1. Draw out the mechanism for excitation/contraction coupling in cardiac muscle. Label and explain the differences in the mechanism between cardiac and skeletal muscle.
2. Why can't you use motor unit recruitment to strengthen force of contraction in cardiac muscle? Explain how you are able to strengthen force.
3. Your patient's lab results come back to your office, and you see that their muscular tissue contains an agonistic toxin with activity similar to a DHP protein. What parts of your patient's body is affected by this, and what types of symptoms might they display next time you see them?
4. Draw a sketch of the heart, as anatomical as you can manage. Include and label all chambers, valves, arteries, and veins entering and exiting, and label where they lead to. Label the areas where blood is oxygenated and deoxygenated. Also include and label the electrical components of the heart. Discuss why the components of the heart are set up in this way.
5. What connects cardiac contractile cells to one another? Why might this be important to function?