

Cornell Guided Notes

Human Anatomy & Physiology (Human Body Systems) | 2027-04-20

Name

Period

Date

Lesson

Lesson focus

Heart model and EKG

Key words and questions

Prepared details and student notes

Essential question
What is today's target?

Students will build a heart-flow model and record an EKG and pulse to relate structure to function. Big idea: Structure and function are inseparable: the sequence of chambers and valves is directly visible in an EKG trace.

My notes, examples, and questions

Key words
What vocabulary unlocks the lesson?

- artery
- vein
- capillary
- atrium
- ventricle
- EKG
- cardiac cycle
- pulse

My notes, examples, and questions

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Cornell Notes - Continued

Key words and questions

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Must-know ideas
What should I understand by the end?

- The P wave represents atrial depolarization; the QRS complex represents ventricular depolarization; the T wave represents ventricular repolarization.
- Blood pressure is expressed as systolic (ventricle contracting) over diastolic (ventricle relaxing) in mmHg.
- Heart rate and blood pressure are vital signs that clinicians use to assess cardiovascular health.

My notes, examples, and questions

Process notes
What happens during class?

- 0-10: Safety and equipment orientation: EKG leads, blood-pressure cuff, pulse oximeter
- 10-22: Assemble or label heart model; demonstrate one-way valve flow
- 22-42: Record resting EKG trace; identify and label P, QRS, and T waves
- 42-55: Measure resting pulse and blood pressure; record with units
- 55-68: Connect EKG wave sequence to cardiac cycle phases in notebook diagram
- 68-80: Cleanup; submit annotated EKG trace and data table

My notes, examples, and questions

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Key words and questions

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Steps and evidence What do I do and turn in?

- Assemble or label a working heart model.
- Demonstrate blood flow through chambers and valves.
- Record a resting EKG trace and identify the heartbeat waves.
- Measure pulse and estimate blood pressure.
- Connect the EKG pattern to the cardiac cycle phases.

Evidence: Lab report - Annotated EKG trace with P, QRS, and T waves labeled and linked to cardiac cycle phases, plus a data table recording resting pulse and blood pressure with units.

My notes, examples, and questions

Checks for understanding How do I know I got it?

- Model correctly shows one-way flow through valves.
- EKG waves are linked to cardiac cycle phases.

My notes, examples, and questions

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Lab or safety notes
What must I handle carefully?

Safety:

- Do not apply EKG electrodes over broken skin, rashes, or wounds; inform the teacher if this applies to you.
- Blood-pressure cuffs should not be inflated above the recommended maximum; follow teacher instructions.
- Students with known cardiac conditions should check with the teacher before participating in EKG recording.
- All electrode pads are single-use and personal; do not share between students.
- Treat all equipment carefully; report any damage to the teacher immediately.

Supplies:

- EKG recording device or sensor (teacher-provided)
- Electrode pads (disposable, per student)
- Manual blood-pressure cuff and stethoscope, or automatic BP monitor
- Pulse oximeter
- Heart model (anatomical or 3D-printed)
- Lab notebook or printed EKG trace sheet
- Ruler for measuring EKG intervals

My notes, examples, and questions

Summary

Today's lesson focused on Heart model and EKG. The main target was: Students will build a heart-flow model and record an EKG and pulse to relate structure to function. The evidence of learning is Lab report: Annotated EKG trace with P, QRS, and T waves labeled and linked to cardiac cycle phases, plus a data table recording resting pulse and blood pressure with units.. In my own words, the most important idea from today is:

My summary

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My final question or connection