

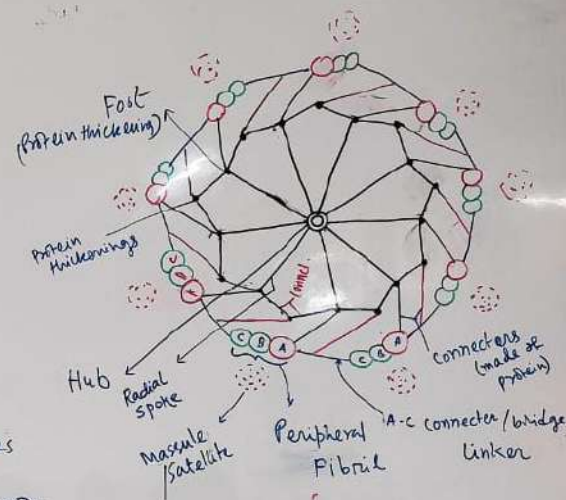
Struc. of centriole

- 1) Non-membranous; Under EM look like a hollow cylinder
- 2) Each centriole is made up of 9 peripheral fibrils/tubules connected to central ring called hub (Protein)
- 3) From the hub 9 radial spoke made up of protein arise each contains a protein thickening at its tip called foot.
- 4) Two adjacent foot are inter-connected triple
- 5) Each peripheral fibril contains 3 microtubules A, B, C; A - complete tubule, 13 microfilaments A & C incomplete;
- 6) A is connected to a nearby foot by protein connector

⑥ Adjacent A and C connected by A-C linker (Protein)

⑦ A-C linker additionally connected to radial spoke connector by means of protein thickening.

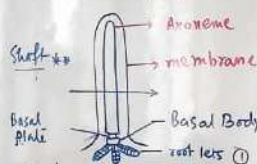
⑧ Surrounding the tubular structure amorphous substances present called satellite/massule/crown.



Funcⁿ of centrosome:

- ① Cilia & Flagella formⁿ → basal body
- ② Spindle apparatus formⁿ during cell div.

Cilia and flagella



- Made up of microtubules
- 9+2 arrangement starts.

- ① Anchorage into cytoplasm
- ② Innermost
- ③ Proteinaceous

- Made up of microtubules
- 9 + 0 arrangement of microtubules - (9 microtubule bundles in circle)
- formed from centrioles

- Shaft: Extends outside cell
 - Membranous sheath [continuous with plasma membrane]
 - Axoneme (central / core part)

If axoneme is cut transversely

- Microtubular
- 9+2 arrangement

Peripheral tubule

Central tubule

