

Topic: Cell Organelles
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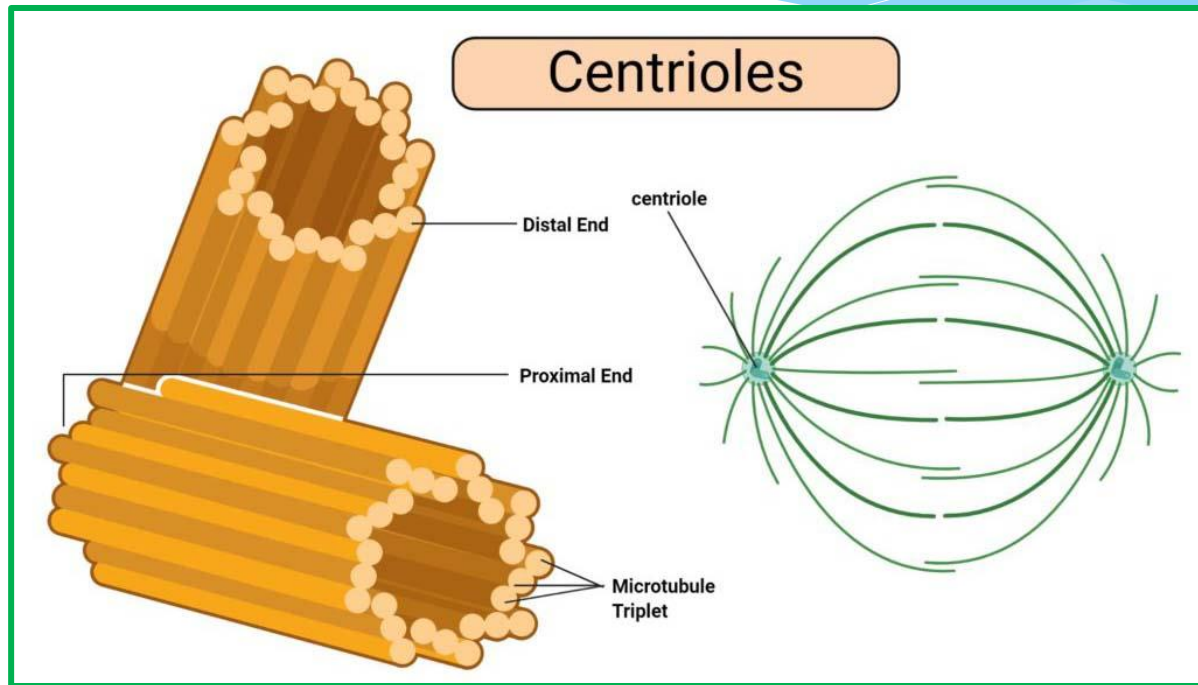
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Centrioles

Centrioles are tubular structures mostly found in eukaryotic cells which are composed mainly of the protein tubulin.

Structure

- A centriole consists of a cylindrical structure made with nine triplets microtubules that surround the periphery of the centriole while the center has a Y-shaped linker and a barrel-like structure that stabilizes the centriole.
- Another structure called cartwheel is present in a centriole which is made up of a central hub with nine spokes/filaments radiating from it.
- Each of these filaments/spokes is connected to the microtubules through a pinhead.



Functions

- During cell division, centrioles have a crucial role in forming spindle fibers which assist the movement of chromatids towards their respective sides.
- They are involved in the formation of cilia and flagella.