

## Environmental Medicine – Unit Quiz Key

### 1. Why is water considered both helpful and potentially harmful?

- A. It only becomes harmful if it is hot
- B. It interacts with the body and can carry both helpful and unwanted substances
- C. It is always safe to drink
- D. It only affects the body through digestion

(Answer: B)

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### 2. Which situation represents a water exposure pathway that is often overlooked?

- A. Drinking bottled water
- B. Swimming in a lake
- C. Breathing in steam during a shower
- D. Eating dry food

(Answer: C)

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### 3. The idea “water picks things up and carries them” BEST explains:

- A. Why water evaporates
- B. Why water only affects oceans
- C. Why water can transport contaminants through the environment
- D. Why water becomes solid

(Answer: C)

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### 4. Which example BEST shows the “water cycle as an exposure cycle”?

- A. Rain falling into the ocean
- B. Water staying in one place
- C. Water evaporating and disappearing
- D. Chemicals from a farm eventually entering drinking water

(Answer: D)

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### 5. Why can well water vary more than city water?

- A. It is always filtered
- B. It is not influenced by the environment
- C. It is untreated and depends on surrounding conditions
- D. It contains no microbes

(Answer: C)

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### 6. Why might water sitting in pipes overnight change in quality?

- A. It becomes pure
- B. It cools down
- C. It may interact with pipe materials and microbes
- D. It turns into air

(Answer: C)

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### 7. What is a biofilm?

- A. A type of water filter
- B. A layer of minerals
- C. A chemical disinfectant
- D. A community of microbes attached to surfaces

(Answer: D)

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### 8. Which BEST explains how buildings affect water quality?

- A. Water ignores buildings
- B. Pipe materials, leaks, and stagnation can change water
- C. Buildings only affect air

D. Water quality depends only on weather

**(Answer: B)**

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**9. Why is air considered a constant exposure pathway?**

- A. You can choose when to breathe
- B. You only breathe during activity
- C. You breathe continuously without thinking about it
- D. Air does not enter the body

**(Answer: C)**

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**10. Which statement BEST describes air?**

- A. Air is empty space
- B. Air is only oxygen
- C. Air is a solid
- D. Air is a mixture of gases, particles, and chemicals

**(Answer: D)**

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**11. Why do small air exposures matter over time?**

- A. They disappear immediately
- B. They accumulate with repeated breathing
- C. They only affect the skin
- D. They are always harmless

**(Answer: B)**

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**12. Which of the following is an indoor air pollutant source?**

- A. Rocks outside
- B. Human breath and skin emissions
- C. The moon
- D. Clean water

**(Answer: B)**

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**13. Why is indoor air often more important than outdoor air?**

- A. It moves faster
- B. It contains more oxygen
- C. People spend most of their time indoors
- D. It is always cleaner

**(Answer: C)**

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**14. Which factor contributes MOST to poor indoor air quality?**

- A. Too much sunlight
- B. High ventilation
- C. Air moving quickly
- D. Trapped air and limited airflow

**(Answer: D)**

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**15. Which activity can significantly change indoor air chemistry?**

- A. Sitting still
- B. Sleeping quietly
- C. Cooking and cleaning
- D. Reading

**(Answer: C)**

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**16. What surprising role do humans play in indoor air quality?**

- A. No role
- B. They remove pollutants
- C. They absorb all chemicals

D. They release chemicals and particles into the air  
(Answer: D)

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**17. What does “body burden” refer to?**

- A. Body weight
- B. The total amount of substances accumulated in the body
- C. Muscle strength
- D. Height

(Answer: B)

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**18. Why is time an important factor in body burden?**

- A. Time removes all exposures
- B. Only large exposures matter
- C. Repeated small exposures can build up over time
- D. Time has no effect

(Answer: C)

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**19. What does the “cup filling with drops” analogy represent?**

- A. Immediate toxicity
- B. Sudden exposure
- C. Random events
- D. Gradual accumulation over time

(Answer: D)

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**20. What is meant by the body’s “capacity limit”?**

- A. The body cannot process anything
- B. The point where accumulated exposures begin to affect the body
- C. The amount of food you eat
- D. The amount of air you breathe

(Answer: B)

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**21. Why is the “last drop” not considered the true cause of a problem?**

- A. It is too small
- B. It happens first
- C. It reveals that accumulation has already reached a limit
- D. It disappears quickly

(Answer: C)

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**22. What does the “terrain” concept suggest?**

- A. The body never changes
- B. The body reacts the same way every time
- C. Only genetics matter
- D. Repeated exposures can change how the body responds over time

(Answer: D)

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**23. How do fat-soluble substances behave differently from water-soluble ones?**

- A. They leave the body faster
- B. They dissolve only in blood
- C. They are not absorbed
- D. They can be stored in fat and remain longer

(Answer: D)

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**24. Which substance is MOST likely to leave the body quickly?**

- A. Fat-soluble chemical
- B. Persistent toxin
- C. Water-soluble substance

D. Stored compound

(Answer: C)

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**25. Which BEST explains why body burden differs between individuals?**

A. Everyone has identical exposure

B. Only diet matters

C. It depends on exposure, chemistry, and the body's ability to clear substances

D. It is random

(Answer: C)

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**26. Which example BEST shows biomagnification (food chain buildup)?**

A. Plants absorbing sunlight

B. Small fish containing fewer substances than larger predator fish

C. Water evaporating

D. Air moving

(Answer: B)

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**27. What is a common pathway for contact exposure?**

A. Sound waves

B. Light exposure

C. Touching surfaces and then touching your face

D. Thinking about something

(Answer: C)

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**28. Which is an example of a “tracked-in exposure”?**

A. Breathing outdoor air

B. Drinking water

C. Sunlight entering a room

D. Dirt and chemicals brought in on shoes

(Answer: D)

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**29. What is the main goal of environmental design?**

A. Eliminate all exposures

B. Avoid leaving the house

C. Reduce unnecessary exposures through smarter choices

D. Ignore the environment

(Answer: C)

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**30. Which statement BEST captures the core idea of this unit?**

A. The environment stays outside the body

B. Only large exposures matter

C. Health depends only on genetics

D. Repeated interactions with air, water, food, and surfaces shape the body over time

(Answer: D)

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