

CONCEPT: INFECTION RISK FACTORS

- ◆ Two types of risk factors are associated with the likelihood of infection:
 - Controllable
 - Hard-to-Control/Uncontrollable

Controllable Risk Factors

- ◆ Some important controllable risk factors for infection are:

Controllable Risk Factors for Infection			
1. Exposure 	<ul style="list-style-type: none">► Poor personal hygiene.► Drug abuse, unsafe sexual behavior.	2. Physical Inactivity 	<ul style="list-style-type: none">► ___ immunity and ___ risk of severe illness.
3. Poor Nutrition 	<ul style="list-style-type: none">► Affects gut microbiome and ___ risk of infections.► Affects development of immune system.	4. Poor Sleep and Stress 	<ul style="list-style-type: none">► ___ immune system.

EXAMPLE

Which of the following risk factors cannot be controlled?

- a) Poor nutrition due to limited access to fresh produce (food deserts).
- b) Physical inactivity due to lower back pain.
- c) Physical touch with a person with scabies.
- d) Improper handwashing before eating.

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Hard-to-Control/Uncontrollable Risk Factors

- ◆ Some social, environmental, and biological factors can increase susceptibility to infections.

Hard-to-Control & Uncontrollable Risk Factors					
1. Occupational & Social 	<ul style="list-style-type: none">▶ Hospital workers have ___ risk of infections.▶ Areas with _____ ventilation.	2. Parents with Young Children 	<ul style="list-style-type: none">▶ ~ 40% children get the flu in an outbreak.▶ Parents ___ more likely to get cold/flu.		
3. Age & Heredity 	<ul style="list-style-type: none">▶ Immunity _____ with age.▶ Immunodeficiency can be hereditary.	4. Chronic Diseases 	<ul style="list-style-type: none">▶ Diabetes and cancer can ___ immunity.		
5. Climate/ Environment 	<ul style="list-style-type: none">▶ ___ in temperature cause ↑ insect populations (e.g., mosquitos).▶ Animal migration can introduce new diseases.	6. Virulence & Antimicrobial Resistance 	<ul style="list-style-type: none">▶ Some infections spread faster than others.▶ Bacteria become drug _____.		

EXAMPLE

Which of the following is not an example of an uncontrollable risk factor for infection?

- Having a higher risk of shingles due to a previous chickenpox infection.
- Being bitten by a mosquito when camping in the woods.
- Being infected with a drug-resistant strain of bacteria.
- A nurse getting sick during the COVID-19 pandemic.

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PRACTICE

Which of the following is incorrect about controllable risk factors of infection?

- a) The risk of infection from any pathogens depends on the immune strength of an individual.
- b) Physical activity decreases the risk of severe illness from infections.
- c) Balanced nutrition helps maintain gut microbiome and reduces the risk of infection.
- d) Poor personal hygiene only increases the risk of infections for people with weak immune system.

PRACTICE

Which of the following is correct about hard-to-control risk factors of infection?

- a) Climate change can increase the risk of direct cross-species transmission by forcing animal migration.
- b) The risk of infections for individuals with chronic diseases is the same as healthy individuals.
- c) Healthcare workers have a higher risk of infection than people in other professions.
- d) Lack of sleep and chronic stress increase the likelihood of infection by weakening the immune system.