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## Chapter 8 Checkpoint Questions - [Click Here for Ch 8](#)

1. List ten (10) examples of substances that are beneficial in small quantities but poisonous in larger doses.
2. List at least two (2) substances that were thought to be beneficial to humans but have recently been questioned.
3. What are some of the influences on the effect of poisons and toxins on the body?
4. Why does arsenic accumulate in hair and fingernails?
5. What is the estimated  $LD_{50}$  of table salt for a 160-pound man? What would it be for  $MgCl_2$  (Epsom salt)? For  $NiCl_2$ ? Why is there such a difference?
6. What is a standard? What is a control?
7. What sources of lead are there in our environment other than lead-based paint?
8. Predict from a table of reduction potentials whether zinc will displace dissolved mercury.

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9. What is a MSDS? Why is it important?
  
10. What is LD<sub>100</sub>?
  
11. Some elements are naturally radioactive; that is, they have either no stable isotopes or have one or more radioactive isotopes. List three (3) common ones.
  
12. What are the three (3) types of particles emitted by radioactive substances? Which one is stopped most easily? Why?
  
13. Would Litvinenko have died if he had merely spilled tea laced with Po-210 on his shirt?
  
14. Would breath analyzers measure nonpotable alcohols or organic vapors, such as methanol or rubbing alcohol (isopropyl alcohol)? Explain.

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15. About how much alcohol would you expect to find in the blood of a 110-pound woman with a BAC of 0.04?
16. Calculate how much blood the woman above has in her body. Show your work.
17. What would be the BAC of a 136-pound woman who has consumed three (3) vodka tonics (2 oz of vodka each, with the vodka at 80 proof) during her lunch hour?  
  
If she forgets the time and talks for two (2) more hours with her friend without having another drink, what will her BAC be when she gets back to work?
18. A 165-pound man was involved in a car accident at 10 pm. His BAC was measured at the time at 0.08, which he said was impossible because he had had only two (2) beers (pint size, 5% alcohol) just after work at 6 pm. How many beers did he actually have?
19. After preliminary observations, a suspect is not required to do anything once pulled over under suspicion of intoxication. The observations consist of erratic driving, staggering, slurred speech, odors associated with alcohol, and the like. Evidentiary tests require

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the suspect to do something, such as blow into a test device, give blood, stand on one leg, or walk a straight line. Do these tests infringe on a person's constitutional rights?

Application: ***Man Eats Underwear to Beat Breathalyzer***

An 18-year-old man tried to eat his underwear while sitting in the back of a police car in the hope that it would absorb the alcohol before he took a Breathalyzer test.

---- abstracted from *The Advocate*

Would this have worked? Explain.