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**G.P.PORWAL SCIENCE ARTS, COMMERCE AND V.V.SALIMATH  
SCIENCE COLLEGE SINDAGI-586128**

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# **PROJECT REPORTE**

## **DEPARTMENT OF ZOOLOGY**

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**Sub :- Zoology (D S C)**

**Title of the project :- Bacteria & Types**

**Rejistar No:- U15NB21S0059**

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## Bacteria

Bacteria are tiny, single-celled living organisms. There are millions of different types of bacteria. Many can be found in and on your body and are beneficial to you. These bacteria make up your microbiome which keeps your body healthy. Other bacteria can make you sick. Healthcare providers can treat many bacterial infections with antibiotics.

### What are Bacteria : —

Bacteria are microscopic living organisms that have only one cell. The word for just one is "bacterium". Millions of different types of bacteria can be found all over the world, including in your body.

They're on your skin and in your airways and mouth. They're also in your digestive system, reproductive system and urinary tract. Scientists estimate you have 10 times more bacterial cells than human cells in your body.



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What are Benefits of Bacteria?

⇒ Most types of bacteria aren't harmful. Some are even good for you. These helpful bacteria are mainly located on your skin or in your gut or digestive system. They're called resident flora on or your microbiome which are groups of microbes living in and on your body.

Gut bacteria keep you healthy by absorbing nutrients, breaking down food and preventing the growth of harmful bacteria.

### Risks

Streptococcus :- Bacteria that cause  
Strep throat

Staphylococcus :- Bacteria that cause  
staph infections

Escherichia coli :- Bacteria that cause



## Example

*Aerococcus urinae*: Bacteria in urine that cause urinary tract infections

*Chlamydia trachomatis*: Bacteria that cause a sexually transmitted infection called chlamydia.

*Bordetella pertussis*: Bacteria that cause whooping cough

## Bacteria shapes

Another way scientists classify bacteria is by their shape. There are three basic bacterial shapes

- spheres shapes
- Rod-shape
- Spiral shape

## How do bacteria produce

Most bacteria reproduce through binary fission. This means that each bacterium cell duplicates its DNA and then divides

one copy of DNA

## Structure

Bacteria cells are different from plant & animal cells. Bacteria are prokaryotes, which mean they have no nucleus

- Autotrophic bacteria make their own food, either through either

Photosynthesis, using sunlight, water and carbon dioxide

Chemosynthesis, using carbon dioxide water and chemicals such as ammonia, nitrogen, sulfur and other

Thermophiles can live in high temperatures upto 75 to 80°C and hyperthermophiles can survive in temperature upto 113°C

# Bacteria And types

**Bacterial Cell Anatomy**

## Types

Sphere shape  
Cocci

Rod shape  
Bacilli

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