



DEFINITION: PUBERTY

Developmental process leading to reproductive maturity & fertility. Characterized by:

- Secondary sexual characteristics
- Growth spurt
- Psychological, cognitive, social changes

ONSET OF PUBERTY

Girls: breast development

- ☐ Palpate to distinguish breast from adipose tissue

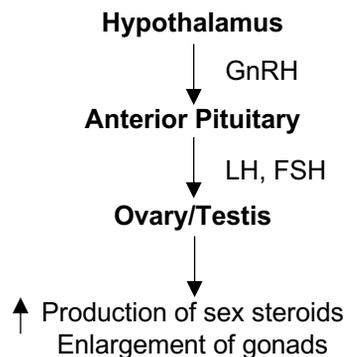
Boys: testicular enlargement

- ☐ Palpate to estimate size
- ☐ Testicular volume $\geq 3.0\text{mL}$, or length $\geq 2.5\text{cm}$

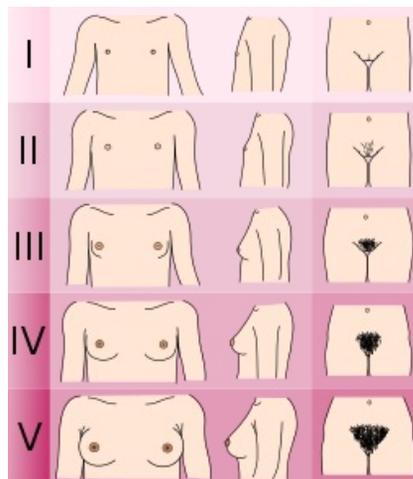
PRESENTATION

GIRLS	BOYS
<p>Average age at onset: 10.5 yrs (range 8-13)</p> <p>Order</p> <ol style="list-style-type: none"> Thelarche <ul style="list-style-type: none"> ▪ Breast development Pubic hair <ul style="list-style-type: none"> ▪ Body odour & mild acne often present Growth spurt (2-3 yrs) <ul style="list-style-type: none"> ▪ Earlier in girls ▪ Between SMR stage 2-3 ▪ Peak height velocity: 6-10cm/yr Menarche <ul style="list-style-type: none"> ▪ 2-2.5 yrs after pubertal onset ▪ Average age: 12-12.5 yrs ▪ May be irregular due to anovulatory cycles for first few years 	<p>Average age at onset: 11 yrs (range 9-14)</p> <p>Order</p> <ol style="list-style-type: none"> Testicular enlargement Pubic hair <ul style="list-style-type: none"> ▪ Penile length increases, body odour, mild acne too Growth spurt (2-3 yrs) <ul style="list-style-type: none"> ▪ Between SMR stage 3-4 ▪ Peak height velocity: 5-11cm/yr Voice change <ul style="list-style-type: none"> ▪ Between SMR stage 4-5 <p>Other: ~50% may experience pubertal gynecomastia, which resolves within 2 yrs</p>

PHYSIOLOGY



SEXUAL MATURITY RATING (SMR) AKA. TANNER STAGING



I		3	≤2.5
II		4	2.5-3.2
III		10	3.6
IV		16	4.1-4.5
V		25	>4.5