

## Chapter 14 Reading guide

1. What are the different categories of drugs? Describe/define.
2. Describe the various routes of administration for drugs. □
3. Which route poses a substantial danger of spreading blood-borne diseases, such as hepatitis and HIV? □
4. What is drug misuse? Drug abuse?
5. What are the categories of controlled substances (stimulants, etc)? Provide examples of, and describe, each.
6. Describe at least 3 negative health effects from the use of each: marijuana, ecstasy, methamphetamines, cocaine, anabolic steroids, heroin, LSD, nitrous oxide and any other 2 of your choice. Which of the above is/are most addictive? Which pose the highest risk of serious health consequences (ie, seizures, death, etc) from just one dose? □
7. What are some positive therapeutic effects of marijuana, and what types of illnesses benefit from these effects? Do you think the side-effects of marijuana as a medicine are worse than the side-effects of many prescription drugs? □
8. What part of the brain is affected by hallucinogens? What is synesthesia?
9. What is “sudden sniffing death?”
10. Where in the body (what organ) are most drugs broken down?

-from the required links or supplemental lecture-

11. Are herbal supplements automatically safe because they are natural? Explain.
12. What are the principles recommended by MayoClinic when looking for an herbal supplement?
13. Why is the “USP Verified Supplement” seal an important thing to look for in an herbal supplement?
14. Are pregnant women advised to take herbal supplements? Why or why not?
15. List and briefly describe the “terms on the Drugs Facts Label.”
16. Discuss why it is important to use prescription and over-the-counter drugs correctly.
17. What is antibiotic resistance, and how does it relate to drug misuse?

### Supplemental Lecture: Drug MISUSE

The text mentions drug misuse but covers very little about it... just a small section about the use of oxycontin, Ritalin, etc as recreational drugs by teens.

Drug misuse refers to the use of legal drugs for purposes other than they were intended, by people to whom they were not prescribed, or their overuse. These could be prescription drugs, like some sleeping or pain medications (think of a certain large, conservative talk radio guy... but there are a lot of fully functional adults in the same boat), or Over-the-Counter meds, like cough syrups. Any drug misuse has the potential to be very dangerous and/or addictive.

For example, recently, makers of infant pain relievers and fever reducers recalled their infant products. There was NOTHING WRONG with the products! Why did they recall them? Because there were so many children being injured by PARENTS DOSING THEM INCORRECTLY, accidentally. Just not being careful, basically, because we tend to think that “Tylenol,” “Advil,” and aspirin are so safe. And they are if used correctly. But Tylenol (acetomenophen) can cause liver damage, even if used correctly, if taken a lot... especially when combined with alcohol. And Advil (ibuprofen) can cause kidney damage in large doses (even doses recommended by medical professionals as potent anti-inflammatory). I take both products. They are generally safe. The point is, any medication can be dangerous. Be careful, take only your own prescription, and follow instructions to the letter.

Also, certain drug combinations can be very dangerous and potentially fatal. Be very careful to look at drug interaction information on prescriptions and over-the-counter medications, and consult your pharmacist if you have any questions. Remember that herbal supplements can interact dangerously with your drugs, too!

Another specific example of medication misuse that is having serious and scary results: antibiotics and resistant bacteria (superbugs)

We will probably come back to this later, but this is a good time to bring it up briefly. I'm sure you have all heard of resistant bacteria, superbugs, etc.

What these terms refer to is the fact that there are several strains of pathogenic (disease-causing) bacteria that can no longer be treated with antibiotics. They have become RESISTANT to treatment.

This is the direct result of our overuse and misuse of antibiotics and antibacterial products. Without going into a lot of detail at this point HOW the overuse/misuse causes resistance, let me just outline some examples of practices that have led to this problem:

-doctors prescribing antibiotics for illnesses not caused by bacteria (MOST of the common illnesses: colds, flus, are NOT caused by bacteria. Antibiotics do absolutely NOTHING for these illnesses). You should ONLY take antibiotics if you know for certain your illness is caused by bacteria, and you know the likely type of bacteria so you can take the most appropriate antibiotic.

-patients only taking some of their prescribed antibiotics. When you are prescribed an antibiotic, you must take ALL of it, as prescribed. Do NOT stop when you start feeling better. You will leave the strongest bacteria alive!!!! And then they will be harder to treat later.

-possibly, the across-the-board dosage of antibiotics to farm animals, who are housed in incredibly unsanitary conditions. They are given antibiotics to prevent infection. This combination is suspected as a large part of the development of resistant bacteria. Poultry,

by the way, are not allowed to receive this type of antibiotic dosing (they are still raised in incredibly unsanitary conditions).

-the overuse of antibacterial products by consumers. Soap and flushing with water remain the champions at preventing infection. In the kitchen, be sure not to ingest anything with raw meat or eggs, and not to contaminate any other foods with raw meat or eggs. But, to disinfect, very hot water, soap and elbow grease will do it! Occasional treatment with a dilute bleach solution for the bathroom and kitchen will also be plenty for disinfection without undue promotion of resistant bacteria. [But bleach is bad for both you and the environment, so make it REALLY occasional, and only for disinfecting, not whitening. (This leads to another subject entirely; for less toxic disinfection and cleaning techniques, visit [www.watoxics.org](http://www.watoxics.org), and see their handouts: <http://www.watoxics.org/files/cleaningproducts.pdf> and <http://www.watoxics.org/files/antimicrobials.pdf>)]