

## SHAPE OF THE BACTERIA

Depending on their shape, bacteria are classified into several varieties

1. Cocci (from kokkos meaning berry) are spherical or oval cells

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## Morphology and Classification of Bacteria

### MICROBIOLOGY

### MODULE

### Microbiology

### Notes

2. Bacilli (from baculus meaning rod) are rod shaped cells

3. Vibrios are comma shaped curved rods and derive their name from their

characteristics vibratory motility.

4. Spirilla are rigid spiral forms.

5. Spirochetes (from speira meaning coil and chaite meaning hair) are flexuous

spiral forms

6. Actinomycetes are branching filamentous bacteria, so called because of a

fancied resemblance to the radiating rays of the sun when seen in tissue

lesions (from actis meaning ray and mykes meaning fungus)

7. Mycoplasmas are bacteria that are cell wall deficient and

hence do not

possess a stable morphology. They occur as round or oval

bodies and as

interlacing filaments.

**Fig. 1.3: Shapes of bacteria.**

### MICROBIOLOGY

## MODULE Morphology and Classification of Bacteria

### Microbiology

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### Notes

## INTEXT QUESTION 1.3

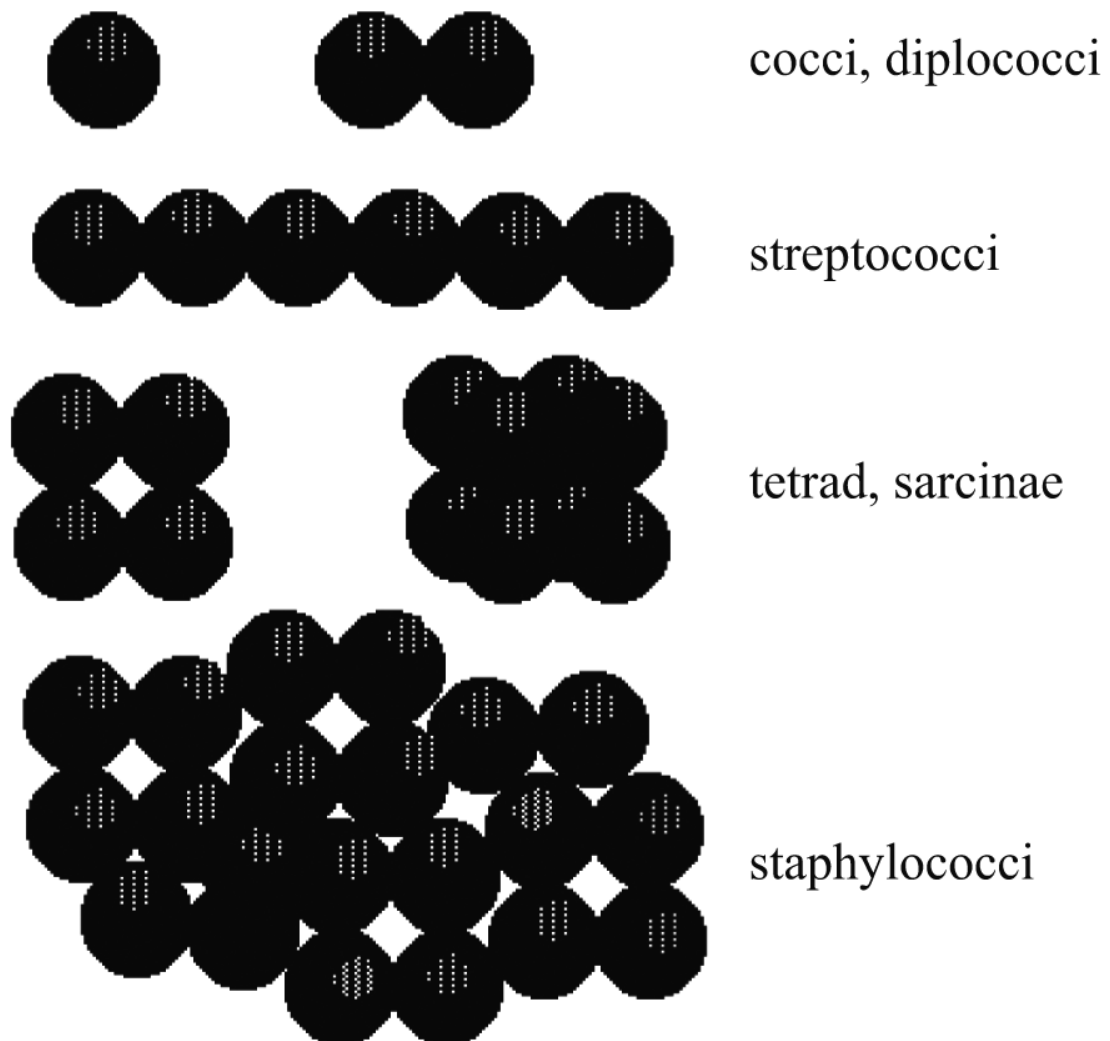
Match the following:

1. Bacilli (a) coma

2. Cocci (b) flexous spiral form
3. Vibrio (c) rigid spiral form
4. Sprillum (d) rod shaped
5. Spirochetes (e) spherical shaped

Bacteria sometime show characteristic cellular arrangement





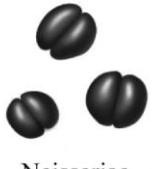


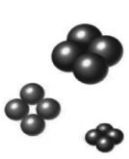



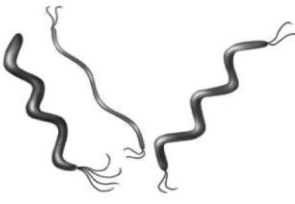





Bacteria sometime show characteristic cellular arrangement or grouping. According to the plane of cellular division, cocci may be arranged in pairs (diplococci), chains (streptococci), groups of four (tetrads) or eight (sarcina), or grape like clusters (staphylococci).



Arrangement of Cocci

Match the following:

1. Diplococci (a) groups of four
2. Streptococci (b) groups of eight
3. Tetrads (c) occurs in pairs
4. Sarcina (d) grape like clusters
5. Staphylococci (e) occurs in chains

 <p>Coccus</p>		 <p>Rod, or bacillus</p>		 <p>Curved forms: Spirillum/Spirochete</p>	
 <p>Diplococci (cocci in pairs)</p>	 <p>Neisseriae (coffee-bean shape in pairs)</p>	 <p>Coccobacilli</p>		 <p>Vibrios (curved rods)</p>	
 <p>Tetrads (cocci in packets of 4)</p>	 <p>Sarcinae (cocci in packets of 8, 16, 32 cells)</p>	 <p>Mycobacteria</p>	 <p>Graules Corynebacteria (palisades arrangement)</p>	 <p>Spirilla</p>	
 <p>Streptococci (cocci in chains)</p>	 <p>Micrococci and staphylococci (large cocci in irregular clusters)</p>	 <p>Spores Spore-forming rods</p>	 <p>Streptomycetes (moldlike, filam- entous bacteria)</p>	 <p>Spirochetes</p>	