To Hell and Back IV: Cyanide

Test Questions

1. Hydrogen cyanide is a deadly fire gas, over 30 times more toxic than CO.
   a. True
   b. False

2. Hydrogen cyanide is generated during the combustion process; anytime hydrogen, nitrogen and carbon are present.
   a. True
   b. False

3. Smoke inhalation accounts for approximately what percentage of fire related deaths in the US?
   a. 10%
   b. 25%
   c. 50%
   d. 80%

4. The ________________ pick up oxygen from the lungs and carry it throughout the body in the blood.
   a. White blood cells
   b. Red blood cells
   c. Mitochondria
   d. Capillaries

5. Which of the following statements most closely describes how cyanide adversely affects the human body?
   a. Cyanide directly impacts the cells by disabling their ability to convert oxygen into usable energy
   b. Cyanide makes the blood too thick to be pumped throughout the body
   c. Cyanide causes destruction of the lung tissue due to its inherent corrosive nature
   d. Cyanide causes the lungs to malfunction because it is heavier than air

6. An acute cyanide exposure can cause any or all of the following symptoms: rapid breathing initially, then difficult or slow breathing with prolonged exposure; slow or fast heartbeat; giddiness; dizziness
   a. True
   b. False

7. The “toxic twins” of smoke inhalation are
   a. Carbon dioxide and carbon monoxide
   b. Carbon monoxide and carboxyhemoglobin
   c. Carbon monoxide and cyanide
   d. Carbon monoxide and lactic acid
8. It is difficult to distinguish between exposure to carbon monoxide and cyanide
   a. True
   b. False

9. People exposed to low levels of cyanide over a long period of time will have chronic symptoms that may include: chronic lung problems, heart arrhythmias, stroke, paralysis.
   a. True
   b. False

10. On average, approximately how many breaths of air are there per 100 psi in a 4.5 size, 30-minute air bottle?
    a. 26 - 30
    b. 20 - 24
    c. 14 - 18
    d. 8 - 12

11. Generally, when training with SCBA, what type of training is typically least addressed?
    a. Donning properly
    b. Maintenance
    c. Breathing properly
    d. Mask confidence

12. NFPA standard #1584 addresses firefighter rehab at the scene.
    a. True
    b. False

13. During overhaul, a multi-gas meter is recommended to be used
    a. Any time personnel are in the structure
    b. Until PPV has been set up
    c. Until oxygen reading is above 20%
    d. Until a low CO reading is obtained

14. Which of the following is an indicator for suspecting that a person may need treatment for a cyanide exposure due to smoke inhalation?
    a. Rescue from a closed space structure fire; no second degree burns; altered mental status
    b. Rescue from a closed space structure fire; mild headache; complaints of nausea
    c. Rescue from a closed space structure fire; soot in the nose or mouth; altered mental status
    d. Rescue from a closed space structure fire; chest pain; rapid breathing

15. Anytime treatment is considered for smoke inhalation, treatment for cyanide poisoning should also be considered.
    a. True
    b. False