

Urban Planning and Human Health

Urban Planning · Answer Key · 20 Questions

1. Well-designed urban parks and green spaces are most directly linked to improved mental health by reducing levels of which stress hormone?

- A) Insulin
- B) Cortisol**
- C) Thyroxine
- D) Melatonin

2. Urban planning that prioritizes walkable neighborhoods and access to public transportation encourages physical activity, which is crucial for preventing which common chronic disease?

- A) Color blindness
- B) Osteoporosis
- C) Type 2 Diabetes**
- D) Asthma

3. Increased exposure to natural light in urban buildings, facilitated by good architectural and urban design, can help regulate which bodily function?

- A) Blood pressure
- B) Body temperature
- C) Circadian rhythms (sleep-wake cycle)**
- D) Digestive processes

4. Urban planning that reduces traffic congestion and promotes cleaner energy sources directly impacts air quality, which is vital for the health of which organ system?

- A) Skeletal system
- B) Nervous system
- C) Respiratory system**
- D) Integumentary system

5. Access to safe and well-lit public spaces in urban areas has been shown to positively impact social interaction and reduce feelings of isolation, which can contribute to better outcomes for which aspect of health?

- A) Bone density
- B) Immune system function
- C) Mental well-being**
- D) Muscle strength

6. Urban planning that incorporates mixed-use developments, allowing people to live, work, and shop within close proximity, can reduce commute times and therefore decrease exposure to which environmental pollutant?

- A) Ozone
- B) Particulate matter from vehicle exhaust**
- C) Nitrous oxide
- D) Sulfur dioxide

7. The availability of community gardens and farmers' markets in urban areas, a result of thoughtful planning, can improve access to which essential nutrients for a healthy diet?

- A) Vitamin D
- B) Fresh fruits and vegetables**
- C) Iron
- D) Calcium

8. Urban design that promotes universal accessibility, including ramps and accessible public transport, ensures that individuals with mobility challenges can maintain their physical and social engagement, benefiting their overall health by preventing:

- A) Dehydration
- B) Muscle atrophy**
- C) Hypothermia
- D) Hyperthermia

9. Studies suggest that living in neighborhoods with ample tree canopy cover can help lower ambient temperatures during heatwaves, thus reducing the risk of heat-related illnesses such as:

- A) Hypoglycemia
- B) Heatstroke**
- C) Anemia
- D) Dehydration

10. Urban planning that aims to reduce noise pollution, for example by strategic placement of sound barriers or green buffers, can have a positive impact on which physiological response?

- A) Heart rate variability
- B) Blood sugar regulation
- C) Digestion rate
- D) Sleep quality**

11. The presence of safe and accessible pedestrian and cycling infrastructure, a key element of healthy urban planning, directly supports the body's cardiovascular system by promoting:

- A) Increased blood clotting
- B) Improved aerobic capacity**
- C) Reduced oxygen uptake
- D) Decreased blood circulation

12. Urban planning that ensures proximity to healthcare facilities and emergency services directly impacts the speed and effectiveness of medical intervention in cases of:

- A) Chronic fatigue
- B) Acute injuries and illnesses**
- C) Seasonal allergies
- D) Minor skin irritations

13. Good urban lighting design that balances visibility with minimal light pollution can help maintain the body's natural production of which hormone, essential for sleep?

- A) Adrenaline
- B) Melatonin**
- C) Serotonin
- D) Dopamine

14. Urban planning that aims to create diverse and inclusive public spaces encourages social mixing and community cohesion, which are known to positively influence:

- A) Cell regeneration
- B) Immune system resilience**
- C) Bone growth
- D) Eye health

15. The provision of public water fountains and accessible restrooms in urban design contributes to public health by promoting:

- A) Proper hydration and hygiene**
- B) Improved digestion
- C) Enhanced nutrient absorption
- D) Better temperature regulation

16. Urban planning that incorporates stormwater management systems, like permeable pavements and rain gardens, helps prevent water contamination and thus protects public health from waterborne:

- A) Viruses
- B) Bacteria
- C) Parasites
- D) All of the above**

17. The design of safe and well-maintained sidewalks and crosswalks in urban environments directly reduces the risk of which type of physical injury?

- A) Internal bleeding
- B) Fractures and sprains from falls**
- C) Organ damage
- D) Muscle tears

18. Urban planning that encourages the development of 'complete streets' with dedicated lanes for pedestrians, cyclists, and public transport aims to reduce motor vehicle accidents, thereby lowering the incidence of:

- A) Dental caries
- B) Traumatic brain injuries**
- C) Kidney stones
- D) Gallbladder disease

19. The strategic placement of shade structures and trees in urban public areas can help prevent excessive exposure to ultraviolet (UV) radiation, reducing the risk of:

- A) Vitamin C deficiency
- B) Skin cancer**
- C) Hearing loss
- D) Allergic rhinitis

20. Urban planning that promotes housing with adequate ventilation and natural light can help reduce the incidence of respiratory issues linked to:

- A) Dehydration
- B) Mold and poor indoor air quality**
- C) Vitamin D deficiency
- D) Lack of exercise