**Based on shape these are differentiated into:**

1. Coccus (circle or spherical), may be true sphere (staphylococci), helmat shaped (neumococci) or kidney shaped (Neisseriae). Cocci bacteria can exist singly, in pairs (as diplococci ), in groups of four (as tetrads ), in chains (as streptococci ), in clusters (as stapylococci ), or in cubes consisting of eight cells (as sarcinae). Cocci may be oval, elongated, or flattened on one side. Cocci may remain attached after cell division. These group characteristics are often used to help identify certain cocci. Ex. *Streptococcus pneumoniae,  Neisseria gonorrhoeae,* Streptococcus pyogenes, Aerococcus and Tetragenococcus
2. Bacillus (rod-like) The cylindrical or rod-shaped bacteria are called ‘bacillus’ (plural: bacilli). Most bacilli appear as single rods, Diplobacilli appear in pairs after division, in chain Streptobacilli, CoccobacilliThese are so short and stumpy that they appear ovoid. They look like coccus and bacillus. Ex. Bacillus cereus, Klebsiella rhinoscleromatis, Streptobacillus moniliformis, *Haemophilus influenza,* Corynebacterium diphtheriae
3. spiral (corkscrew-like): Spirilla (or spirillum for a single cell) are curved bacteria which can range from a gently curved, comma-shaped (Vibrio) to a corkscrew-like spiral. Many spirilla are rigid and capable of movement. A special group of spirilla known as spirochetes are long, slender, and flexible.
4. They are comma-shaped bacteria with less than one complete turn or twist in the cell. Ex. Vibrio cholera, *Spirillum winogradskyi, Leptospira* species (Leptospira interrogans), *Treponema pallidum*
5. filamentous(elongated)They are very long thin filament-shaped bacteria. Some of them form branching filaments resulting in a network of filaments called ‘mycelium’. Ex *Candidatus* Savagella
6. Pleomorphic bacteria: These bacteria do not have any characteristic shape unlike all others described above. They can change their shape. In pure cultures, they can be observed to have different shapes. Examples: *Mycoplasma pneumoniae, M. genitalium,*etc.

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