# Reproductive & Endocrine Systems

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# Female Reproductive System

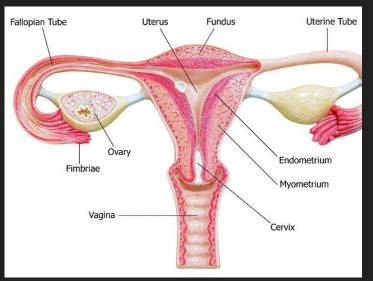
**<u>Vagina</u>**: The muscular tube leading from the external genitals to the cervix

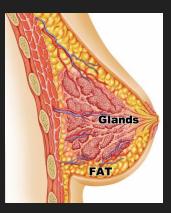
**Ovaries**: Reproductive gland in which the female reproductive cells are produced (eggs)

**<u>Uterus</u>**: The organ in the lower body of a woman or female mammal where offspring are conceived and in which they gestate before birth

**Menstruation Cycle**: The process of ovulation and menstruation in women

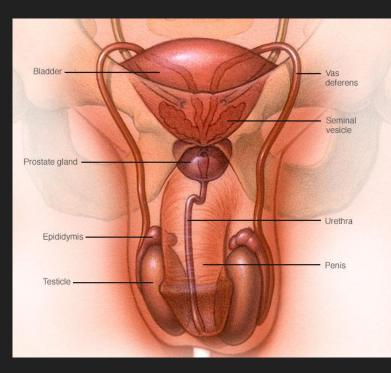
**Fallopian Tube:** Either of a pair of tubes along which eggs travel from the ovaries to the uterus





# Male Reproductive System

Penis - Male sex organ and conduit for urine and semen
Urethra - The tube that carries semen and urine to the penis
Seminal Vesicle - Gland that mixes fluid with sperm
Prostate - A gland that nourishes sperm and ejects it
Vas Deferens - The tube that transfers sperm to the urethra
Epidermis - A long tube that stores and transports sperm
Testicles - Produces sperm and testosterone



### Reproductive system

Male:

1. Create Sperm

#### Female

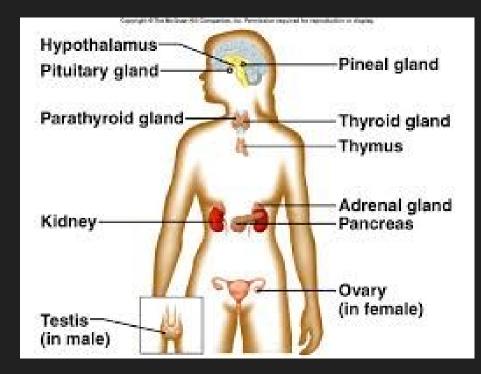
- 1. Create Eggs
- 2. Protect and nourish baby until birth



# The Endocrine System

• Made up of glands that release hormones into the bloodstream

• Endocrine glands release their secretions through ducts such as sweat, tears and digestive juices

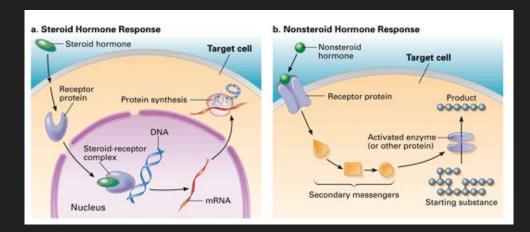


#### Steroid Hormones vs. Nonsteroid Hormones

Two groups of hormones: Steroid and nonsteroid hormones

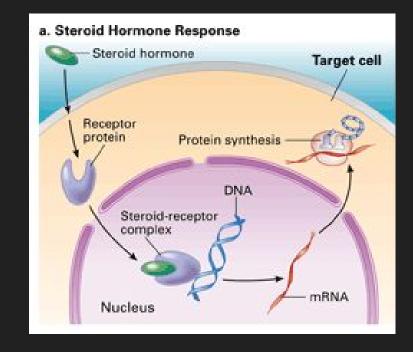
Steroid hormones produced by: The Lipid Cholesterol

Nonsteroid hormones have proteins, small peptides, and modified amino acids



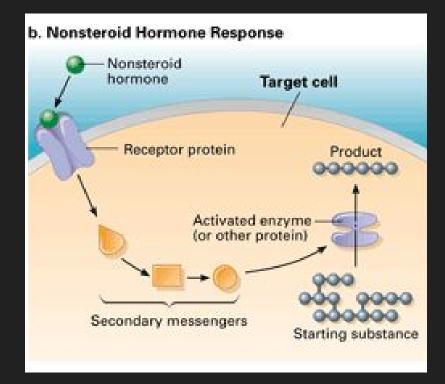
# **Steroid Hormones**

- Crosses cell membrane to enter cell
- Binds to steroid receptor protein forming a hormone-receptor complex
- Hormone-receptor complex enters nucleus and binds with a DNA control sequence
- This binding initiates transcription of specific genes to messenger RNA(mRNA)
- mRNA moves into cytoplasm & directs protein synthesis



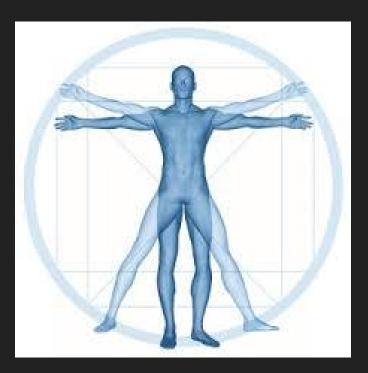
# Nonsteroid Hormones

- Binds to receptor on cell membrane
- Binding hormones activate enzyme on inner surface of membrane
- Enzyme activates secondary messengers that carry messages of hormone inside cell
- Secondary messengers activate wide range of other cell activities



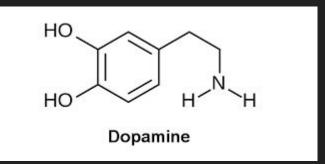
# Control of the endocrine system

• Regulated by feedback mechanism to maintain homeostasis

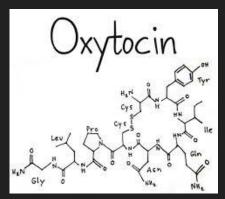


# Work Together?!

- 1) Orgasm leads to hormones released in the head to make you happy
  - a) Dopamine
  - b) Oxytocin
- 2) A Male Erection is caused by
  - a) Prostaglandins







#### You are so sweet for listening!!!!!

