

MICROORGANISMS AND HEALTH

Key Concepts

- Microorganisms include bacteria, viruses, and fungi.
- Some microorganisms cause disease, but others are helpful.
- Vaccines protect against certain diseases.

Key Facts to Remember

- Good bacteria help digest food, make vitamins, and protect against harmful bacteria by competing for space in the gut.
- Antibiotics kill bacteria but not viruses, so they are ineffective against illnesses like the flu.
- Washing hands with soap removes germs and prevents their spread.
- Fungi like yeast are used in baking (to make bread rise) and brewing (to ferment beverages).
- Some viruses can be prevented through vaccines, which train the immune system by introducing a harmless form of the virus.
- Pathogenic microorganisms can cause diseases such as colds, flu, food poisoning, and tuberculosis.
- The body's first line of defense includes physical barriers like skin, mucus that traps pathogens, and stomach acid that destroys them.
- White blood cells are part of the immune system, attacking harmful microorganisms that enter the body.
- Probiotics are supplements containing live beneficial bacteria to support gut health.
- Viruses reproduce by invading host cells, unlike bacteria, which can multiply on their own.

Quick Questions

1. Name one helpful microorganism.
2. What do antibiotics treat?
3. How can you prevent spreading germs?
4. What microorganism is used in making bread?
5. What do vaccines do?
6. Name a disease caused by a virus.
7. What is the body's first line of defense?
8. Can antibiotics kill viruses?



Fun Fact

There are more bacteria in your mouth than people on Earth!