

CSM INTRODUCTORY PHYSIOLOGY
PARKINSON'S CASE



Bill Altas is a 70 year old male who was diagnosed with Parkinson's three years ago. This disease affects motor areas of the brain, causing slowed movements, tremor of the hands, and gait disturbances. Parkinson's is a progressive disease and contributes to the early death of victims.

A physical examination reveals Mr. Altas experiences difficulty walking, ataxia, bilateral action tremor and resting tremor, bradykinesia.

Mr. Altas lives with his wife who is in good health. He goes to physical therapy once a week. He takes Levadopa/carbidopa.

Patient Profile: Height: 6' 0", Weight: 170 lbs, vital signs: BP 144/80 mmHg, pulse 74/min, resp. 16/min, temp. 98.4°F

CASE ANALYSIS

1. Identify the potential issues and major topics in the case. What is this case about? Underline terms or phrases that seem to be important to understanding this case. Then list 3 or 4 physiology related topics or issues in the case.
2. What specific questions do you have about these topics? List what you already know about this case in the “What Do I know?” column. List questions you would like to learn more about in the “What Do I Need to Know?” column.

What Do I Know?	What Do I need to Know?

3. Put a check mark by one to three questions or issues in the “What Do I Need to Know?” list that you think are most important to explore.
4. What kind of references or resources would help you answer or explore these questions? Identify two different resources and explain what information each resource is likely to give that will help you answer the question(s). Choose specific resources. For each resource you use, evaluate the quality of the evidence.

<http://www.vtpi.org/resqual.pdf> - is a link to a very informative article about evaluating the quality of information, by Todd Littman.

CORE INVESTIGATIONS

I. Critical Reading

Read up on your functional brain anatomy in your A & P text.

<http://meded.ucsd.edu/clinicalmed/neuro2.htm> - University of California San Diego School of Medicine guidelines for neurological examinations

II. Physiology Labs/Assignments

Nervous System Labs

III. Questions

1. What is the pathophysiology of this disease? Draw a schematic which shows the brain processing areas that control motor activities. Place the Parkinson's problem on this schematic.
2. Describe the diagnostic and functional tests and assessments that inform clinicians about Parkinson's.
3. What are the signs and symptoms of Parkinson's. What stages of severity are there? What are the criteria for each stage?
4. Describe dopamine neurotransmitter – its class, formation, breakdown, etc.
5. What is the preferred treatment for Parkinson's? What combinations of therapies exist? What are the variables that may influence this treatment. Explain the rationale behind each intervention.
6. What is the prognosis for someone with this diagnosis?