Chapter 10: Reproductive Behavior

Sexual Development

Hormonal Control of Sexual Behavior

Neural Control of Sexual Behavior

Pair Bonding and Parental Behavior

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Sexual Development

The Roles of Genes.

- anatomical sex: physical characteristics
- chromosomal sex = XX or XY
- gonadal sex: presence of testes or ovaries
- gender role = typical dimorphic sets of behaviors
- gender identity = sense of belonging to male or female sex
- sexual orientation = attraction to same or opposite sex, or both
- gender identity can be distinct from sexual orientation

Sexual Development

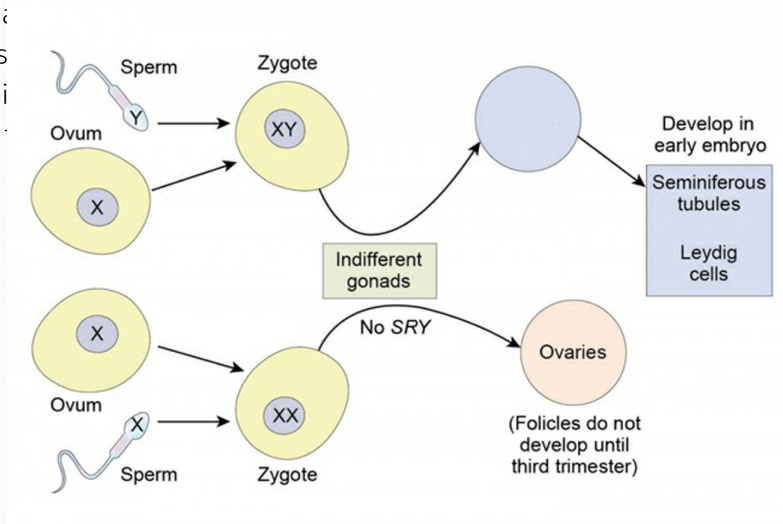
The Roles of Genes.

- some sex differences arise from genes
- others from expression of genes on the

Sexual Development

Development of the Sex Organs - Gonads.

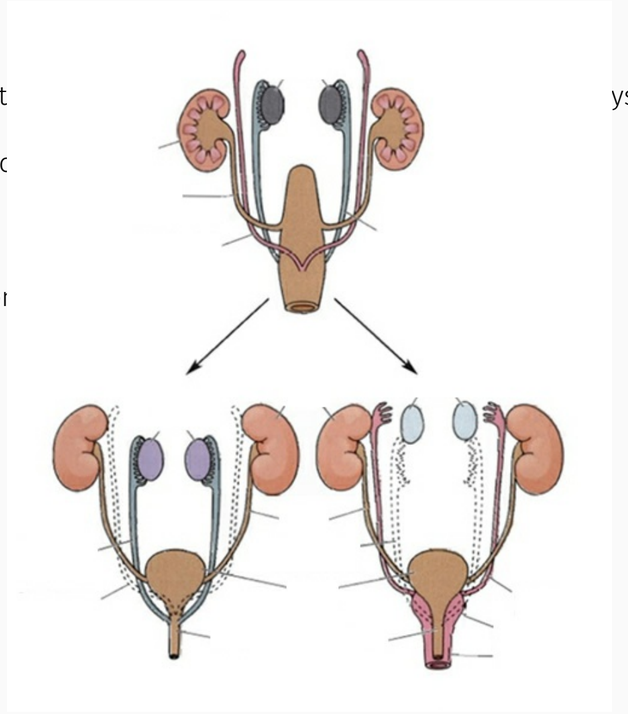
- until end of first trimester, undifferentia
- male: SRY induces differentiation to tes
- secrete testosterone and Müllerian Inhi
- female: default pattern, differentiation



Sexual Development

Development of the Sex Organs - Internal Ducts.

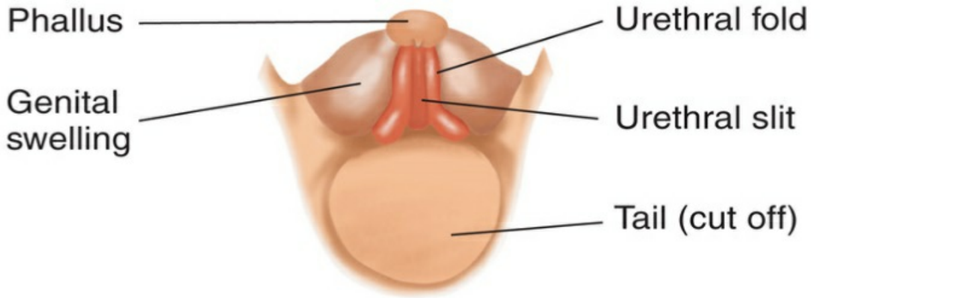
- 2 sets of ducts
- Male:
  - testosterone induces Wollfian duct ystem
- MIH actively breaks down Müllerian duc
- Female:
- default pattern, Müllerian ducts differe



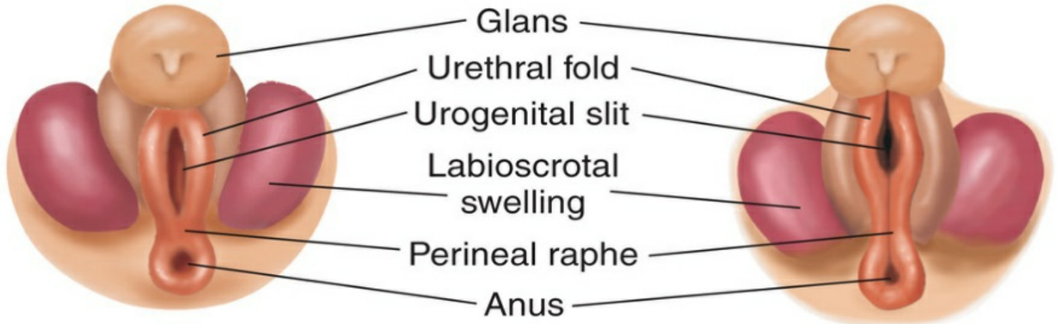
Sexual Development

Development of the Sex Organs - External Genitalia.

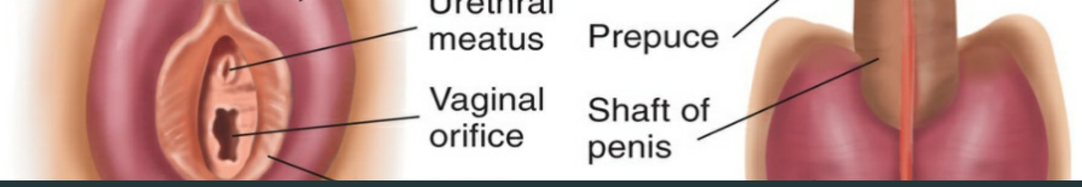
- 1 pluripotential anlage for external orga
- male:
- dihydrotestosterone induces pluripoter
- female:
- default pattern, pluripotential genitalia



Indifferent Stage



Seventh to Eighth Week



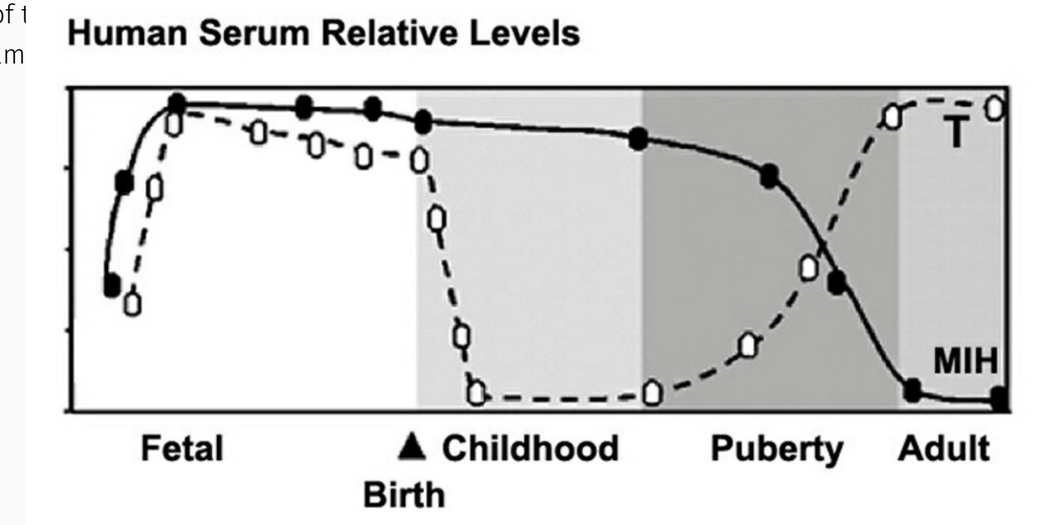
Sexual Development

Sexual Differentiation.

Sexual Development

Sexual Differentiation.

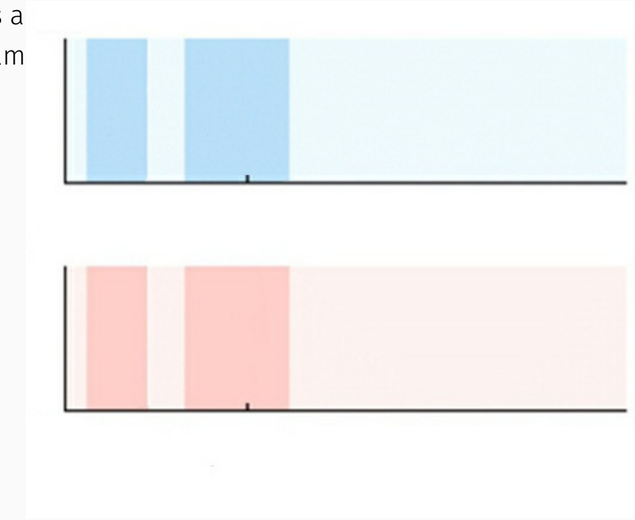
- masculinization and defeminization of t
- female follows default genetic program



Sexual Development

Sexual Differentiation.

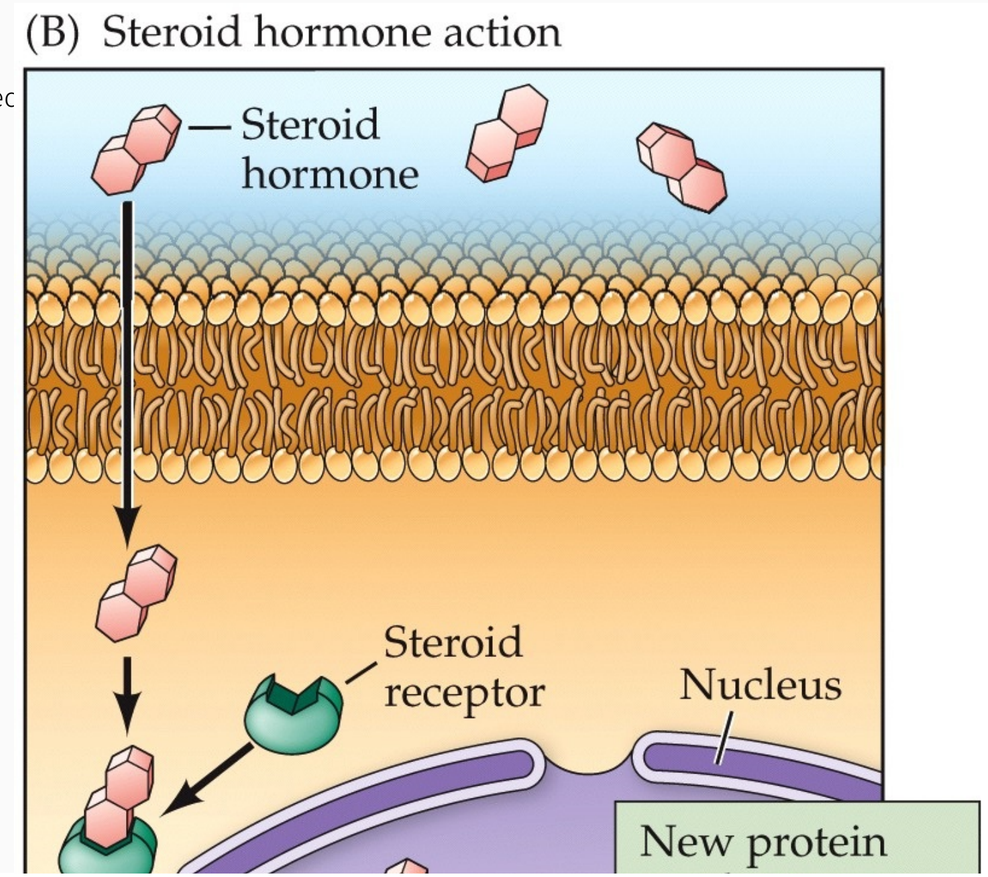
- masculinization of brain mechanisms a
- female follows default genetic program



Sexual Development

Gonadal and Adrenal Hormones.

- steroids, derived from cholesterol
- lipophillic
- actions mostly through intracellular rec

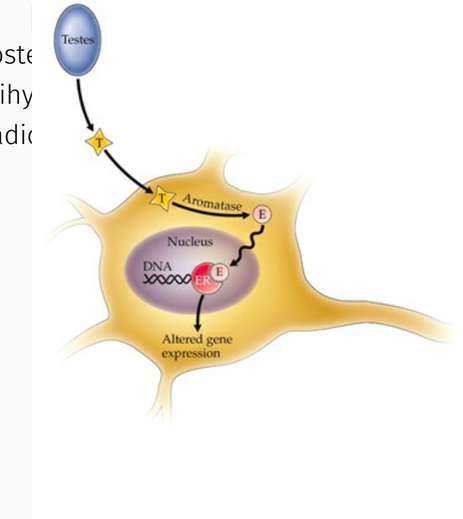


***BIOLOGICAL PSYCHOLOGY 7e*, Figure 5.8 (Part 2)**

Sexual Development

Gonadal and Adrenal Hormones.

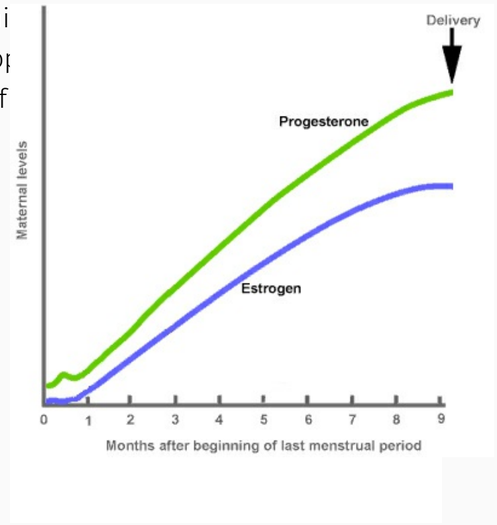
- testosterone (androgen)
- some effects mediated through testoste
- some effects mediated through 5f -dihy
- some effects mediated through estradi



Sexual Development

Gonadal and Adrenal Hormones.

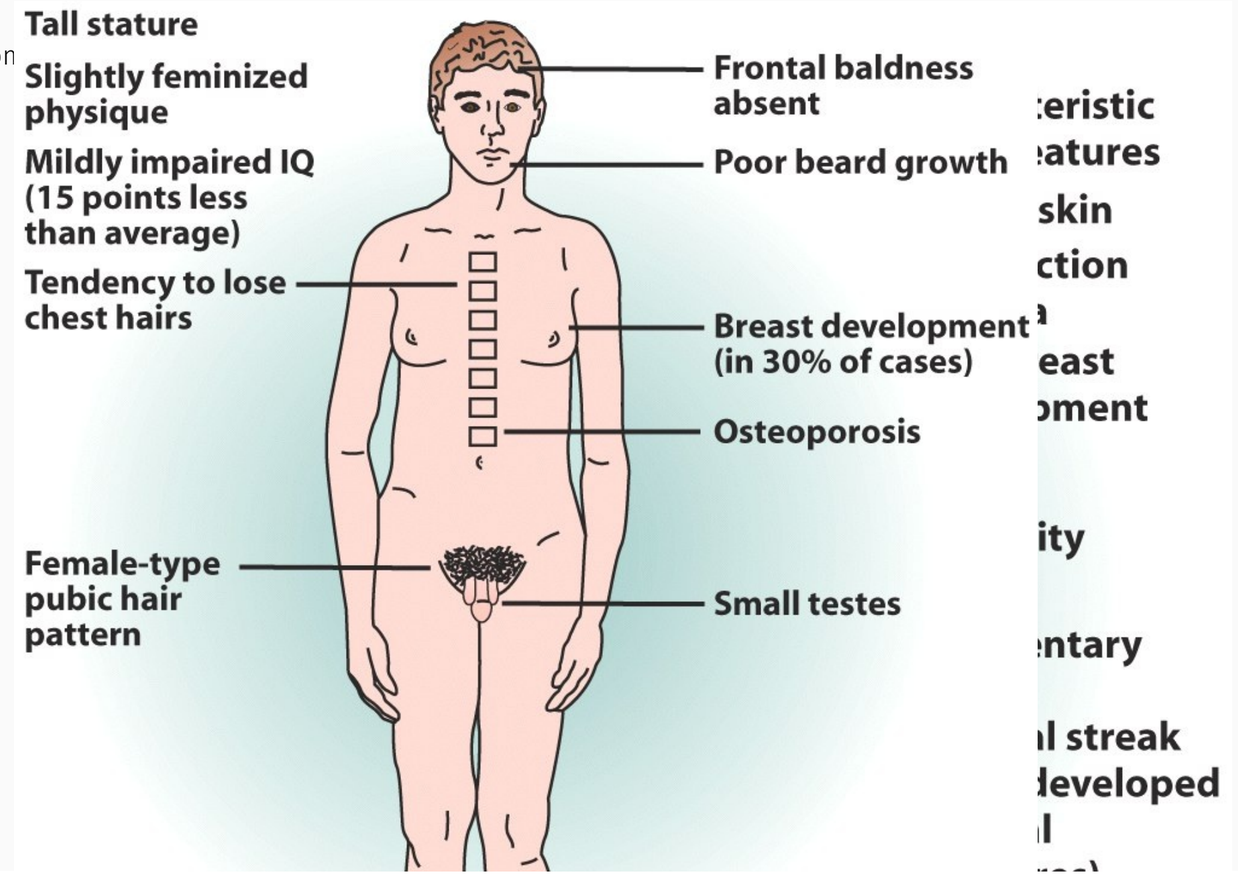
- so, why aren't female fetuses masculini
- extracellular estradiol bound by f -feto
- extracellular androgens not bound by f

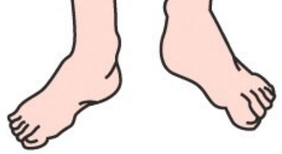


Sexual Development

Masculinization and Defeminization.

- meiotic nondisjunction
- Turner, Klinefelter, and Triple X syndron





Sexual Development

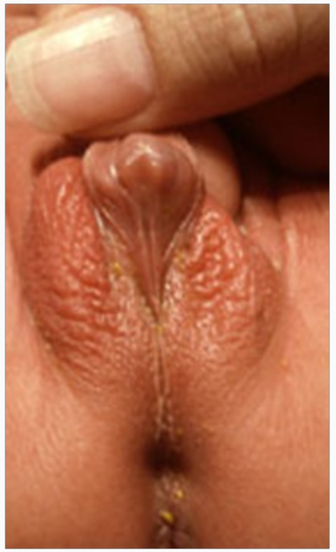
Masculinization and Defeminization.

- Complete Androgen Insensitivity Syndro
- XY; testes
- non-functioning androgen receptor
- feminized physical appearance and bra
- gender identity = female
- sexual partner preference = male

Sexual Development

Masculinization and Defeminization.

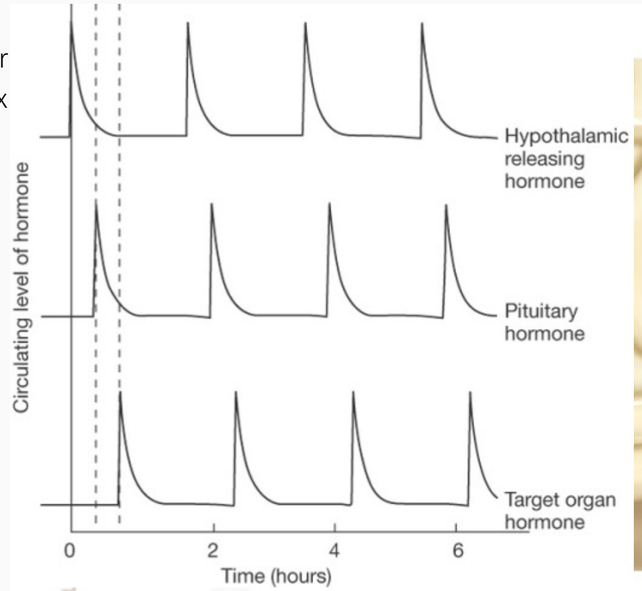
- Congenital Adrenal Hyperplasia (CAH)
- XX; ovaries
- defect in glucocorticoid (cortisol) synth
- excess androstenedione
- variable degrees of masculinization
- gender identity = female or male
- sexual partner preference = female or r

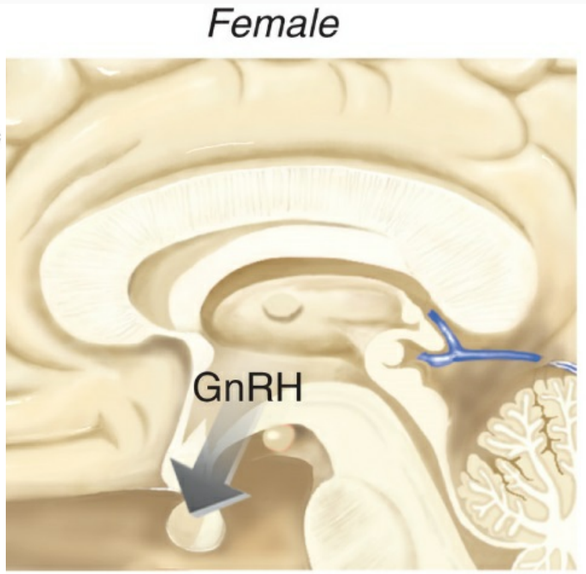


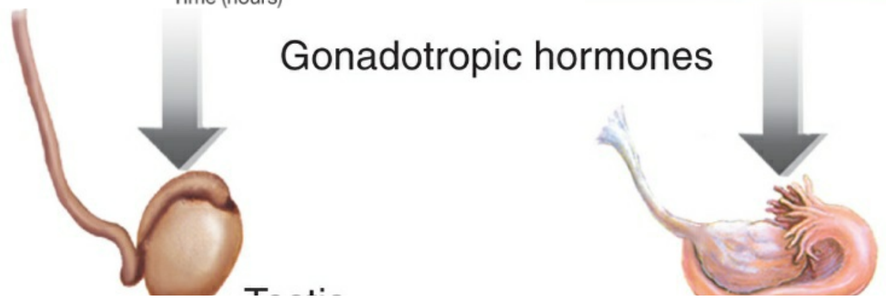
Sexual Development

Sexual Maturation - Puberty.

- hypothalamic surges of GnRH and CRH
- stimulates FSH, LH, ACTH → steroid hor
- androgens/estrogens → secondary sex
- gonadal steroids (T, DHT, P, E)
- adrenal steroids (androstenedione)







Testosterone

Estradiol

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