

Precocious Puberty

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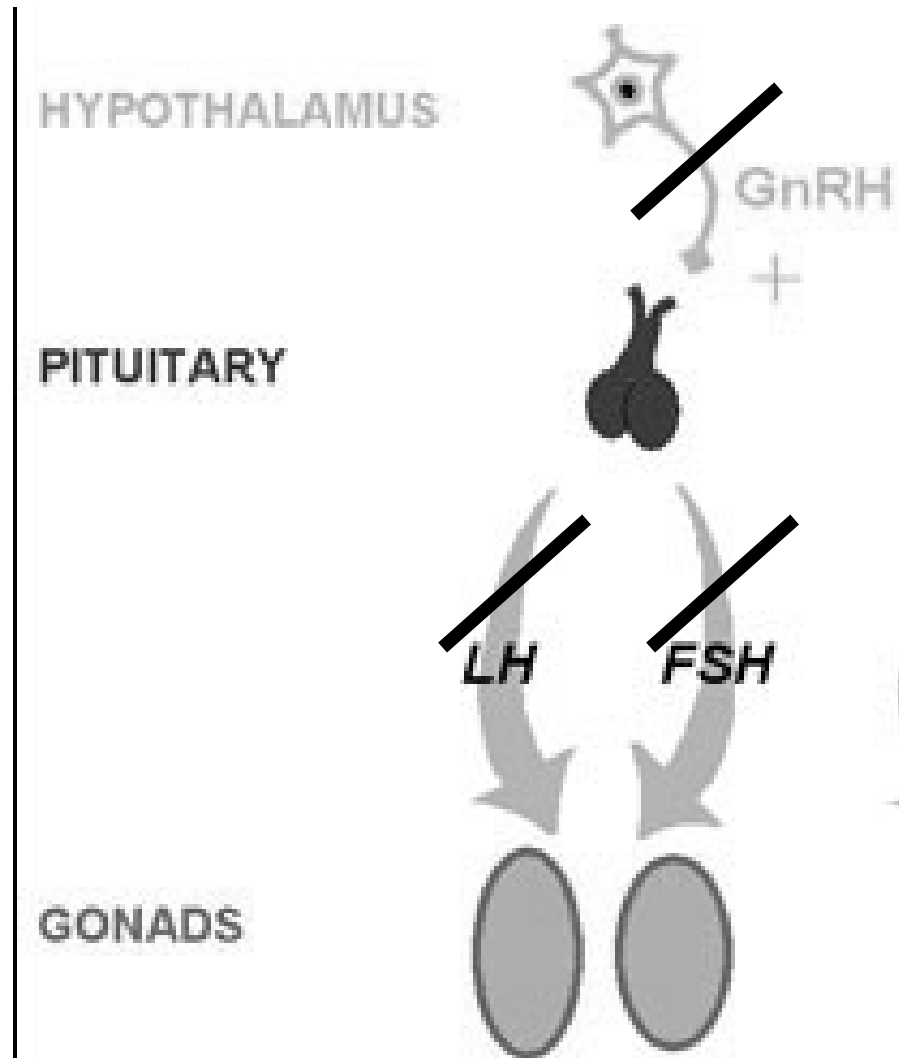
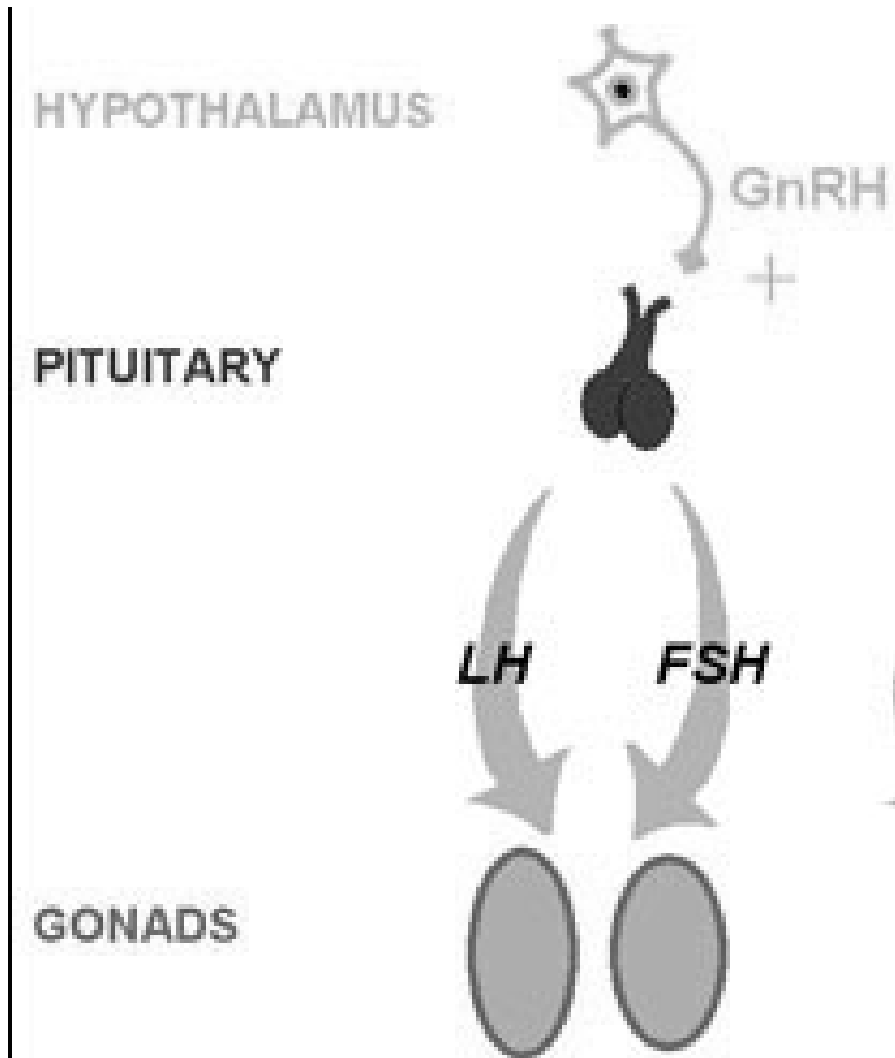
Precocious Puberty

Definition

- **Boys: 9 years**
- **Girls: 6-8 years**

Precocious Puberty

Central versus Peripheral



Precocious Puberty

Peripheral

- **Congenital**
- **Acquired**

Precocious Puberty

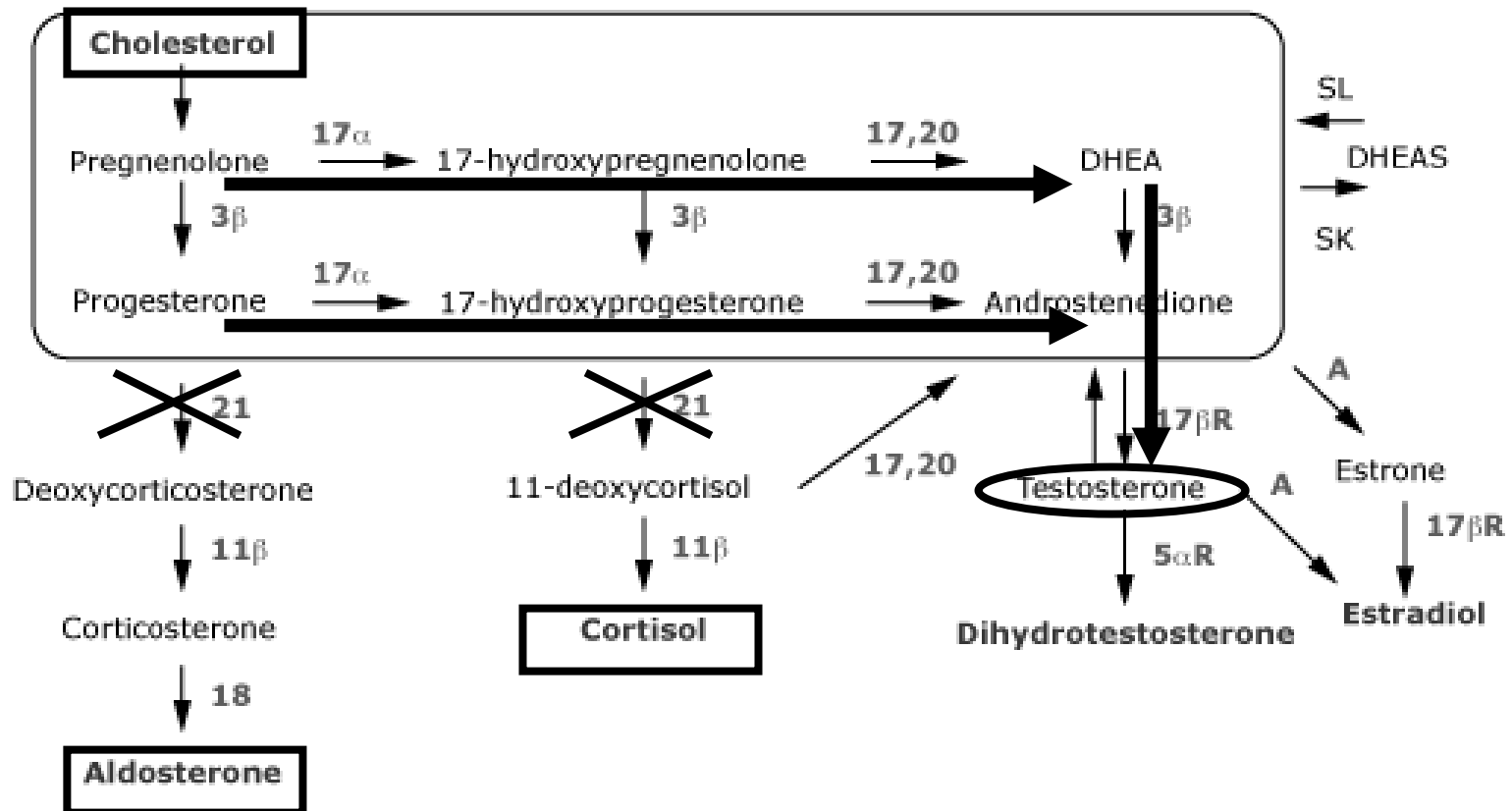
Peripheral: Congenital

- **Congenital Adrenal Hyperplasia (CAH)**
- **McCune-Albright Syndrome (MAS)**
- **Familial Male Precocious Puberty (FMPP)**

Precocious Puberty

Peripheral: Congenital

Congenital Adrenal Hyperplasia (CAH)



Precocious Puberty

Peripheral: Congenital

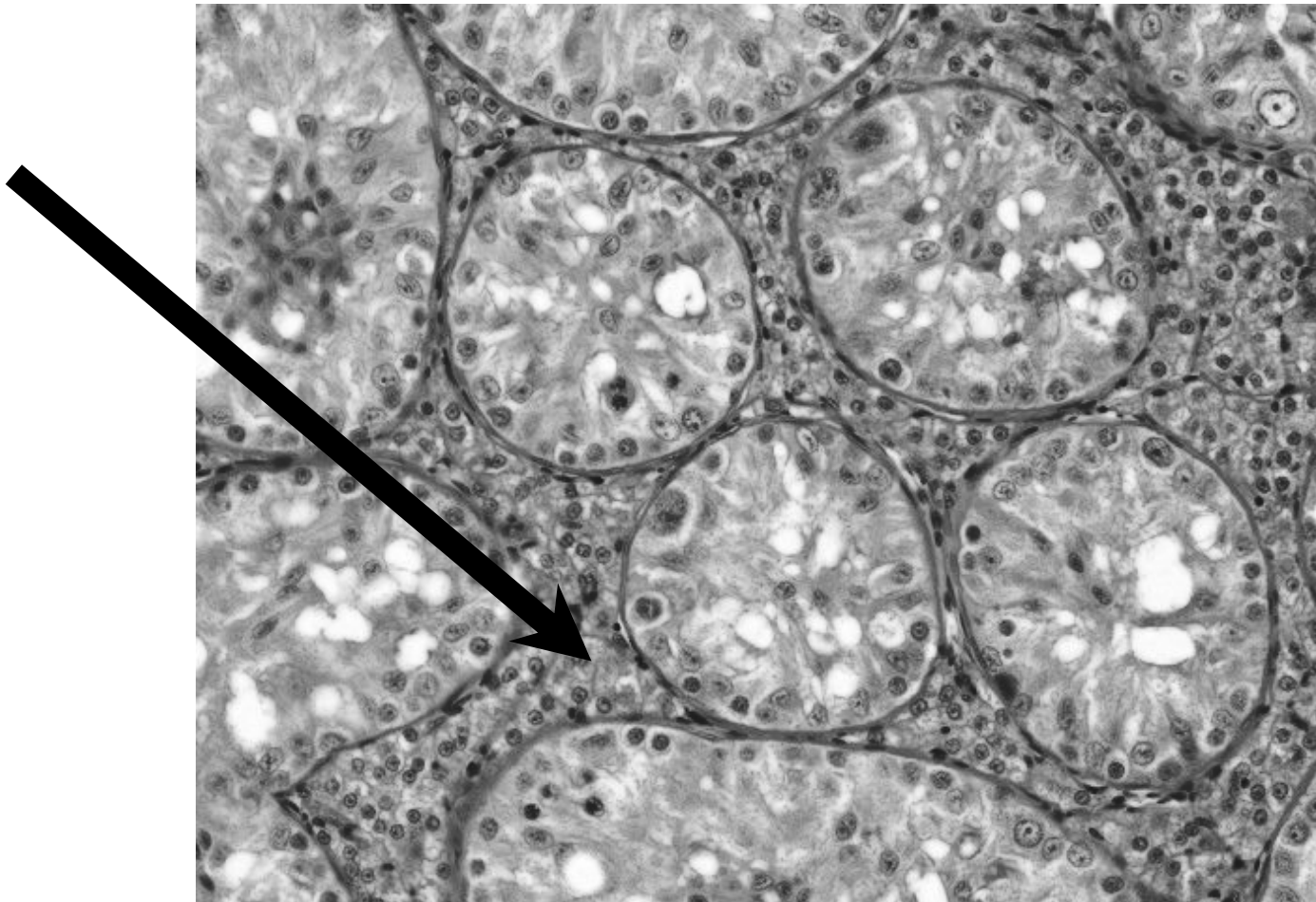
McCune-Albright Syndrome (MAS)

- **Fibrous dysplasia of the bone**
- **Café-au-lait spots**
- **Hyperfunction of endocrine tissues**

Precocious Puberty

Peripheral: Congenital

Familial Male Precocious Puberty (FMPP)



Precocious Puberty

Peripheral: Acquired

Exposure to sex steroids:

- **endogenous**
- **exogenous**

Precocious Puberty

Peripheral: Acquired
Endogenous Sex Steroids

- **sex steroid-secreting tumors**
 - **ovary**
 - **testis**
 - **adrenal**
- **germ cell tumors**

Precocious Puberty

Peripheral: Acquired

Exogenous Sex Steroids

estrogens ----- androgens

- **accidental ingestion**
 - oral contraceptives
 - anabolic steroids
- **skin-to-skin transmission**
 - topical preparations (such as testosterone gel or estrogen cream)
 - hair products
 - lavender and tea tree oil

Precocious Puberty

Presentation: History

- **general medical history**
- **family history**
- **medications – intended and
inadvertent**
- **onset and progression**

Precocious Puberty

Presentation: Physical Exam

- **pubic hair, axillary hair, acne, oily skin/hair**
- **phallic length and width**
- **testicular volume**
- **breast development**
- **clitoromegaly, labial fusion**

Precocious Puberty

Presentation: Testing

- **bone age**
- **imaging – pituitary MRI, testicular ultrasound, adrenal ultrasound**
- **bloodwork – pituitary hormones (LH and FSH), sex steroids, hCG and AFP**

Precocious Puberty

Short-Term Issues

- **psychosocial**
- **behavioral**

Precocious Puberty

Long-Term Issues

- **physical deformity**
- **short stature**

Precocious Puberty

Reference

**Eugster E: Peripheral
Precocious Puberty: Causes and
Current Management. Hormone
Research 2009;71:64-67.**