## open.michigan

Author: Robert Lyons, Ph.D., 2008

**License:** Unless otherwise noted, this material is made available under the terms of the **Creative Commons Attribution – Share Alike 3.0 License**:

http://creativecommons.org/licenses/by-sa/3.0/

We have reviewed this material in accordance with U.S. Copyright Law and have tried to maximize your ability to use, share, and adapt it. The citation key on the following slide provides information about how you may share and adapt this material.

Copyright holders of content included in this material should contact **open.michigan@umich.edu** with any questions, corrections, or clarification regarding the use of content.

For more information about **how to cite** these materials visit http://open.umich.edu/education/about/terms-of-use.

Any **medical information** in this material is intended to inform and educate and is **not a tool for self-diagnosis** or a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional. Please speak to your physician if you have questions about your medical condition.

Viewer discretion is advised: Some medical content is graphic and may not be suitable for all viewers.





## **Example Questions for Dr. Lyons' Amino Acid Lectures**

Here's a fairly simple question. There's usually a couple of these on each test. My intent is that you should be able to go through the answers and tick them off pretty quickly:

- 1. Degradation of each of the following amino acids starts with transamination, EXCEPT ONE. Choose the exception.
  - A. Alanine
  - B. Phenylalanine
  - C. Isoleucine
  - D. Valine

Some questions will be more complex questions - they require you to think about each answer, and each one might test you on different specific points:

- 2. Which one of the following statements is FALSE?
  - A. A burn victim may show a negative nitrogen balance..
  - B. The classic 'fight-or-flight' response hormone is a derivative of tyrosine.
  - C. Methionine is an essential amino acid.
  - D. Glycine can be converted to serine by a single enzymatic reaction.
  - E. We synthesize Leucine from a THF derivative.

An example of a somewhat more difficult question:

- 3. Which one of the following statements regarding Urea Cycle Defects is TRUE?
  - A. Citrulline is a substrate in the argininosuccinase reaction.
  - B. A patient with AD will need supplementary arginine in the diet.
  - C. A patient with N-acetyl glutamate synthetase deficiency will show orotic acidurea.
  - D. None of the UCD's cause higher citrulline levels in the urine.
  - E. Intravenous sodum benzoate will help a UCD patient eliminate excess nitrogen.