

The scrotum consists of 4 layers. What are they?

- Scrotal SKIN: houses/has lots of sweat glands + hair
- Tunica Dartos: smooth muscle; can withhold contractions *
- Scrotal fascia: fatty + membranous layers (helps insulation)
- parietal vaginal tunic: 1st peritoneum layer in scrotum

Thermoregulation can occur in multiple ways. Name and explain a few ways.

- Pampiniform Plexus: countercurrent heat exchange; an artery w/ a network of veins
 - Cremaster muscle: "fight or flight" muscle, striated.
 - Tunica dartos: location + surface area *
- Cold = contracted
Hot = relaxed

The parenchyma is composed of the interstitial and the tubule components.

The rete tubules are located within the mediastinum (CT core / elevator) of the testes and transports spermatozoa and fluid from the seminiferous tubules to the efferent ducts.

What is cryptorchidism?

Failure of the testes to descend into the scrotum.

Match the following terms to the definitions:

B Bilateral Cryptorchidism A Unilateral Cryptorchidism

- One testicle is descended from the body. Produces Testosterone. Can produce fertile sperm.
- Both testicles are not descended from the body. Produces Testosterone. Cannot produce viable sperm.

Sertoli cells are....

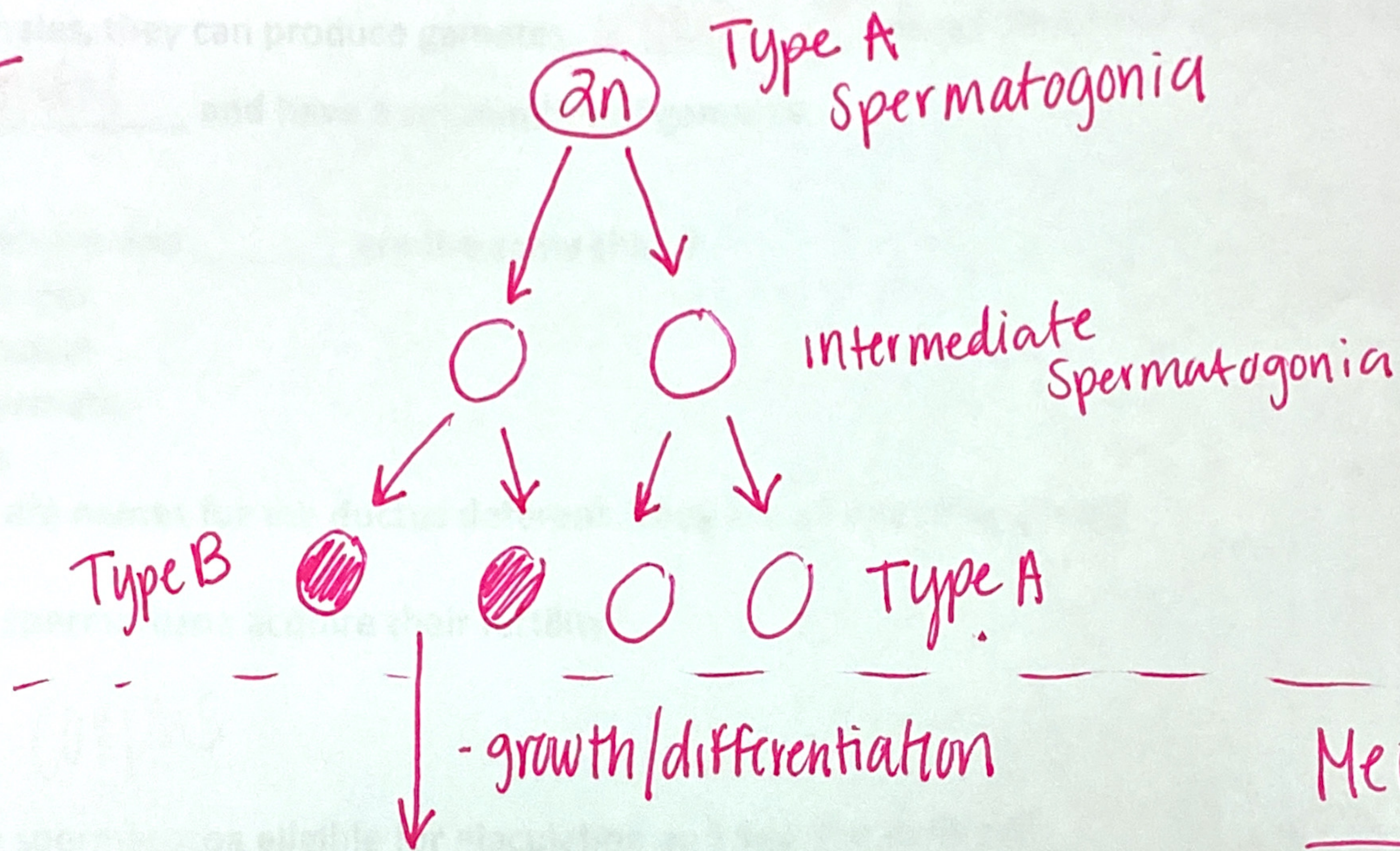
- a. Have FSH and T receptors
- b. Are the only somatic cells in the tubule compartment
- c. "Nurse" cells for spermatogenesis
- d. Form part of the blood testes barrier
- e. All of the above

Leydig cells are...

- a. Produce T
- b. Are within the interstitial compartment
- c. Stimulated by LH
- d. All of the above

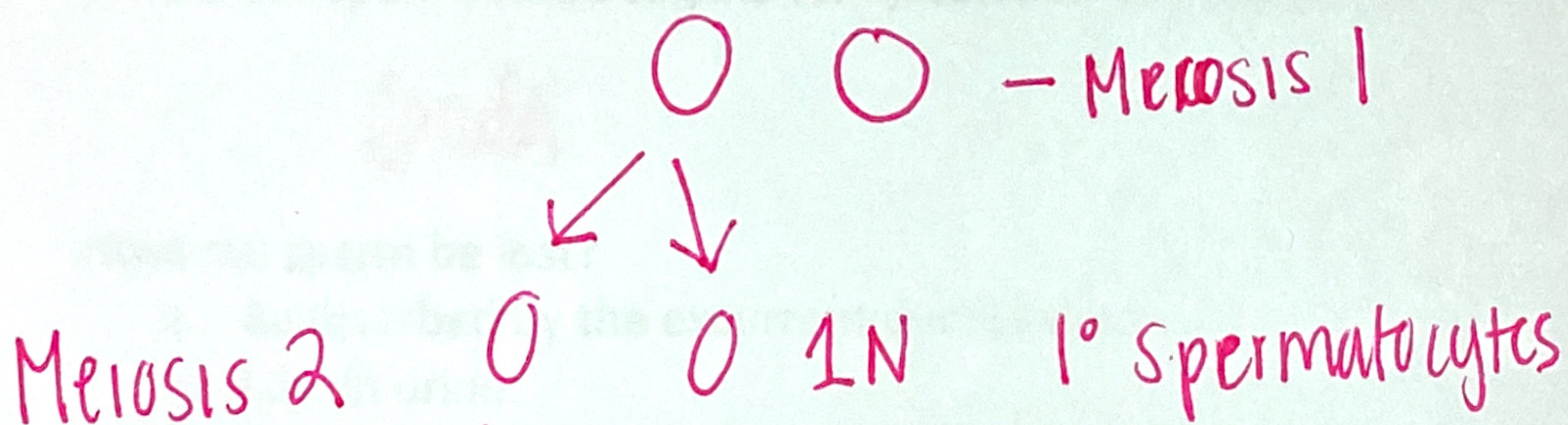
Draw out spermatogenesis:

Proliferation



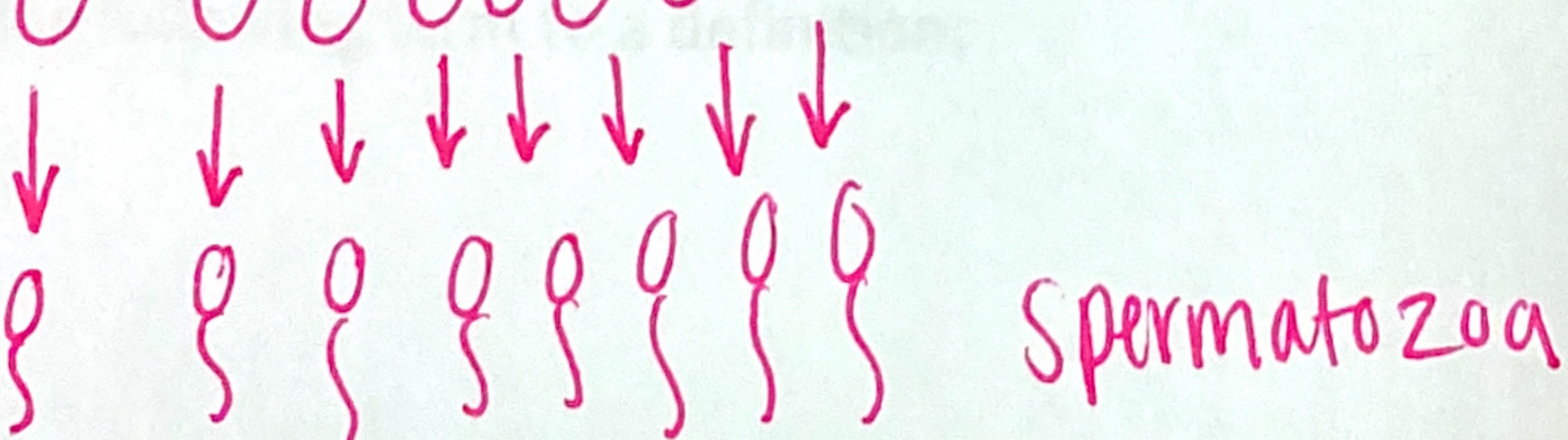
- growth/differentiation

Meiosis



spermatids

Differentiation



• army gear

What are some changes that sperm undergo that are necessary for fertilization to occur?

- Nucleus more condensed + stable
- Migration of cytoplasmic droplet
- Sperm becomes less resistant to cold shock
- ↑ in specific gravity (relative density, lose H_2O)

What are the 4 functions of the epididymis?

- Stored in cauda (sperm)
- transport sperm from Caput to cauda, S.M. contractions, pressure from new sperm
- Maturation of sperm: physical + biochemical changes
- concentration of sperm

As far as males, they can produce gametes postnatal / post pubertal for all of their lives, while females are prenatal and have a set number of gametes.

Ductus deferens and _____ are the same thing?

- a. Efferent
- b. Vascular
- c. Spermatic
- d. Vas
- e. All are names for the ductus deferens. They are all interchangeable.

Where do spermatozoa acquire their fertility?

corpus

Where are spermatozoa eligible for ejaculation and kept for storage?

cauda

How can sperm be lost?

- a. Reabsorbed by the excurrent duct system
- b. Lost in urine
- c. Masturbation
- d. All of the above
- e. None of the above

Match the following term to a definition:

D Testicular capsule A Parenchyma C Mediastinum B Rete Tubules

- a. Seminiferous tubules and interstitial tissue that consists of the interstitial and tubule compartment
- b. Tubules within the mediastinum that transports sperm to the efferent ducts
- c. Central connective tissue core that houses and maintains the integrity of the rete testes
- d. Consists of the visceral vaginal tunic and tunica albuginea

Draw a testis with an epididymis and label:

