

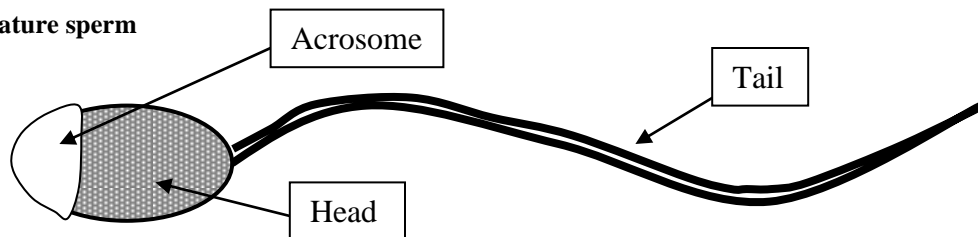
Reproductive System KEY

1. **Functions (be able to identify on diagrams!)**
 - ◆ **Testes: production of sperm**
 - ◆ **Seminiferous tubules:**
 - ◆ **Interstitial cells**
 - ◆ **Epididymus**
 - ◆ **Ductus deferens (vas deferens)**
 - ◆ **Prostate gland**
 - ◆ **Cowper's glands**
 - ◆ **Seminal vesicles:**
 - ◆ **Urethra: Passage of urine out of body & passage of semen out of body.**

2. **path of sperm: interstitial cells → seminiferous tubules → epididymus → vas deferens → (past seminal vesicle) → ejaculatory duct → (past prostate) → urethra → (past Cowper's gland) → along urethra and out of body.**

3. **functions seminal fluid:**
 - ◆ **nourish sperm, provide lubrication, and increase motility of sperm.**

4. **Mature sperm**



5. **Functions of testosterone**
 - ◆ **Necessary for maturation of sperm,**
 - ◆ **Development and function of testes, epididymis, vas deferens, seminal vesicles, prostate gland, urethra, Cowper's gland, & penis.**
 - ◆ **Development of secondary sex characteristics in males at puberty (deepening of voice (larynx growth), beard, underarm hair, pubic hair)**

6. **Endocrine control of testosterone**
 - ◆ **Hypothalamus secretes GnRh (gonadotropic releasing hormone)...**
 - ◆ **...which stimulates anterior pituitary gland to secrete both follicle stimulating hormone (FSH) and luteinizing hormone (LH)...**
 - ◆ **FSH stimulates spermatogenesis.**
 - ◆ **LH stimulates production of testosterone in testes.**

7. **Functions (be able to identify on diagrams!)**
 - ◆ **Ovaries: female gonads (have the eggs in them)**
 - ◆ **Follicles: In the ovaries. Contain developing eggs.**
 - ◆ **Corpus luteum: After egg released (ovulation) the leftovers of the follicle develop into this.**
 - ◆ **Uterus: Thick-walled, muscular organ, which holds the fetus.**
 - ◆ **Cervix: The base of the uterus.**
 - ◆ **Vagina: Birth canal. Also site of sperm deposition during intercourse.**
 - ◆ **Clitoris: Part of female reproductive system having many nerve endings.**

8. **Functions of estrogen**
 - ◆ **Help build up uterine wall and make it vascular (blood vessels) and glandular (having glands).**
 - ◆ **Development of secondary sex characteristics in females at puberty. (Pelvic girdle [bones] widen → wider hips, breast development, underarm & pubic hair)**

9. **Ovarian & uterine cycle**
 - ◆ **Ovarian cycle: (cycle that ovaries go through every 28 days or so) FSH causes follicle to grow and mature. When mature it bursts (ovulation) and egg is released into fallopian tube. Empty follicle becomes corpus luteum as LH acts on it.**
 - ◆ **Uterine cycle: (cycle that uterus undergoes) Estrogen causes endometrium (lining of uterus) to thicken and grow blood vessels and glands. Progesterone causes endometrium to DOUBLE in thickness as well as to begin producing mucous (in the glands).**

10. **a) Hormones involved in control of cycles**
 - ◆ **Follicle stimulating hormone (FSH)**
 - ◆ **Luteinizing hormone (LH)**
 - ◆ **Estrogen**
 - ◆ **Progesterone**

10. b) Diagram HOW these hormones control these cycles
- ◆ Be able to reproduce/explain diagram of hypothalamus/pituitary control.
 - ◆ Be able to reproduce/explain GRAPHS of hormone levels.
11. Positive feedback mechanism involving oxytocin
- ◆ Oxytocin is a hormone, which stimulates the uterus to contract during childbirth. Oxytocin causes uterine contractions...which cause more oxytocin to be secreted...which causes uterine contractions...which causes.....
12. Hormonal changes as result of implantation.
- ◆ Egg normally fertilized in fallopian tubes as it travels to uterus. Once embryo reaches uterus, wherever it touches the uterine wall, it implants and begins development. Placenta produces human chorionic gonadotropin (HCG) and prevents corpus luteum from disintegrating. The corpus luteum keeps producing progesterone and estrogen until placenta begins producing them on its own. Progesterone and estrogen shut down the anterior pituitary so that no new follicles mature, and also so the uterine lining is maintained. No menstruation during pregnancy.