



**Lecture title: The difference between Bacteria and Viruses**

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**Summary:** *The difference between Bacteria and Viruses*

Bacteria	Virus
1. Bacteria are totally living in nature.	1. Viruses are present in both living and nonliving form.
2. Cell wall of Bacteria is made up of lipopolysaccharide or peptidoglycan.	2. Cell wall is absent but a capsid is present in them.
3. Size of Bacteria is between 900–1000nm.	3. Size of the Virus is between 30–50nm.
4. They can survive without a host.	4. They cannot survive without a host.
5. Bacteria reproduce mainly by binary fission.	5. They reproduce by lytic fission and produce their similar copies.



6. Ribosomes are present in Bacteria.	6. Ribosome is absent in Bacteria.
7. RNA and DNA float freely inside cytoplasm.	7. RNA and DNA are present inside the proteinous covering.
8. Antibiotics are effective for Bacterial infections.	8. Antivirals are effective for viral infection.
9. Bacteria causes disease like food poisoning, ulcers, pneumonia,etc.	9. Virus causes infection like AIDS, common cold, chickenpox, etc.
10. Most of the Bacteria can reproduce without a host.	10. Viruses need a host for their reproduction process.



11. Bacterias are both pathogenic and parasitic in nature.	11. They are only parasitic in nature.
12. Bacterial infections are generally localised.	12. Viral infections are systemic.
13. Incubation period of Bacterias is 1-2 weeks.	13. Incubation period of the Virus is 20 days-2 months.
14. Example of Bacterias: Vibrio cholerae, Staphylococcus, etc.	14. Example of Viruses: HIV, RhinoVirus, etc.