



YALE NATIONAL INITIATIVE

to strengthen teaching in public schools®

Curriculum Units by Fellows of the National Initiative
2011 Volume VII: Organs and Artificial Organs

Your Liver, Can It Survive Your Abuse?

Guide for Curriculum Unit 11.07.12, published September 2011

by Mary Whalen

The liver is a very important organ in your body, yet is a mystery to most of us. This unit focuses on the biology and functions of the liver, particularly as they relate to drug abuse and risky behaviors. It focuses on several examples of consequences of risky behavior. To illustrate these consequences, I describe the effects of two viruses that are fairly common and can have major consequences for the liver and general health. The first is hepatitis C virus (HCV), which is usually spread through sharing needles, including IV drug abuse and tattoos and piercings with unsterilized, shared needles. HCV can also be spread sexually. Hepatitis B virus (HBV) is generally spread by unprotected sex, although it can also be spread through sharing needles. I also describe the effects of acetaminophen (Tylenol). Acetaminophen is a very common over the counter drug. In high doses, it can destroy the liver. In fact, it can do major damage in recommended doses if the patient has a compromised liver. The unit is also about the ethics of organ transplants. Finally, it touches on artificial organs. This was written for high school health, but would be suitable for biology as well. It would be appropriate for middle school.

(Developed for Health, grades 9-12; recommended for Health and Biology, Middle and High School grades)

<https://teachers.yale.edu>

©2023 by the Yale-New Haven Teachers Institute, Yale University, All Rights Reserved. Yale National Initiative®, Yale-New Haven Teachers Institute®, On Common Ground®, and League of Teachers Institutes® are registered trademarks of Yale University.

For terms of use visit https://teachers.yale.edu/terms_of_use