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Curriculum Units by Fellows of the National Initiative
2010 Volume VI: Evolutionary Medicine

Human Health: Correlation, Causation, and Evolution

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The aim of this unit is to teach students how to develop and analyze questions and hypotheses through the lens of evolutionary medicine. More specifically, the skills I want students to have at the end of this unit are the ability to: formulate testable questions, generate proximate and ultimate explanations for phenomena, and draw conclusions from data. The main concepts my students will understand by the end of the unit are that: evolution does not have a direction or plan, our bodies are a result of evolutionary compromises, there are both proximate and ultimate explanations to every human health issue, and correlation does not equal causation.

Evolutionary medicine is a perfect framework for teaching these skills, as it has a useful body of readily available data, and yet still has so many unanswered questions. Using evolutionary medicine will also be helpful because it is a field of science that students can relate to. As the intersection of evolutionary biology and human health, evolutionary medicine will allow students to ask questions about their bodies, their ancestors, and what it means to be human.

(Developed for Health, grade 10; recommended for Biology and Health, High School grades)

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