



Last updated: September 26th, 2023

## Pathophysiology

***PLEASE NOTE THE FOLLOWING DIFFERENCES IN HOW THIS EVENT WILL BE RUN AT HOSA CANADA'S FALL LEADERSHIP CONFERENCE (FLC):***

1. Written test time shortened to 60 minutes (still 100 questions) at FLC only. This test does include a tiebreaker portion, the details of which are specified in the guidelines below.
2. Written test will take place online and be open book at FLC only.

***PLEASE NOTE HOSA CANADA'S SPRING LEADERSHIP CONFERENCE (SLC) WILL BE IN-PERSON AND THIS EVENT WILL BE RUN ACCORDING TO THE GUIDELINES IN THE FOLLOWING PAGES, EXCEPT FOR THE FOLLOWING DIFFERENCE:***

1. There will be a verbal announcement when there are 30 minutes and 5 minutes remaining to complete the written test at SLC.  
*\*Please note that NO verbal announcements will be made at the International Leadership Conference (ILC).*

# Pathophysiology



## New for 2023 – 2024

These guidelines are written for ILC. States may modify events or have different event processes and deadlines. Be sure to check with your Local/State Advisor (or state website) to determine how the event is implemented for the regional/area or state conference. Editorial updates have been made.

## Event Summary

Pathophysiology provides members with the opportunity to gain knowledge and skills regarding pathophysiology concepts. This competitive event consists of a written test with a tiebreaker essay question. This event aims to inspire members to learn about the anatomy and physiology of human diseases impacting the health community.

## Dress Code

Competitors must be in official HOSA uniform or proper business attire. Bonus points will be awarded for [proper dress](#).

### Competitor Must Provide:

- [Photo ID](#)
- Two #2 lead pencils (not mechanical) with eraser

## General Rules

1. Competitors in this event must be active members of HOSA-Future Health Professionals and in good standing.
2. **Eligible Divisions:** Secondary and Postsecondary/Collegiate divisions are eligible to compete in this event.
3. Competitors must be familiar with and adhere to the “[General Rules and Regulations of the HOSA Competitive Events Program \(GRR\)](#).”
  - A. Per the [GRRs](#) and [Appendix H](#), HOSA members may request accommodation in any competitive event. To learn the definition of an accommodation, please read [Appendix H](#). To request accommodation for the International Leadership Conference, [submit the request form here](#) by May 15 at midnight EST.
  - B. To request accommodation for any regional/area or state level conferences, submit the request form [here](#) by your state published deadline. Accommodations must first be done at state in order to be considered for ILC.
4. All competitors shall report to the site of the event at the time designated for each round of competition. At ILC, competitor’s [photo ID](#) must be presented prior to ALL competition rounds.

## Official References

5. All official references are used in the development of the written test.
6. [Frazier. \*Essentials of Human Diseases and Conditions\*. Elsevier. Latest edition.](#)
7. [Zelman, Mark; Raymond, Jill; Holdaway, Paul; Dafnis, Elaine; Mulvihill, Mary Lou. \*Human Diseases A Systemic Approach\*. Pearson. Latest edition.](#)

## Written Test

8. [Test Instructions](#): The written test will consist of 100 multiple choice items in a maximum of 90 minutes.
9. **Time Remaining Announcements**: There will be NO verbal announcements for time remaining during ILC testing. All ILC testing will be completed in the Testing Center and competitors are responsible for monitoring their own time.
10. One essay question will be administered with the original test. In case of a tie, the essay question will be judged and used to break the tie.
11. The test plan for Pathophysiology is:
  - Disease Process & Terminology  
(includes cancer & neoplasms)..... 12%
  - Body Systems
    - Integumentary..... 8%
    - Musculoskeletal..... 10%
    - Circulatory & Lymphatic..... 12%
    - Respiratory..... 8%
    - Digestive..... 12%
    - Endocrine..... 8%
    - Nervous & Senses..... 10%
    - Reproductive..... 6%
    - Urinary..... 6%
  - Mental Disorders..... 8%

## 12. Sample Test Questions

1. The primary cause of osteomalacia is a deficiency or ineffective use of which nutrient? (Frazier p 265)
  - A. Calcium
  - B. Vitamin A
  - C. Iodine
  - D. Vitamin D**
2. Which type of shock is caused by a severe allergic reaction? (Zelman pp 107)
  - A. Anaphylactic**
  - B. Cardiogenic
  - C. Hypovolemic
  - D. Neurogenic
3. What neurotransmitter is produced in insufficient quantities in a patient with Parkinson's disease? (Frazier pp 560)
  - A. Aldosterone
  - B. Dopamine**
  - C. Gamma globulin
  - D. Prednisone

## Final Scoring

13. The competitor should write their answer to the tiebreaker essay question on the tiebreaker page of the test that remains attached to the original test.
14. Final rank is determined by the test score. In case of a tie, the essay question will be used to determine the rank.