

# Cornell Guided Notes

Human Anatomy & Physiology (Human Body Systems) | 2026-12-08

Name

Period

Date

Lesson

## Lesson focus

Vaccine data CER analysis

## Key words and questions

## Prepared details and student notes

**Essential question**  
**What is today's target?**

Students will analyze vaccine and antibody data and write a CER about immunity. Big idea: Antibody-level graphs are the quantitative evidence that vaccines generate durable immune memory.

**My notes, examples, and questions**

**Key words**  
**What vocabulary unlocks the lesson?**

- skin
- lymph
- antibody
- antigen
- pathogen
- vaccine
- innate
- adaptive

**My notes, examples, and questions**

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## Cornell Notes - Continued

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

- A post-vaccination antibody graph typically shows a primary peak followed by a higher, faster secondary peak after a booster or re-exposure.
- Memory B cells are the cellular basis of long-term vaccine protection.
- Limitations of antibody data include waning immunity over time and individual variation in response.

**My notes, examples, and questions**

**Process notes**  
**What happens during class?**

- 0-10: Distribute and orient the vaccine antibody graph; label key features (peaks, doses, time axis)
- 10-25: Guided annotation: mark primary response, secondary response, memory cell involvement
- 25-45: Draft CER: claim about vaccine immunity, two data-point evidence entries, reasoning naming memory cells
- 45-58: Add limitations section: at least one real limitation explained briefly
- 58-70: Peer review: check that reasoning explicitly names memory cells and a mechanism
- 70-80: Revise and submit CER

**My notes, examples, and questions**

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#### Steps and evidence What do I do and turn in?

- Examine a graph of antibody levels after vaccination.
- Make a claim about how vaccines build immunity.
- Cite two data points as evidence.
- Add reasoning connecting memory cells to protection.
- Note one limitation of the data.

Evidence: CER - Written CER analyzing a vaccine antibody graph: claim about how vaccines build immunity, two specific data-point evidence entries, reasoning connecting memory B cells to protection, and one limitation.

#### My notes, examples, and questions

#### Checks for understanding How do I know I got it?

- CER includes claim, evidence, and reasoning.
- Reasoning correctly explains immune memory.

#### My notes, examples, and questions

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**Lab or safety notes**  
**What must I handle carefully?**

Supplies:

- Immune-system modeling kit or labeled cutouts
- Antigen and antibody shape cards
- Skin and lymphatic system diagrams
- Colored markers
- Chart paper
- Lab notebook

**My notes, examples, and questions**

### Summary

Today's lesson focused on Vaccine data CER analysis. The main target was: Students will analyze vaccine and antibody data and write a CER about immunity. The evidence of learning is CER: Written CER analyzing a vaccine antibody graph: claim about how vaccines build immunity, two specific data-point evidence entries, reasoning connecting memory B cells to protection, and one limitation.. In my own words, the most important idea from today is:

**My summary**

### My final question or connection