

# Discover The Microbes in Your Microwave: Shocking Findings Unveiled

## **Description**

Microwave ovens are common in kitchens and offices today. Scientists recently studied the tiny life forms living inside microwaves.

They found that even though microwaves produce strong radiation, many germs can survive inside them. Some bacteria, like Brachybacterium and Micrococcus, are found in all microwaves they tested.

In kitchens, microwaves had similar bacteria to other surfaces. Some bacteria found, like Klebsiella and Enterococcus, can be harmful, but they were not more common in microwaves than in other kitchen areas.

Household microwaves had fewer types of bacteria than shared spaces like break rooms. Laboratory microwaves had the most diverse bacteria because they are used for heating experiments.

Some bacteria in laboratory microwaves are resistant to radiation. It's important to clean your microwave regularly to keep it germ-free.

The study was published in the journal Frontiers in Microbiology.

## **Vocabulary List:**

- 1. **Radiation** /,rei.di'ei.ʃən/ (noun): The emission of energy as electromagnetic waves or as moving subatomic particles.
- 2. Bacteria /bæk'tɪə.ri.ə/ (noun): Microscopic living organisms usually single-celled that can be found everywhere.
- 3. **Survive** /sər'vaɪv/ (verb): To continue to live or exist especially in spite of danger or hardship.
- 4. Common /'kpm.ən/ (adjective): Occurring found or done often; prevalent.
- 5. **Diverse** /daɪ'vɜːs/ (adjective): Showing a great deal of variety; very different.
- 6. Germ-free /dʒɜːm-friː/ (adjective): Free of germs or microorganisms.

# **Comprehension Questions**

#### **Multiple Choice**

What did scientists study recently in relation to microwaves?
 Option: Tiny life forms living inside microwaves



Option: Microwave radiation effects on food Option: Microwave energy consumption Option: Microwave cooking techniques

2. Which bacteria were found in all microwaves tested by scientists?

Option: Klebsiella and Enterococcus

Option: Brachybacterium and Micrococcus Option: Staphylococcus and Streptococcus

Option: Salmonella and E. coli

3. Where were fewer types of bacteria found in microwaves compared to shared spaces like break rooms?

Option: Laboratories

Option: Offices Option: Households Option: Kitchens

4. Which type of microwaves had the most diverse bacteria according to the study?

Option: Household microwaves

Option: Office microwaves

Option: Laboratory microwaves
Option: Break room microwaves

5. What is recommended to keep microwaves germ-free based on the study?

Option: Increase microwave radiation
Option: Use stronger cleaning chemicals

Option: Regular cleaning

Option: Only use microwaves for short durations

6. Which journal published the study on bacteria in microwaves?

Option: Frontiers in Microbiology Option: Journal of Bacteriology Option: Microorganisms Research

Option: Science Advances

#### **True-False**

7. Microwaves can completely eliminate all bacteria inside them.



- 8. Shared spaces like break rooms had more diverse bacteria in microwaves compared to households.
- 9. Household microwaves had the least amount of bacteria types according to the study.
- 10. Some bacteria in laboratory microwaves are resistant to radiation.
- 11. All harmful bacteria found in microwaves were more common in microwaves than in other kitchen areas.
- 12. Regular cleaning is not important for keeping microwaves germ-free according to the study.

#### **Gap-Fill**

| 13. Scientists found that even though microwaves produce strong radiation, many            |
|--|
| can survive inside them.   |
| 14. Laboratory microwaves had the most diverse bacteria because they are used for          |
| experiments.   |
| 15. It is important to clean your microwave regularly to keep it                           |
| 16. Some bacteria found in all microwaves tested by scientists include Brachybacterium and |
|  |
| 17. Household microwaves had fewer types of bacteria than shared spaces like               |
| 18. The study on bacteria in microwaves was published in the journal                       |

#### **Answer**

Multiple Choice: 1. Tiny life forms living inside microwaves 2. Brachybacterium and Micrococcus 3.

Households 4. Laboratory microwaves 5. Regular cleaning 6. Frontiers in Microbiology

True-False: 7. False 8. True 9. True 10. True 11. False 12. False

Gap-Fill: 13. germs 14. heating 15. germ-free 16. Micrococcus 17. break rooms 18. Frontiers in Microbiology

# Vocabulary quizzes



#### Multiple Choice ( Select the Correct answer for each question. )

1. Which disease is caused by the bacterium Treponema pallidum?

Option: Syphilis Option: Norovirus Option: Diabetes Option: Dementia

2. Which term refers to something from a long time ago?

Option: Ancient Option: Radiation Option: Resilience Option: Diabetes

3. Which process turns organic remains into minerals?

Option: Fossilized Option: Exoskeleton Option: Assess

Option: Contaminated

4. What is the term for being well-watered or retaining water?

Option: Hydrated
Option: Diabetes
Option: Inflammation
Option: Dementia

5. What are single-celled microorganisms called?

Option: Bacteria Option: Preserved Option: Diverse Option: Survive

6. Which virus is known for causing stomach and intestinal inflammation?

Option: Norovirus
Option: Exoskeleton
Option: Ancient
Option: Syphilis

7. What energy is emitted by particles?

Option: Radiation Option: Germ-free Option: Urging



Option: Lifestyle

8. Which health condition is characterized by high blood sugar levels?

Option: Diabetes Option: Dementia Option: Embryos Option: Disinfect

9. Which condition leads to a decline in cognitive function?

Option: Dementia Option: Researcher Option: Germ-free Option: Survive

10. Which term refers to the ability to recover from difficulties?

Option: Resilience Option: Bacteria

Option: Contaminated

Option: Syphilis

## Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

| 11. A sudden                             | of a disease in a specific population can lead to widespread concern. |
|--|---|
| 12. The co                               | llected data to analyze the results of the study.                     |
| 13. Common                               | of the flu include fever cough and fatigue.                           |
| 14. Chronic                              | can lead to serious health conditions if left untreated.              |
| 15. Health experts are                   | the public to get vaccinated against the flu.                         |
| 16. Adopting a healthy                   | can reduce the risk of many chronic diseases.                         |
| 17. Certain bacteria can                 | in extreme environments due to their adaptive abilities.              |
| 18. Avoid consuming                      | food or water to prevent foodborne illnesses.                         |
| 19. The ancient artifacts were well $\_$ | in specially designed containers.                                     |
| 20. Health professionals regularly _     | the risk factors associated with certain diseases.                    |
|  |   |



#### Matching Sentences (Match each definition to the correct word from the vocabulary list.)

- 21. Digital technologies have revolutionized the way people are globally.
- 22. Laboratory mice raised in a environment help scientists study the role of microbes in health.
- 23. Insects have an external skeletal structure called an for support and protection.
- 24. The detective carefully examined the crime scene for any that could lead to solving the case.
- 25. The researchers studied the development of frog to understand genetic processes.
- 26. It is important to surfaces regularly to prevent the spread of germs and viruses.
- 27. Colds are a illness especially during the winter months.
- 28. The Amazon rainforest is home to a range of plant and animal species.
- 29. The archaeologists unearthed an burial site dating back thousands of years.
- 30. The community showed great in rebuilding after the natural disaster.

### **Answer**

**Multiple Choice:** 1. Syphilis 2. Ancient 3. Fossilized 4. Hydrated 5. Bacteria 6. Norovirus 7. Radiation 8. Diabetes 9. Dementia 10. Resilience

**Gap-Fill:** 11. outbreak 12. researcher 13. symptoms 14. inflammation 15. urging 16. lifestyle 17. survive 18. contaminated 19. preserved 20. assess

**Matching sentence:** 1. connected 2. germ-free 3. exoskeleton 4. clues 5. embryos 6. disinfect 7. common 8. diverse 9. ancient 10. resilience

#### **CATEGORY**

1. Health - LEVEL2

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