

- Covering the anterior two-thirds of the nucleus is the Acrosome.
- Acrosome is the Product of Golgi Complex and Synthesized & assembled during Spermatogenesis.
- Acrosome Contain hydrolytic enzymes (Chyaluronidase, acid Phosphate/lysosomal enzyme and Poteases - acrosin) which are used to contact & Penetrate the egg at the time of fertilization.

NECK :-

- It is +nt between head and middle piece.
- It Contains the Proximal centriole towards the nucleus which play a role in the First cleavage of Zygote.
- Distal centriole which gives rise to the axial filament of the sperm.

MIDDLE PIECE :-

- It Contain mitochondria arranged in a spiral around the axial filament called mitochondrial spiral.
- It provide energy (ATP) for locomotion of Sperm to the Site of fertilization.

TAIL :-

- In its main piece, the axial filament is surrounded by a thin layer of cytoplasm.

- The part behind the main piece is called end piece.

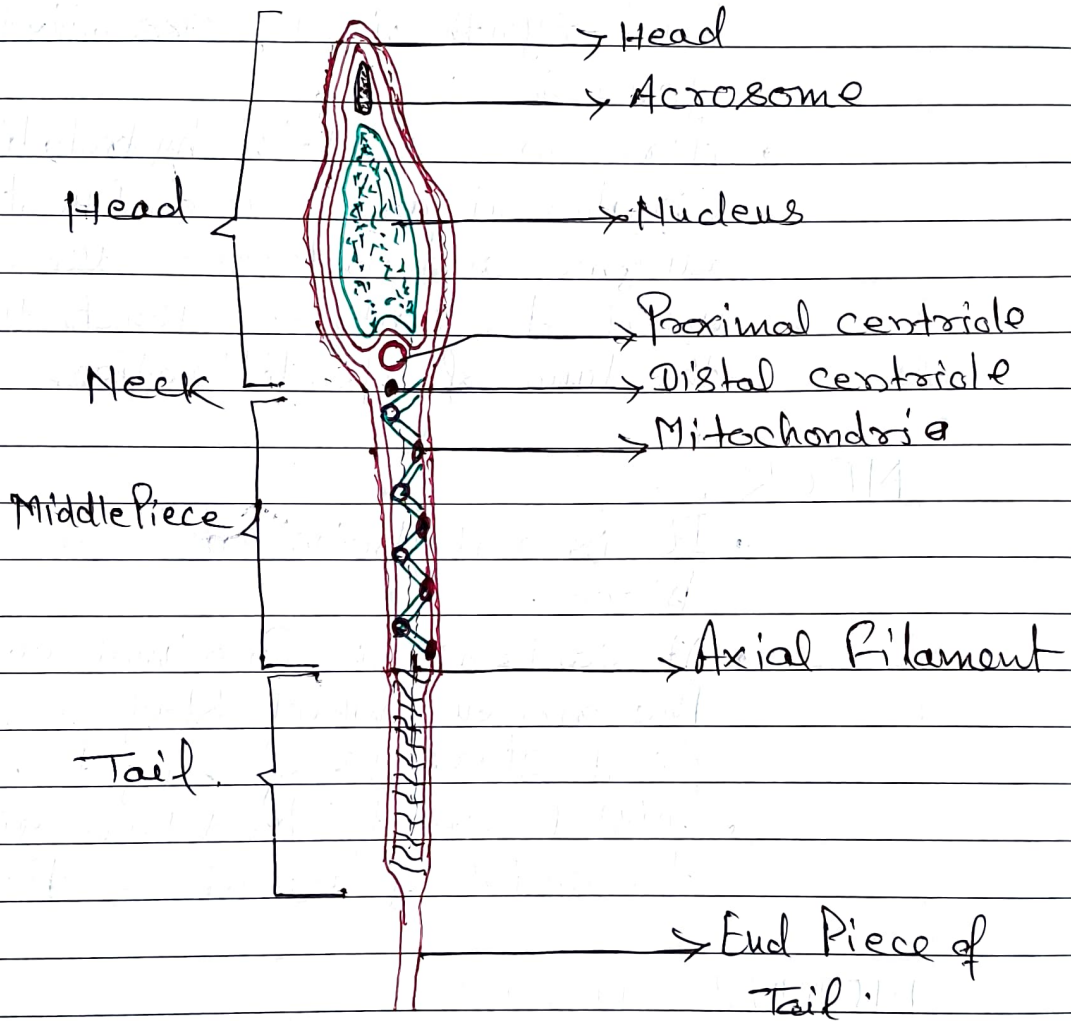


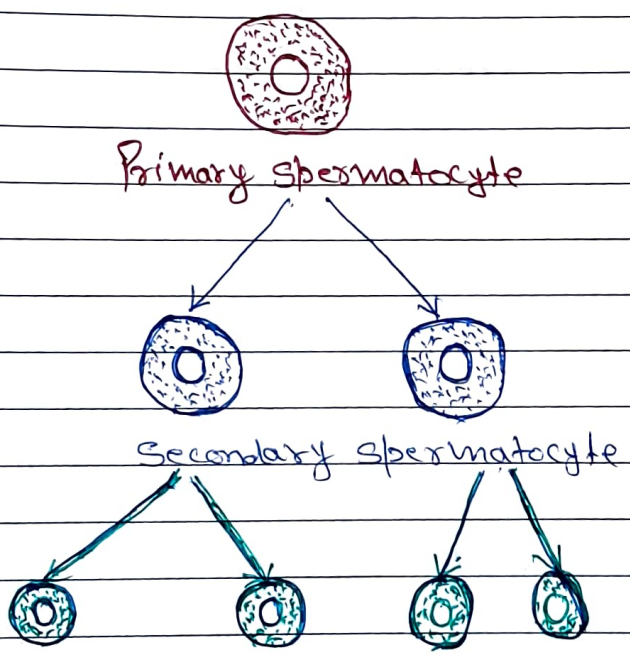
Fig:- Structure of Sperm.

CONCLUSION :-

- Meiosis initiated continuously in a mitotically dividing ~~sperm~~ stem cell Population.
- Four gametes produced per meiosis.
- Meiosis Completed in day or weeks.

- Meiosis and differentiation proceed continuously without cell cycle arrest.
- Differentiation of gamete occurs while haploid, after meiosis ends.
- Sex chromosomes excluded from recombination and transcription during first meiotic prophase.

SPERMATOGENESIS



Meiotic division First

Meiotic division Second

Differentiation

SPERMATIDS

SPERMATOZOA

— X — X —