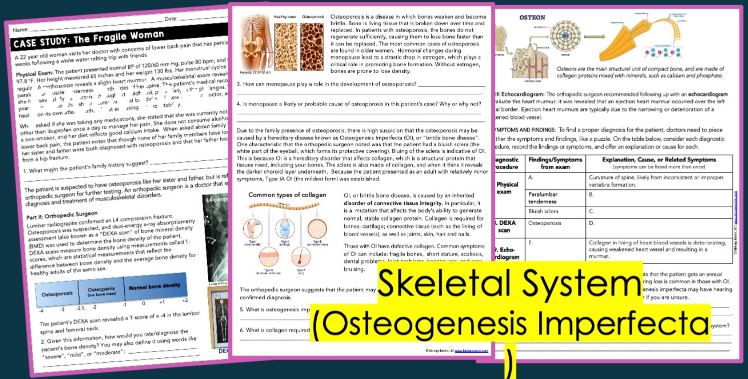
CASE STUDY: BLURRED VISION

Nervous System (Multiple Sclerosis)



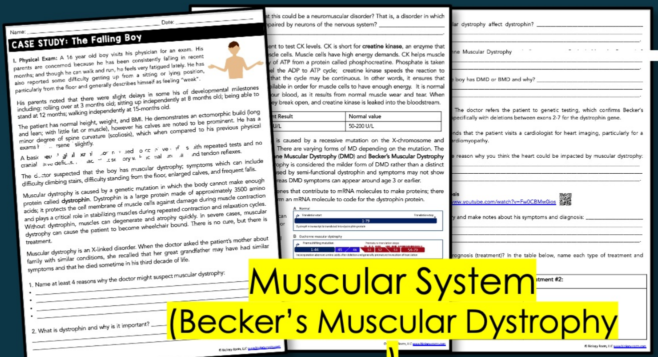
CASE STUDY: The Very Sick Boy

Immune System (Chronic Granulomatous Disease)



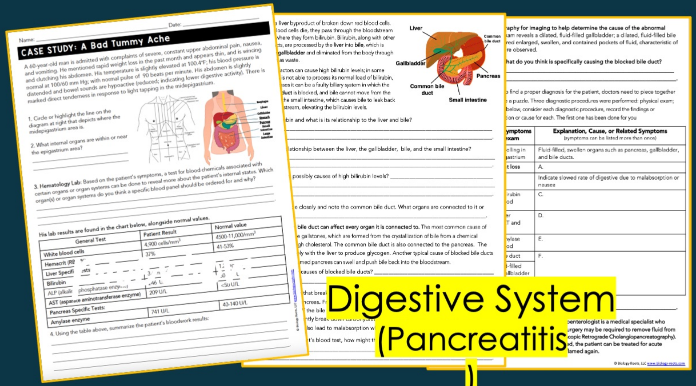
CASE STUDY: The Fragile Woman

Skeletal System (Osteogenesis Imperfecta)



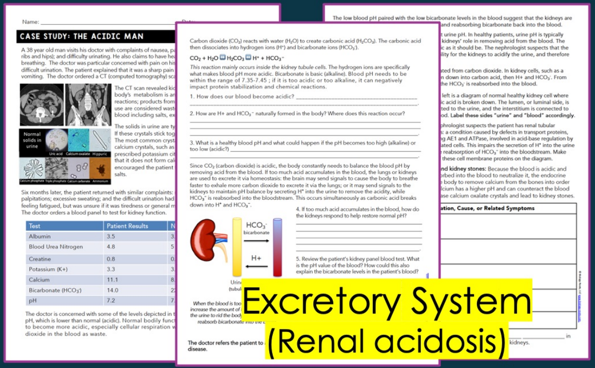
CASE STUDY: The Falling Boy

Muscular System (Becker's Muscular Dystrophy)



CASE STUDY: A Bad Tummy Ache

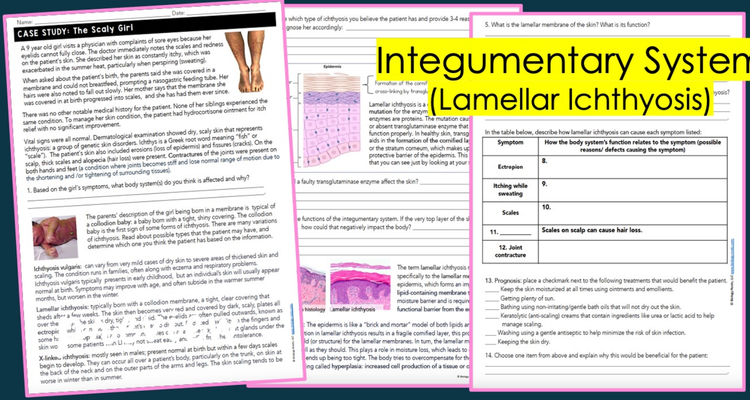
Digestive System (Pancreatitis)



CASE STUDY: THE ACIDIC MAN

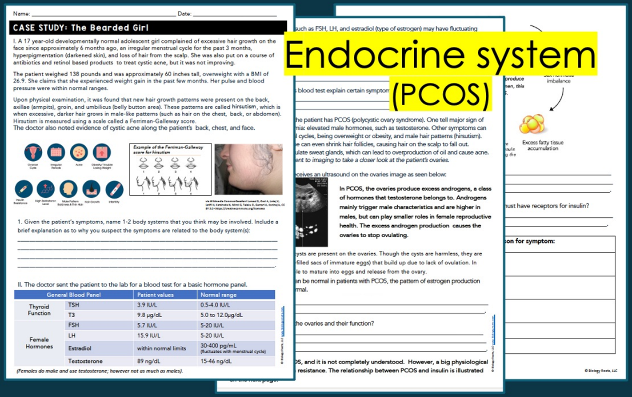
Excretory System (Renal acidosis)

biologyroots



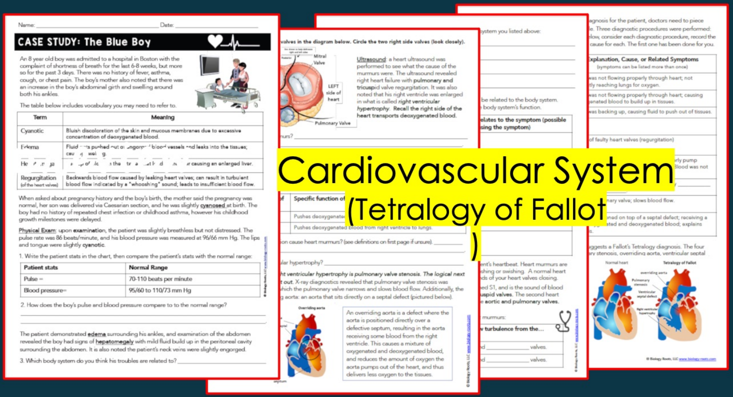
Integumentary System

(Lamellar Ichthyosis)



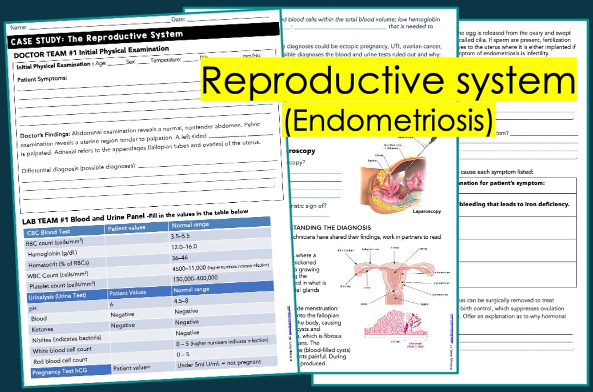
Endocrine system

(PCOS)



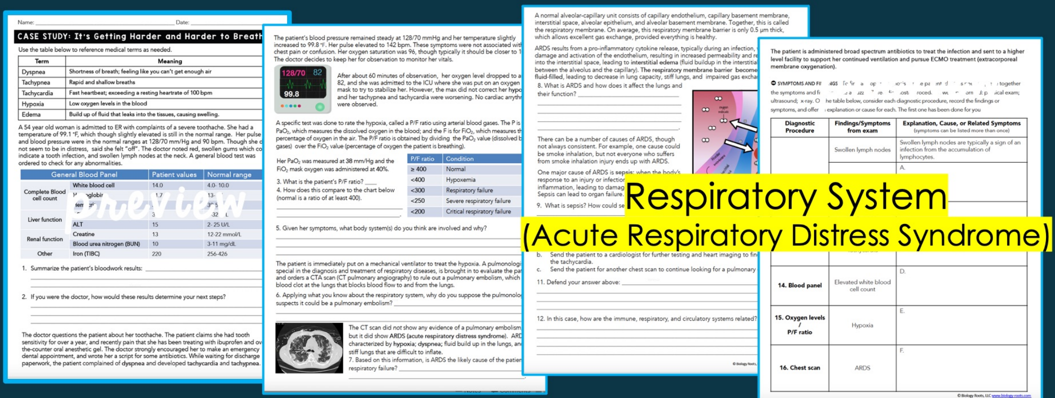
Cardiovascular System

(Tetralogy of Fallot)



Reproductive system

(Endometriosis)



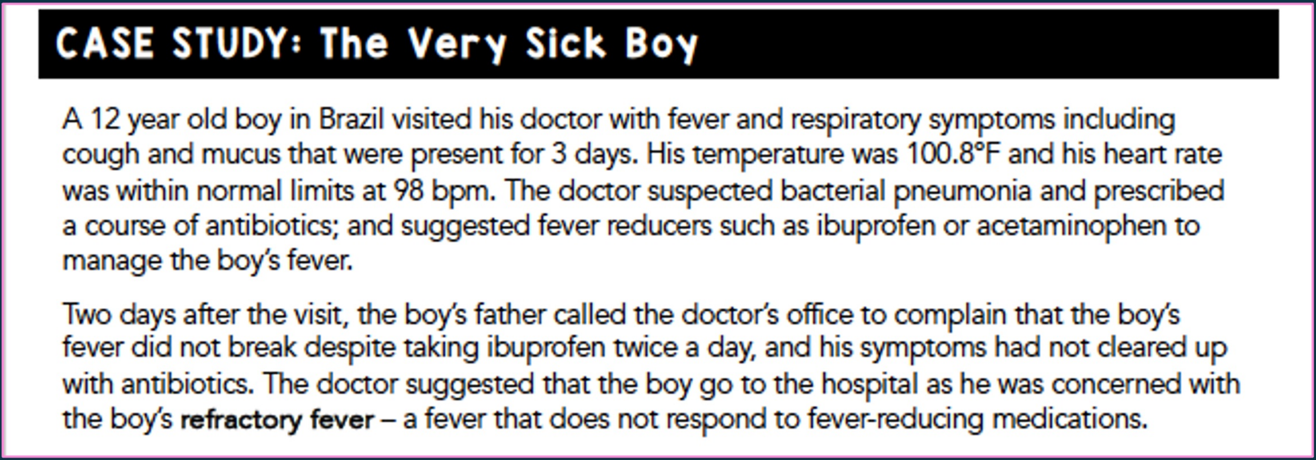
preview

Respiratory System

(Acute Respiratory Distress Syndrome)

biology roots

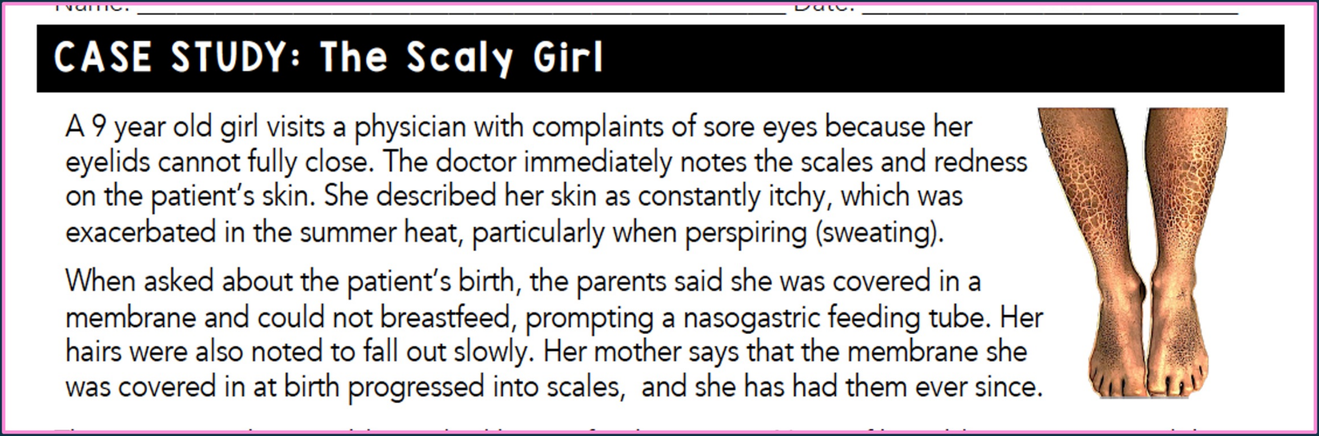
Snippets...



CASE STUDY: The Very Sick Boy

A 12 year old boy in Brazil visited his doctor with fever and respiratory symptoms including cough and mucus that were present for 3 days. His temperature was 100.8°F and his heart rate was within normal limits at 98 bpm. The doctor suspected bacterial pneumonia and prescribed a course of antibiotics; and suggested fever reducers such as ibuprofen or acetaminophen to manage the boy's fever.

Two days after the visit, the boy's father called the doctor's office to complain that the boy's fever did not break despite taking ibuprofen twice a day, and his symptoms had not cleared up with antibiotics. The doctor suggested that the boy go to the hospital as he was concerned with the boy's **refractory fever** – a fever that does not respond to fever-reducing medications.



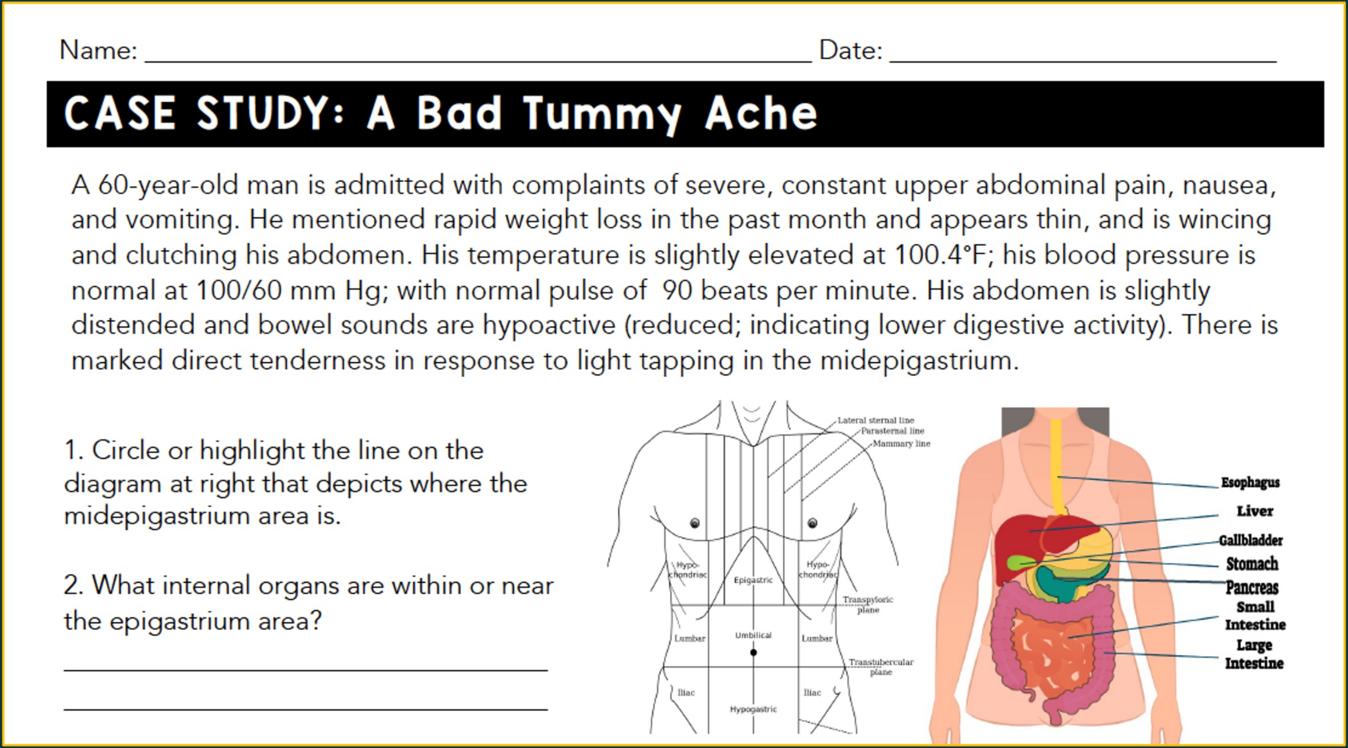
Name: ______________________________ Date: ____________________

CASE STUDY: The Scaly Girl

A 9 year old girl visits a physician with complaints of sore eyes because her eyelids cannot fully close. The doctor immediately notes the scales and redness on the patient's skin. She described her skin as constantly itchy, which was exacerbated in the summer heat, particularly when perspiring (sweating).

When asked about the patient's birth, the parents said she was covered in a membrane and could not breastfeed, prompting a nasogastric feeding tube. Her hairs were also noted to fall out slowly. Her mother says that the membrane she was covered in at birth progressed into scales, and she has had them ever since.

Snippets...



Name: ______________________________ Date: ____________________

CASE STUDY: A Bad Tummy Ache

A 60-year-old man is admitted with complaints of severe, constant upper abdominal pain, nausea, and vomiting. He mentioned rapid weight loss in the past month and appears thin, and is wincing and clutching his abdomen. His temperature is slightly elevated at 100.4°F; his blood pressure is normal at 100/60 mm Hg; with normal pulse of 90 beats per minute. His abdomen is slightly distended and bowel sounds are hypoactive (reduced; indicating lower digestive activity). There is marked direct tenderness in response to light tapping in the midepigastrium.

1. Circle or highlight the line on the diagram at right that depicts where the midepigastrium area is.

2. What internal organs are within or near the epigastrium area?

____

____

Please see the individual previews for more!