

# Sitthvað um Kynþroska

**Kolbeinn Guðmundsson**  
**Barnalæknir**

November 2013

# Yfirlit

- Inngangur
- Breytileiki
- Sérstakur vandi ættleiddra barna??
- Mögulegar aðgerðir

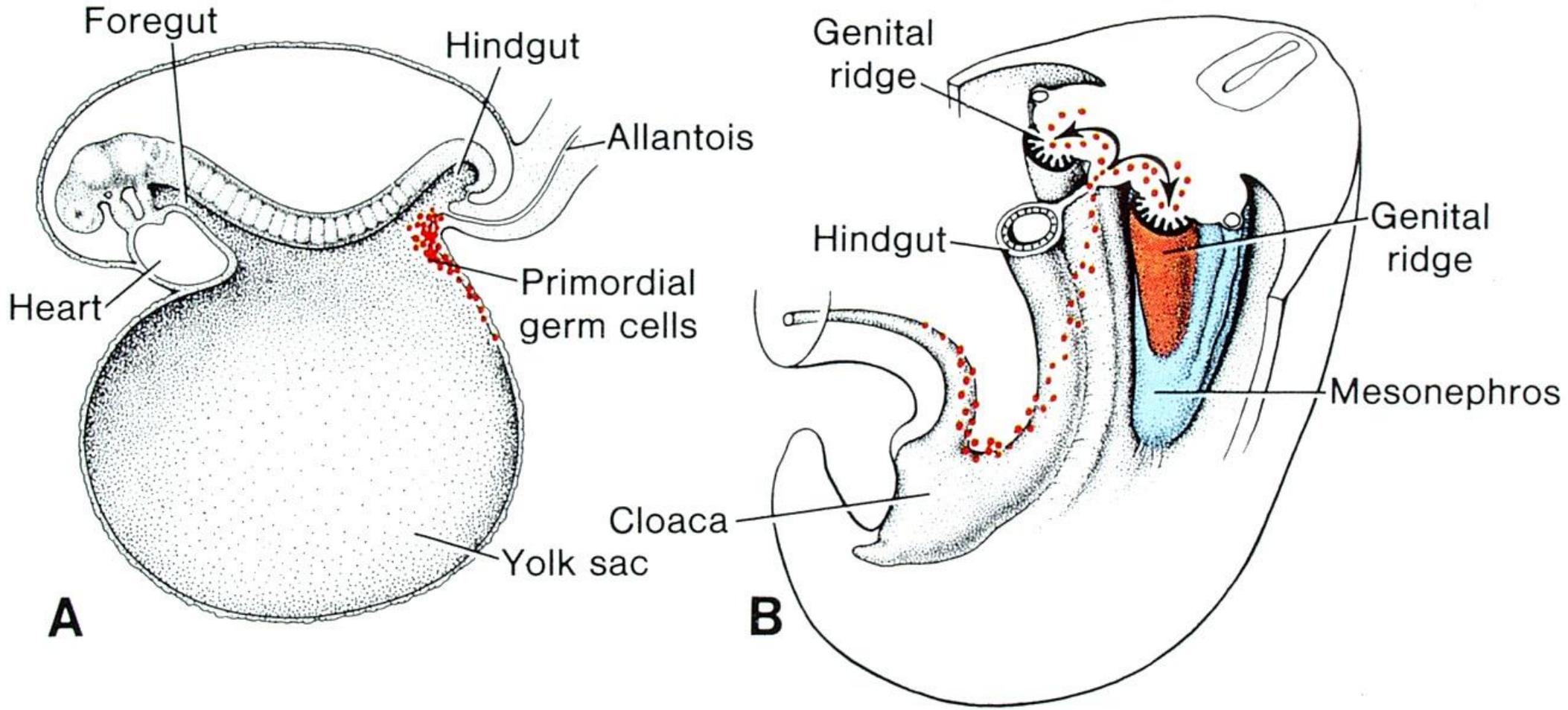


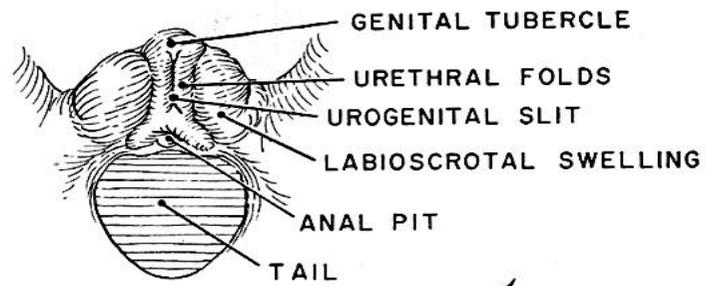
**"Puberty"**



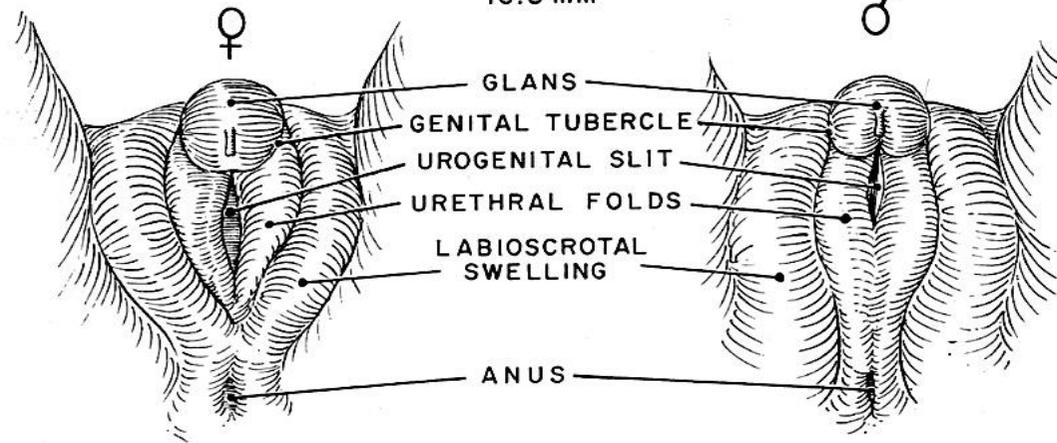
**E. Munch**

# 3 vikna fóstur



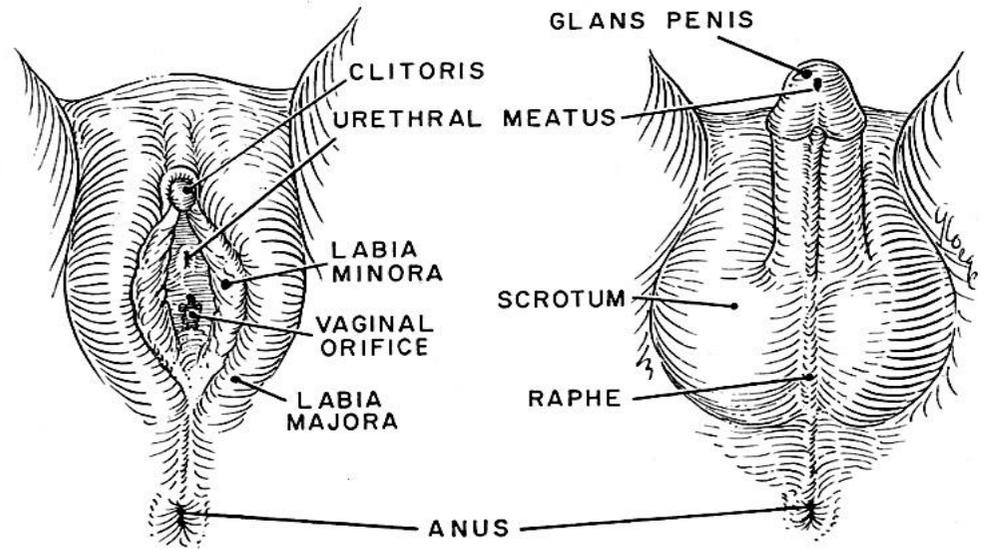


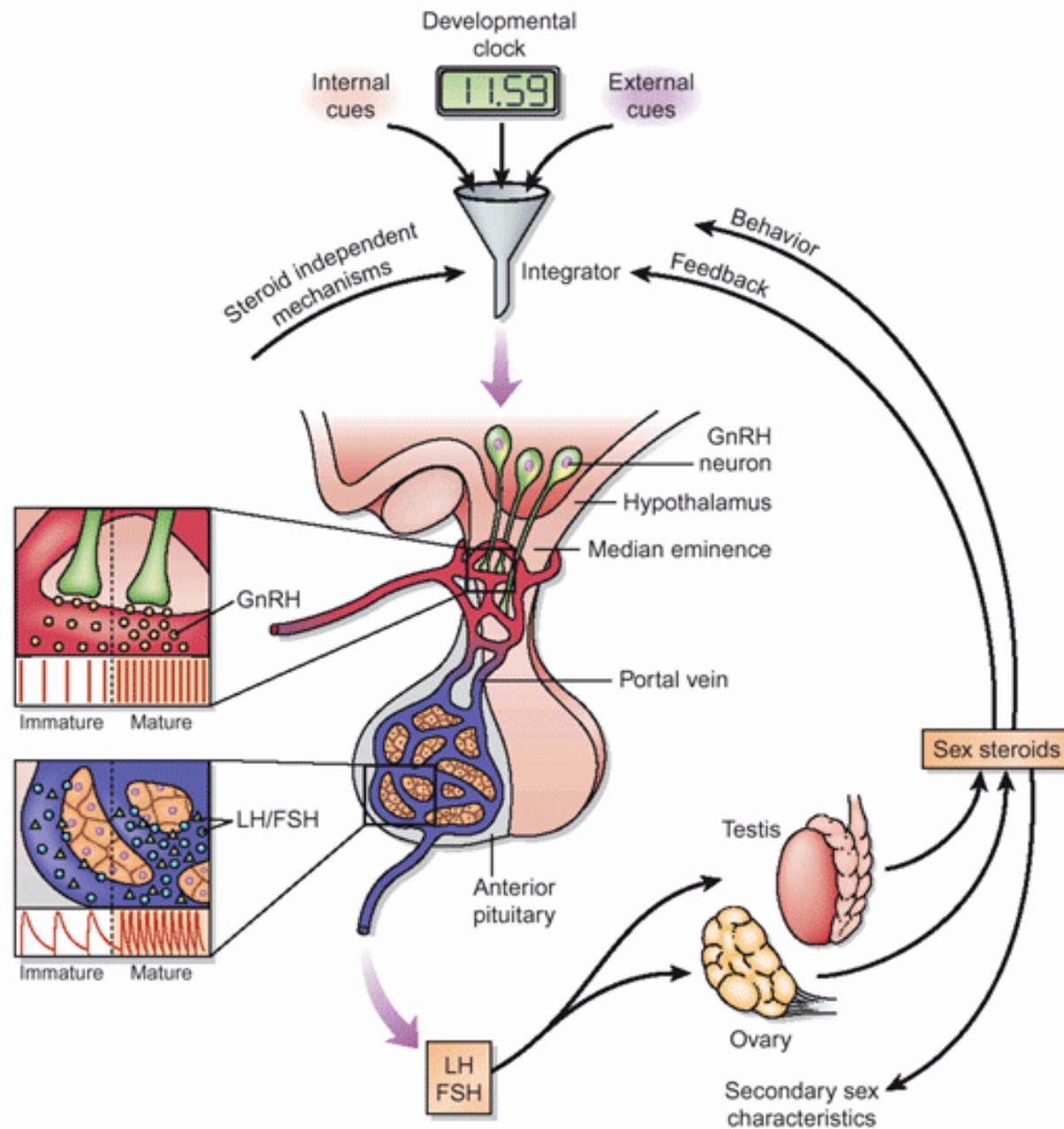
16.8 mm



49.0 mm

45.0 mm





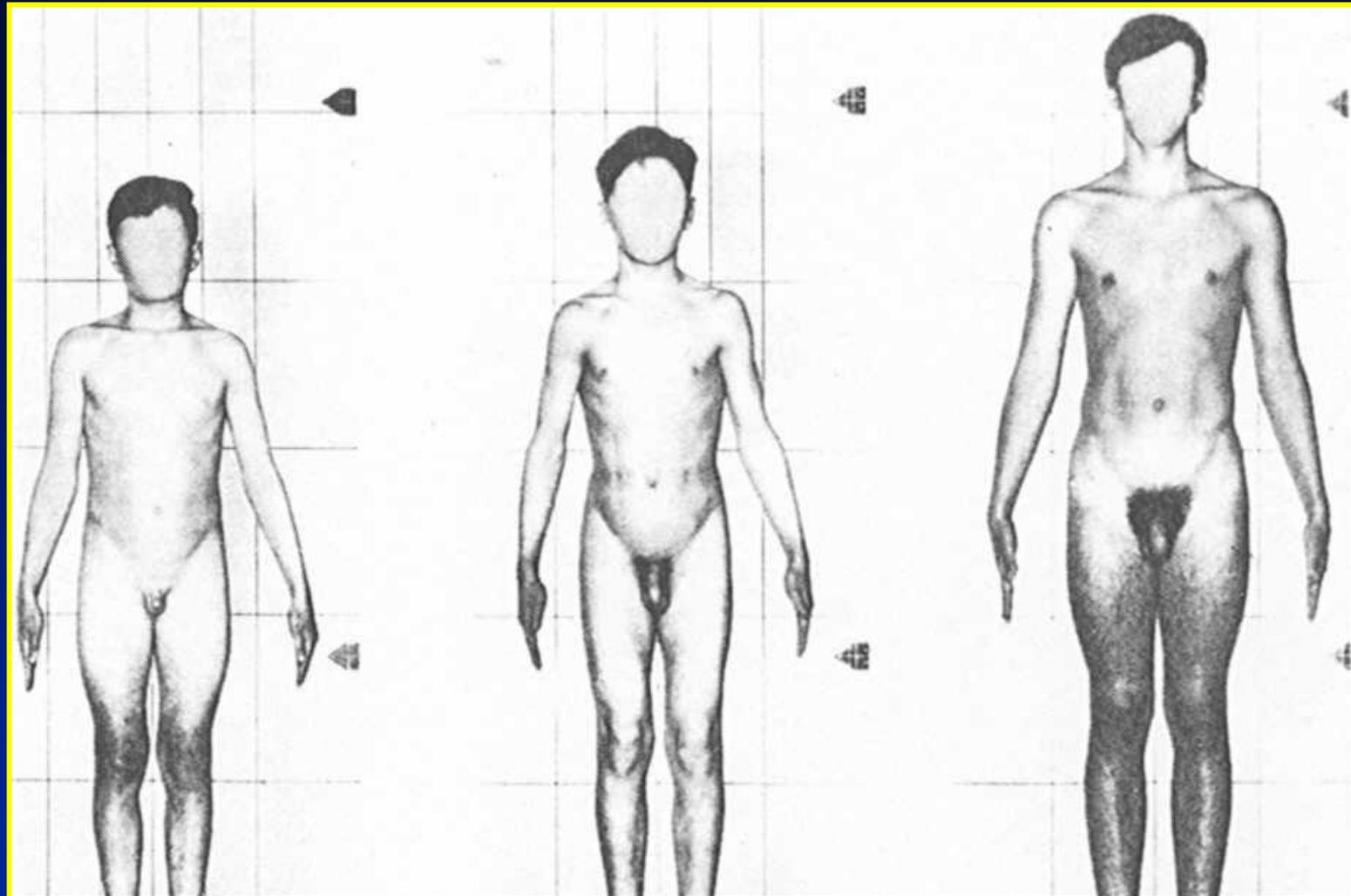
# Breytileiki í tímasetningu

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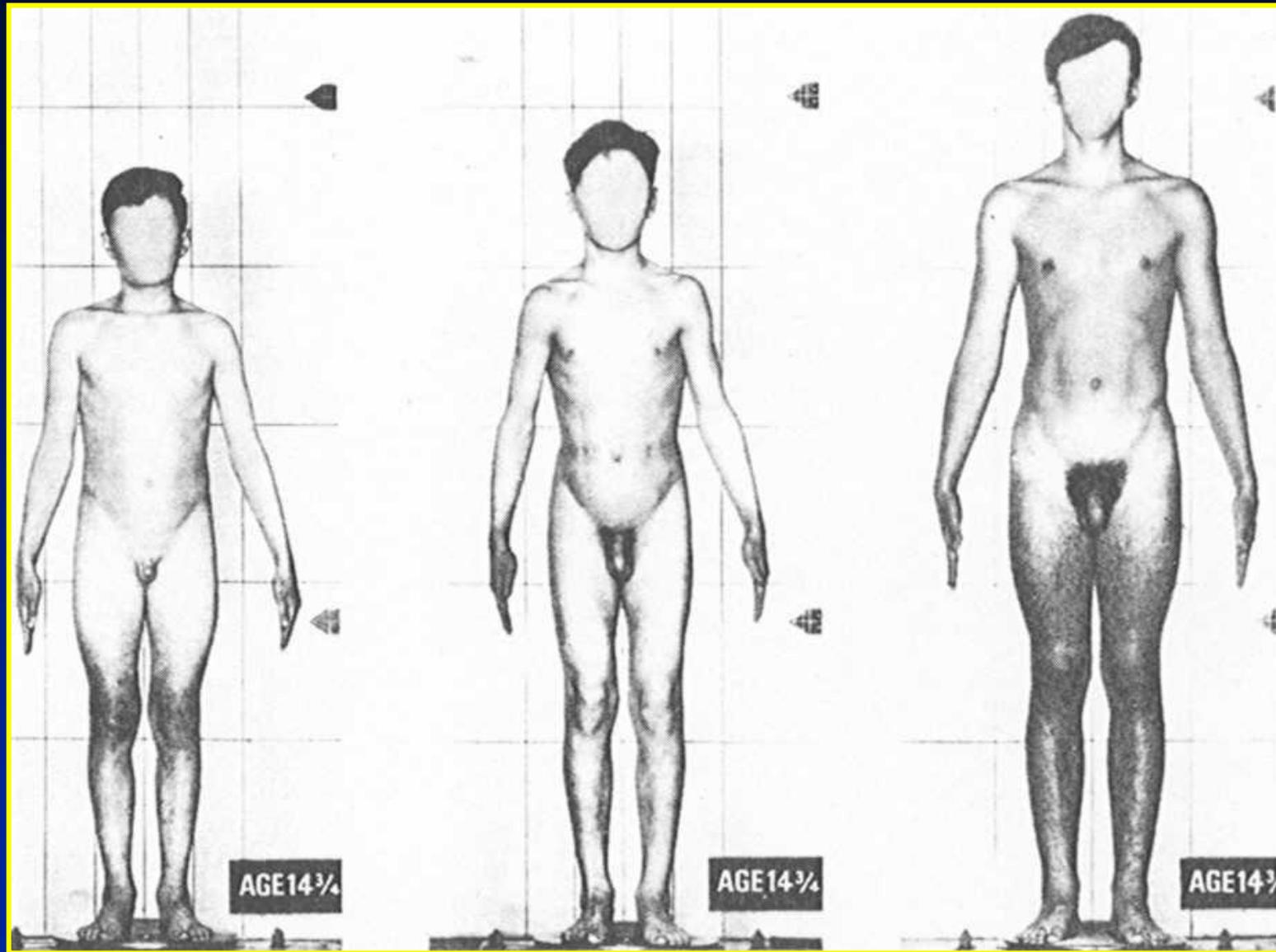
Skilgreining á eðlilegum breytileika

Of snemma eða of hratt

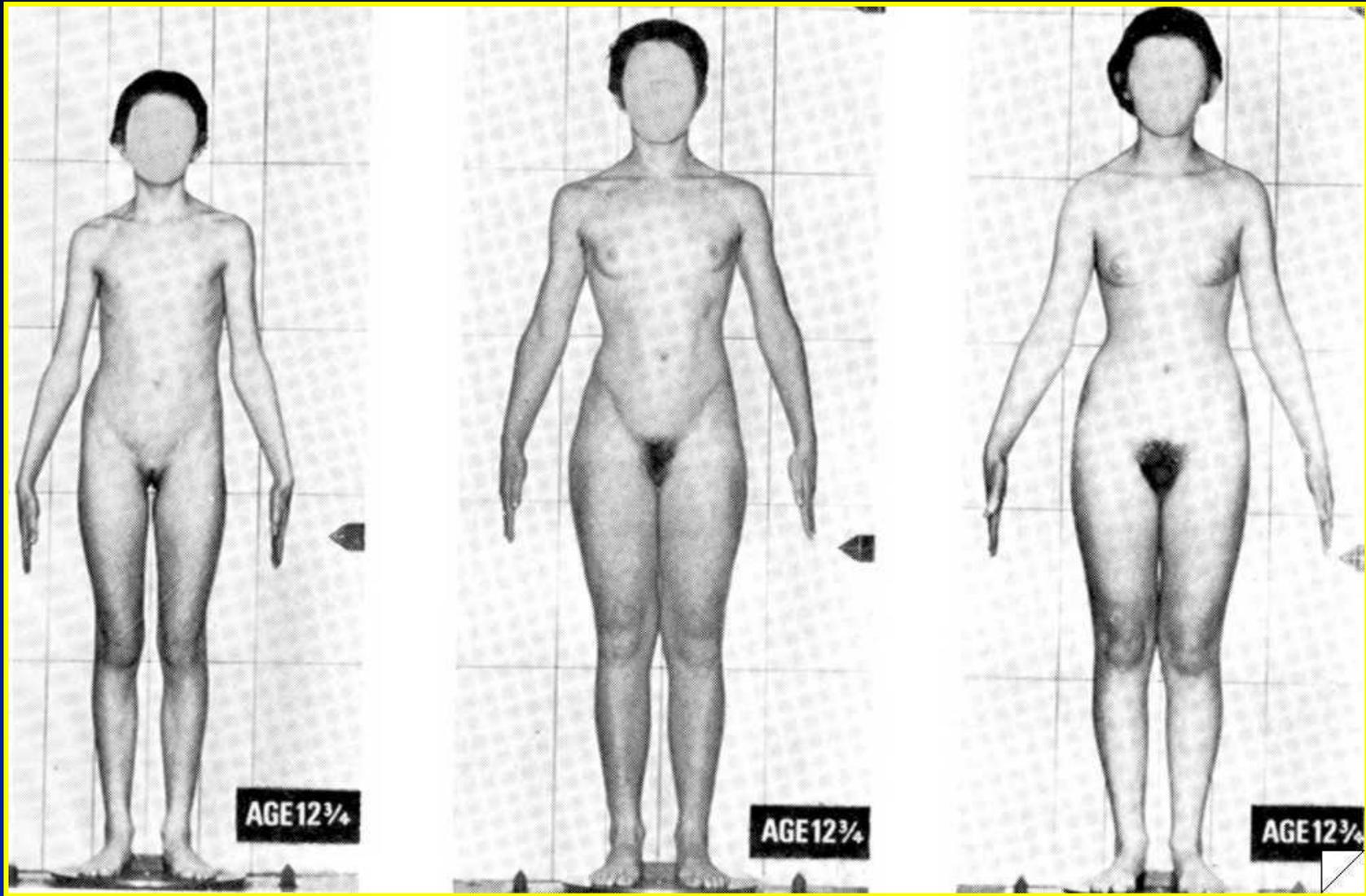
Of seint



**Variation in Timing of Male Pubertal Development. From Tanner, J.M.**



**Variation in Timing of Male Pubertal Development. From Tanner, J.M.**



**Variation in Timing of Female Pubertal Development. From Tanner, J.M.**

# Hvað skilgreinir upphaf kynþroska??

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- Brjóstastækkun

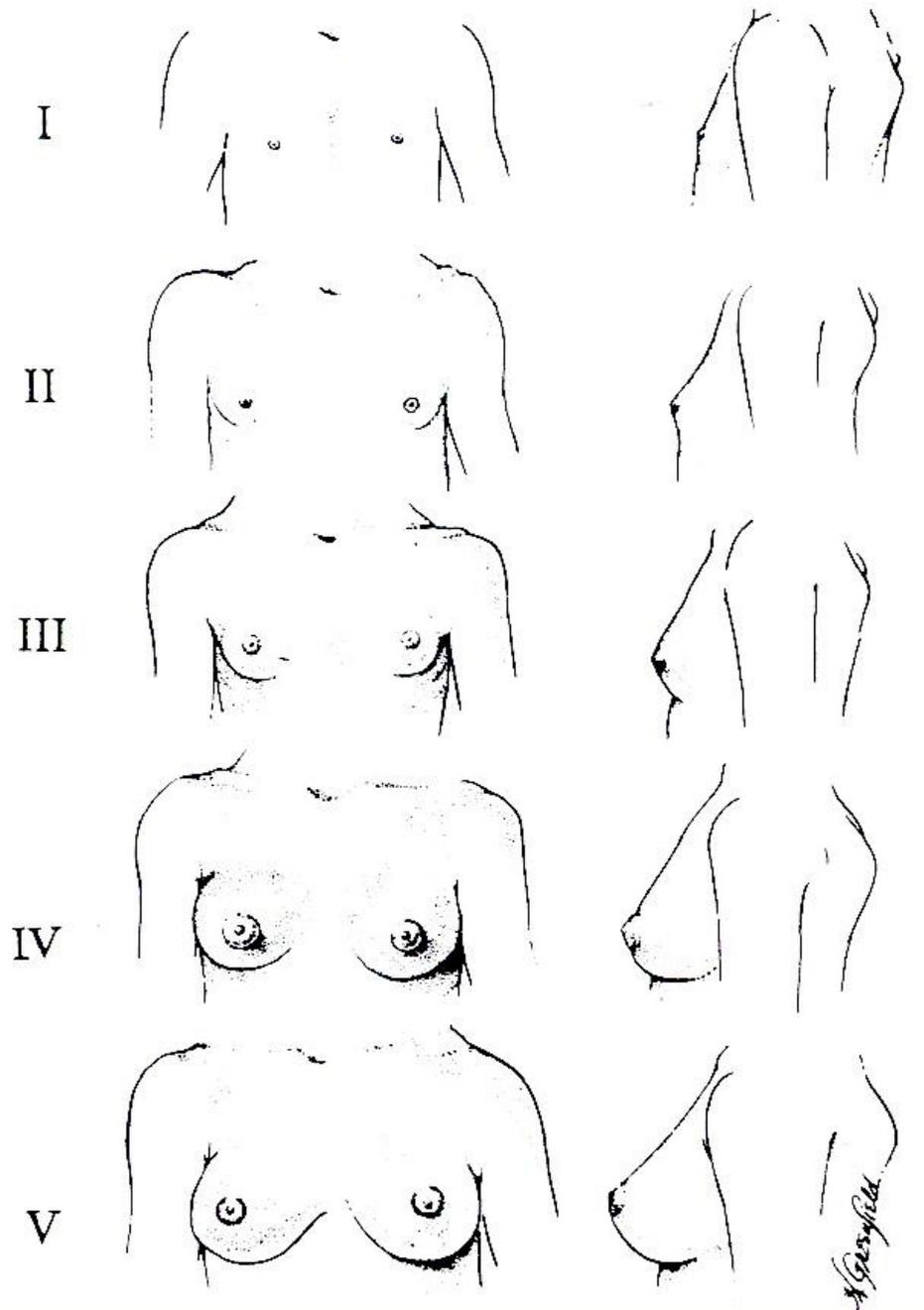
- Eistastækkun

- Skaparhár

- Mútur

- Blæðingar

# Tanner Stigun: Stúlkur, Brjóst



Adapted from Marshall WA and Tanner JM

# Stærðarmæling á eistum

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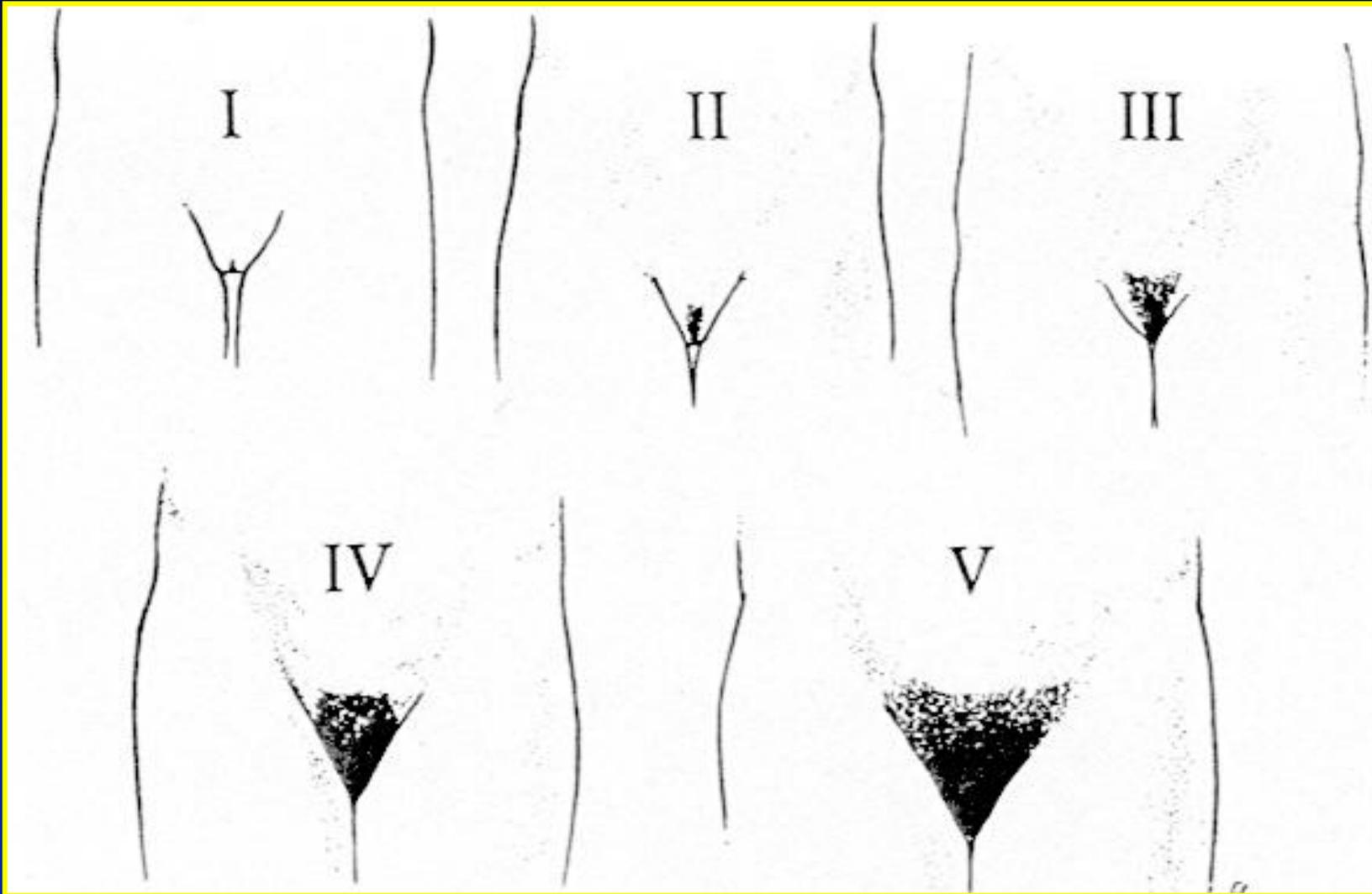


Skilgreining á byrjandi  
kynþroska:

Rúmmál  $\geq 4$  cc

Lengd  $\geq 2.5$  cm

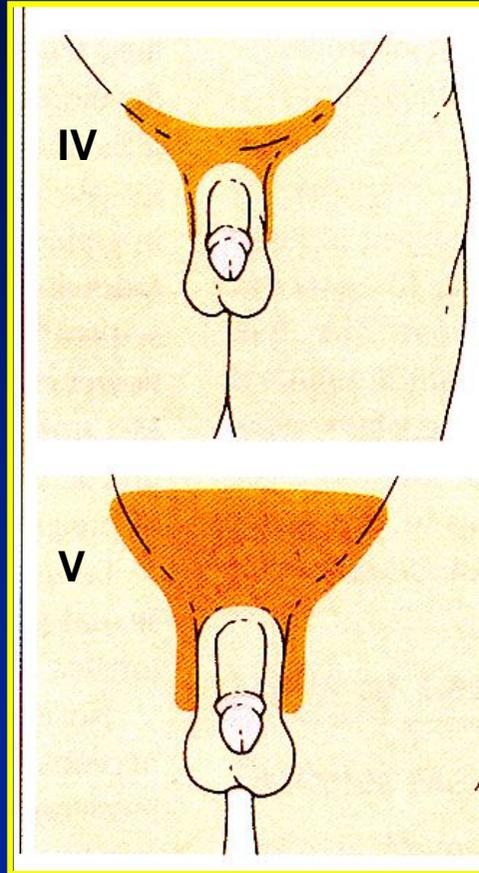
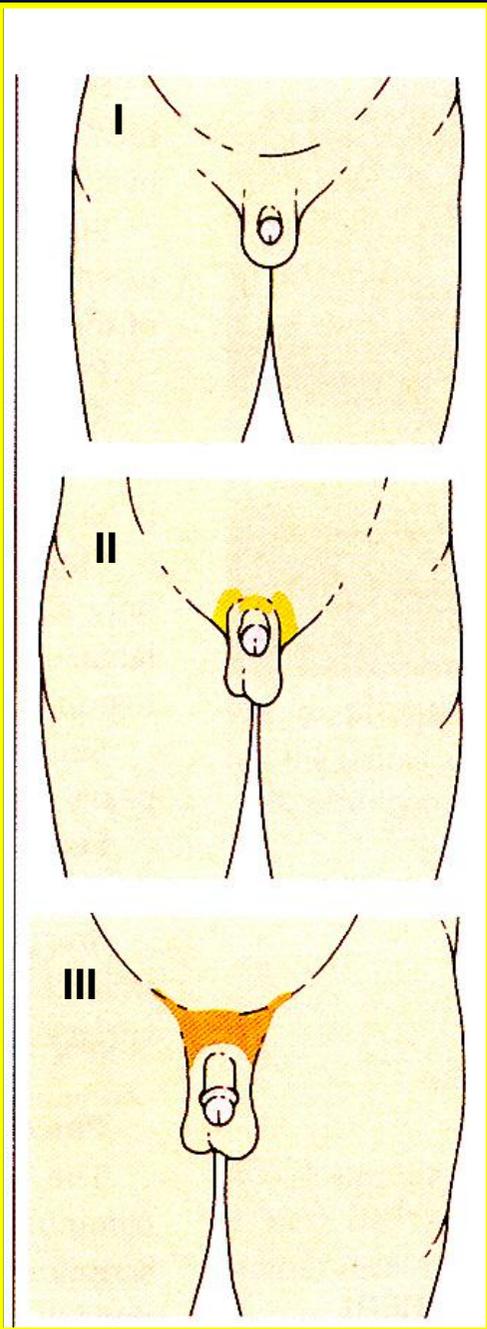
# Tanner Stigun: Stúlkur, skaparhár



Adapted from Marshall WA and Tanner JM

# Tanner Stigun: Drengir

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From Finegold, D.

# Hvad er of snemmt eda seint ?

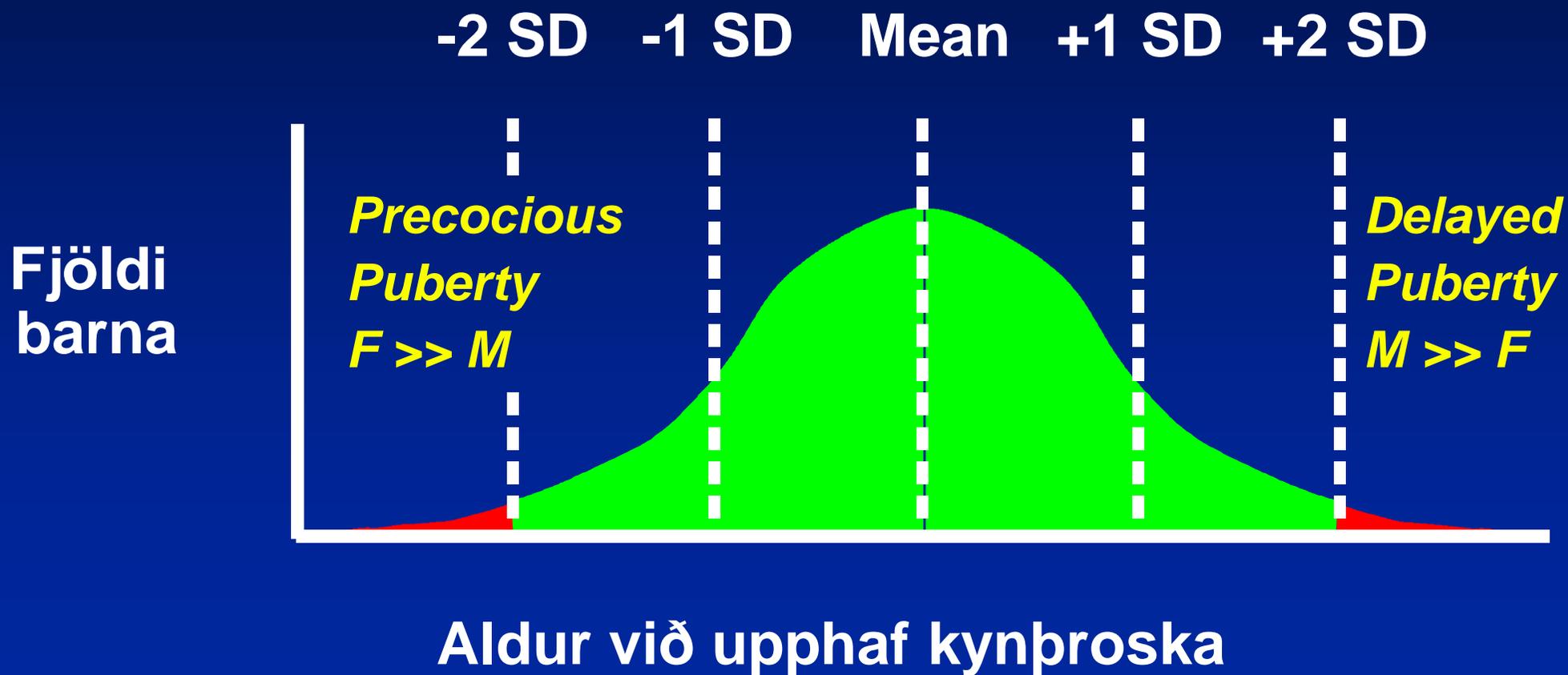
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## Upphaf kynþroska

	<b>Snemmt</b>	<b>Seint</b>
<b>Drengir</b>	<b>&lt; 9</b>	<b>&gt; 14</b>
<b>Stúlkur</b>	<b>&lt; 8</b>	<b>&gt; 13</b>
<b>Blæðingar</b>	<b>&lt; 10</b>	<b>&gt; 16</b>

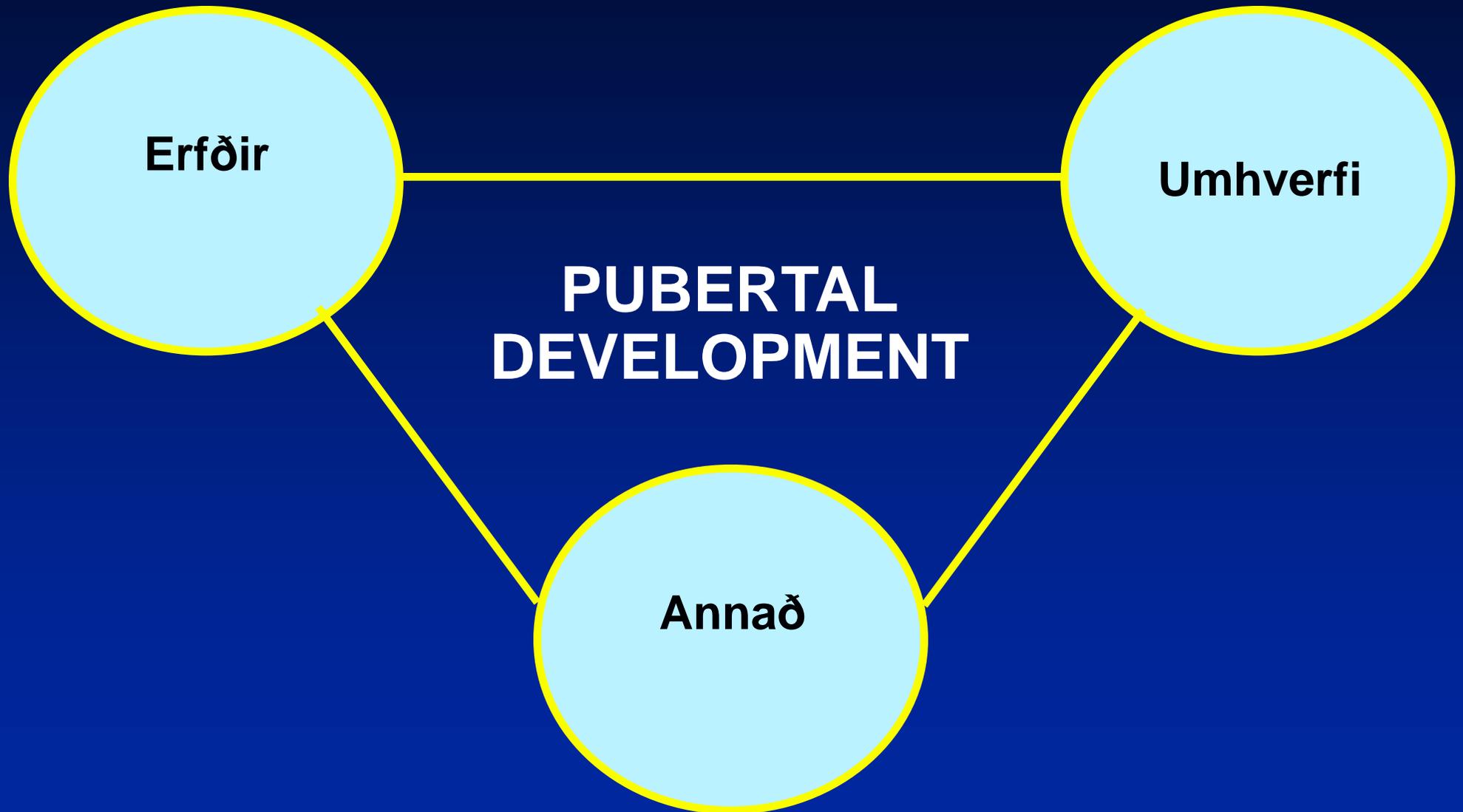
# Hver eru ytri mörk hins eðlilega í tímasetningu kynþroska?

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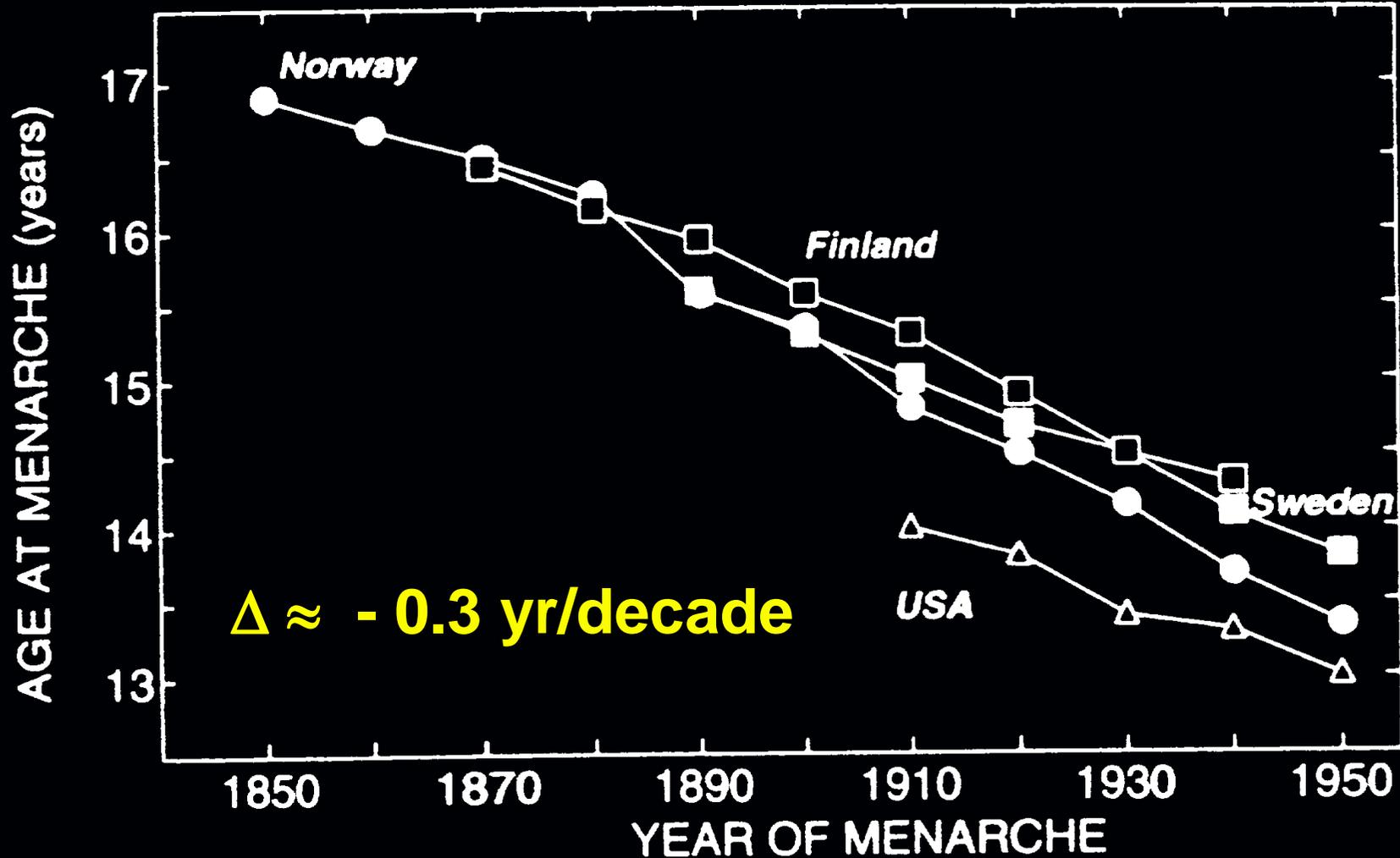


# Áhrifaþættir á vöxt og kynþroska

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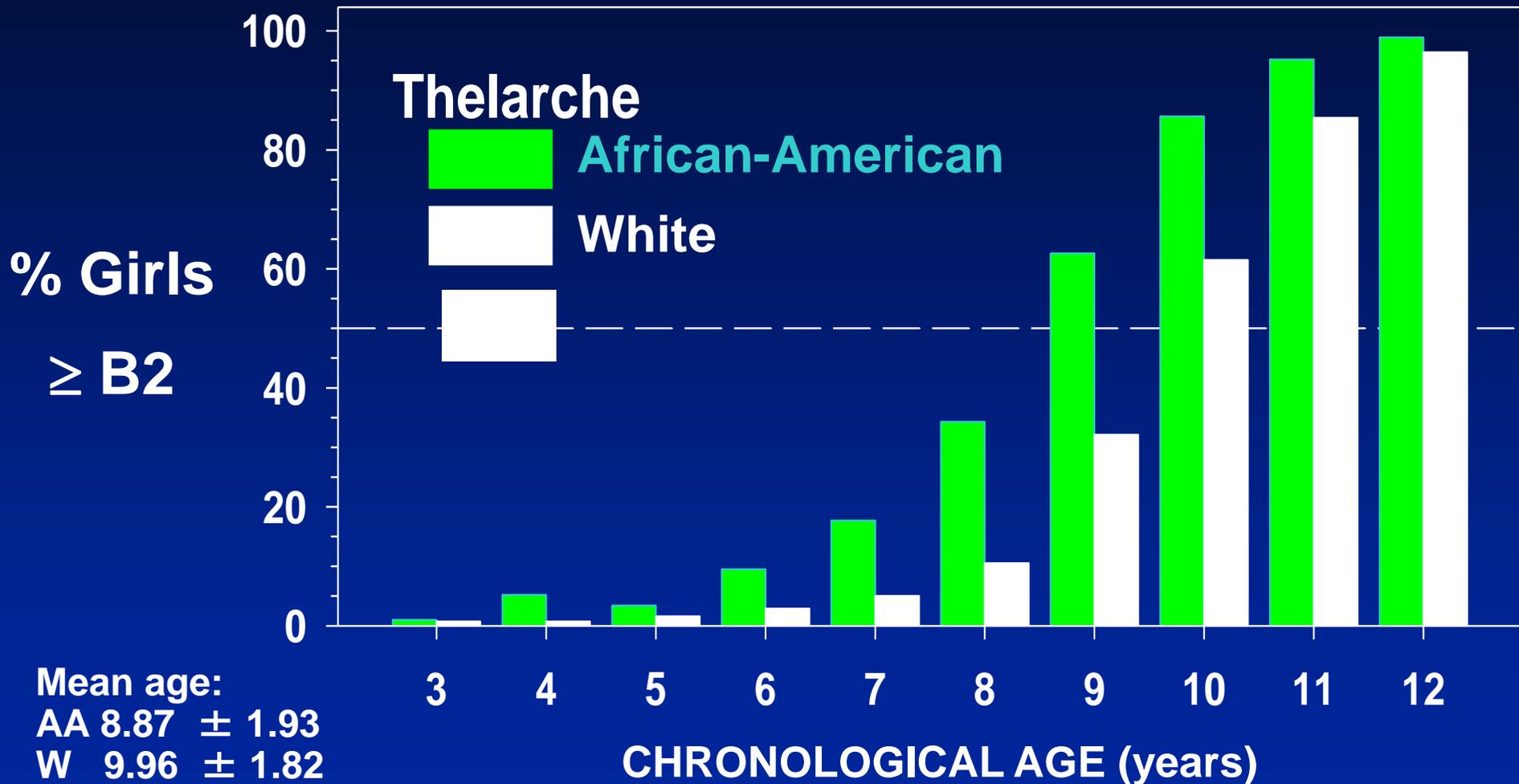


# Secular Trends in Age of Menarche



Foster and Nagatani, Biol Reprod 1999, 60:205 (from Tanner, Johnson, Everitt)

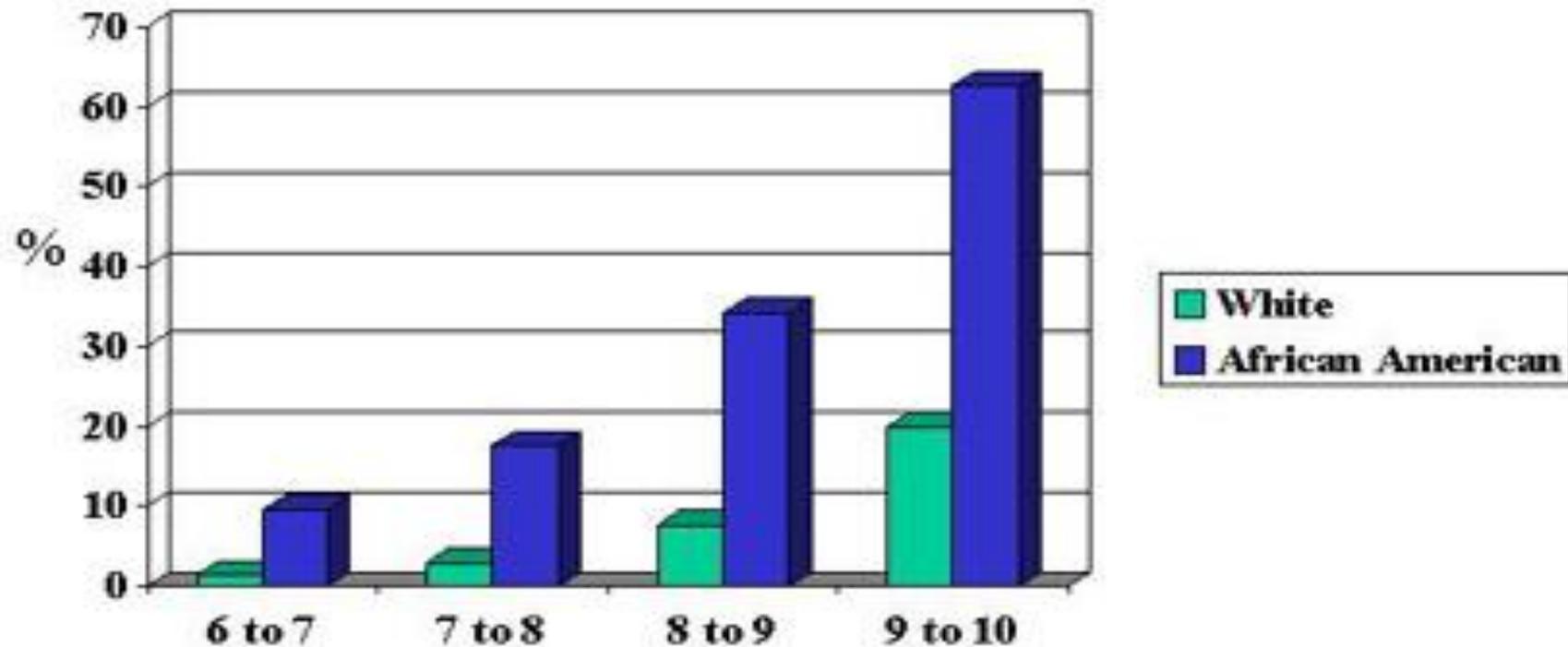
# Upphaf kynþroska - aldur



**Herman-Giddens, ME, et al. Pediatrics 1997; 99:505.**

# Upphaf kynþroska - skaparhár

## Prevalence of Pubic Hair at Stage 2 or Greater by Age and Race



Age  
Herman-Giddens et al. Pediatrics  
1997;99:505-512

# Breytileiki í tímasetningu

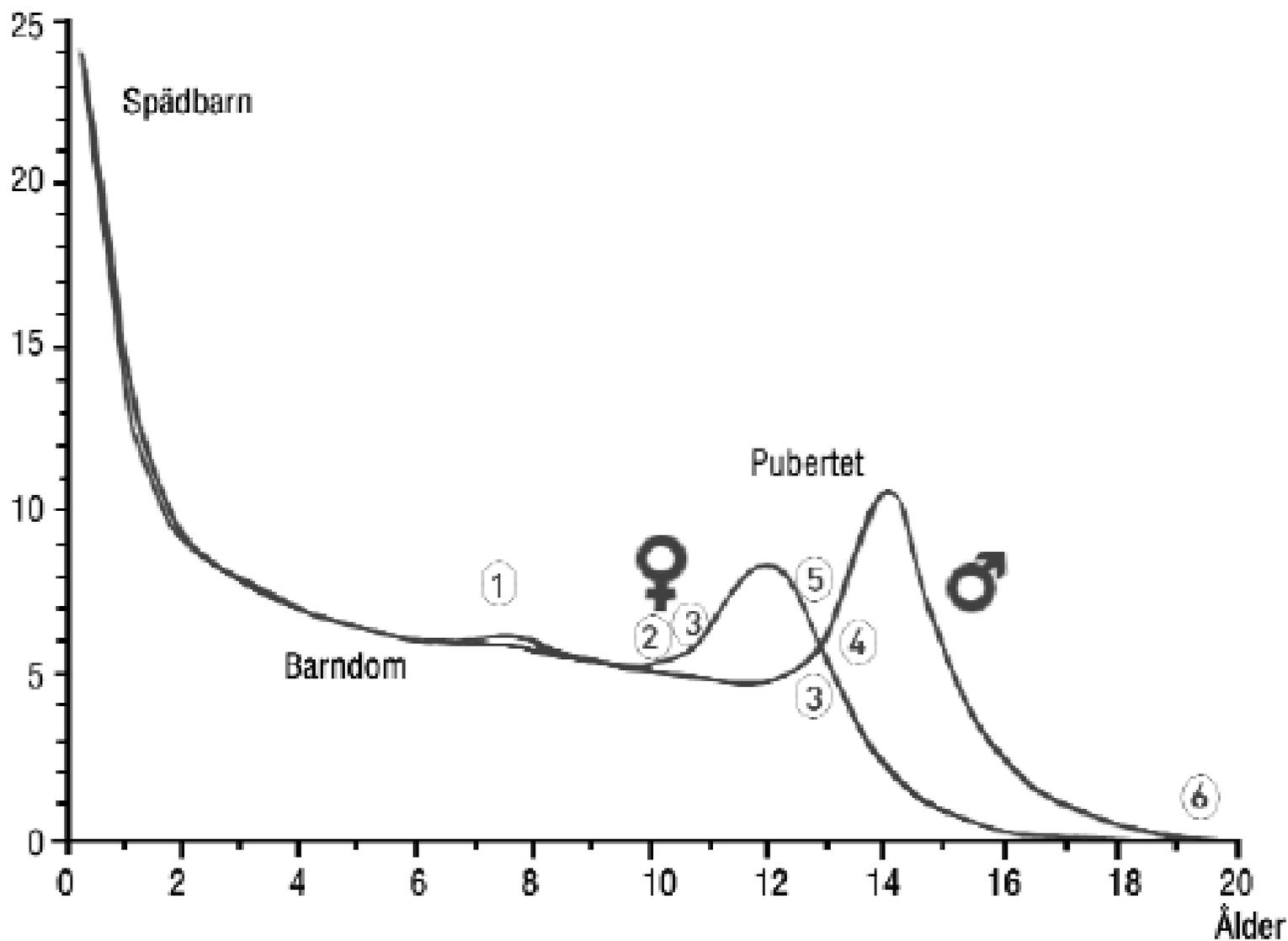
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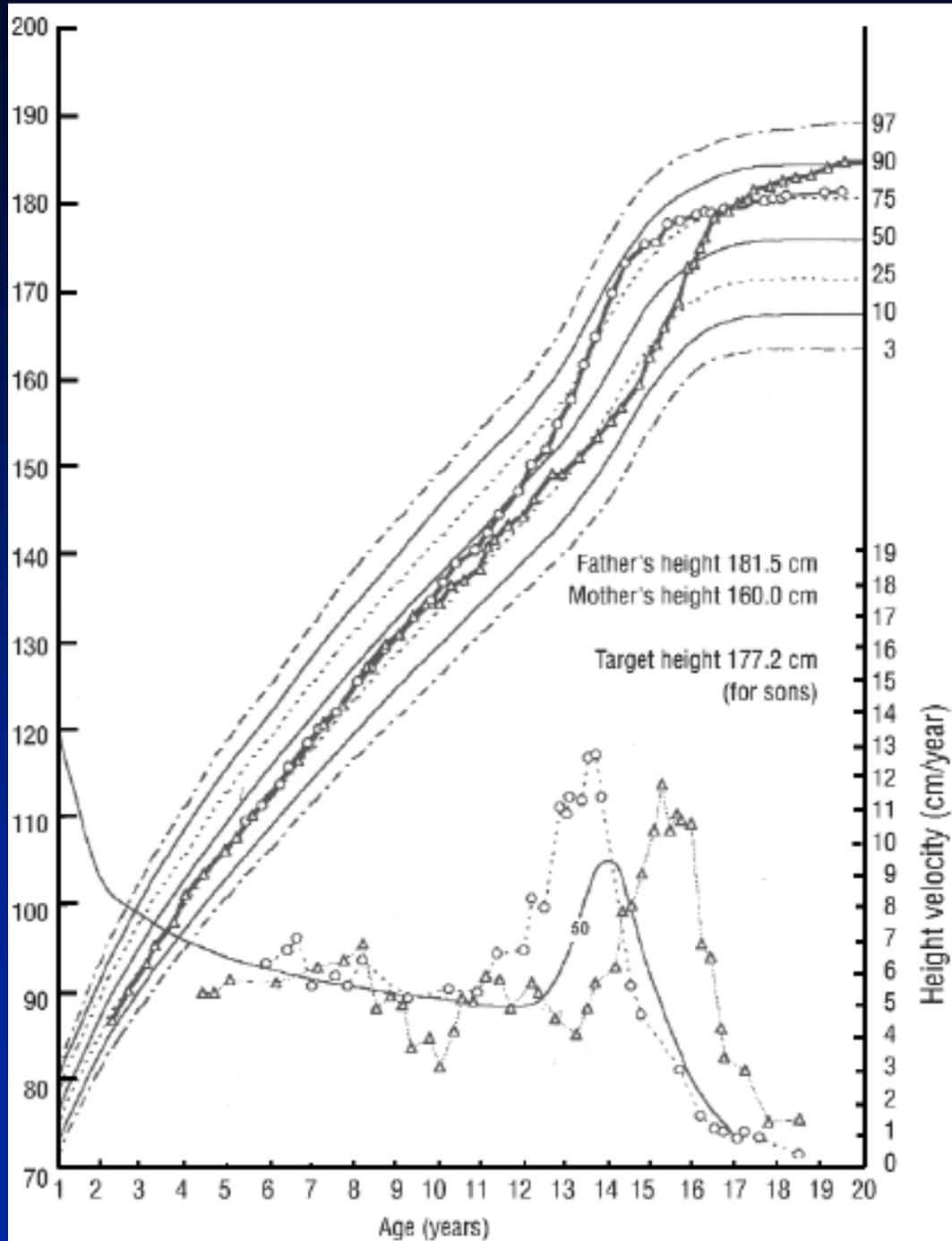
**Skilgreining á eðlilegum breytileika**

Of snemma eða of hratt

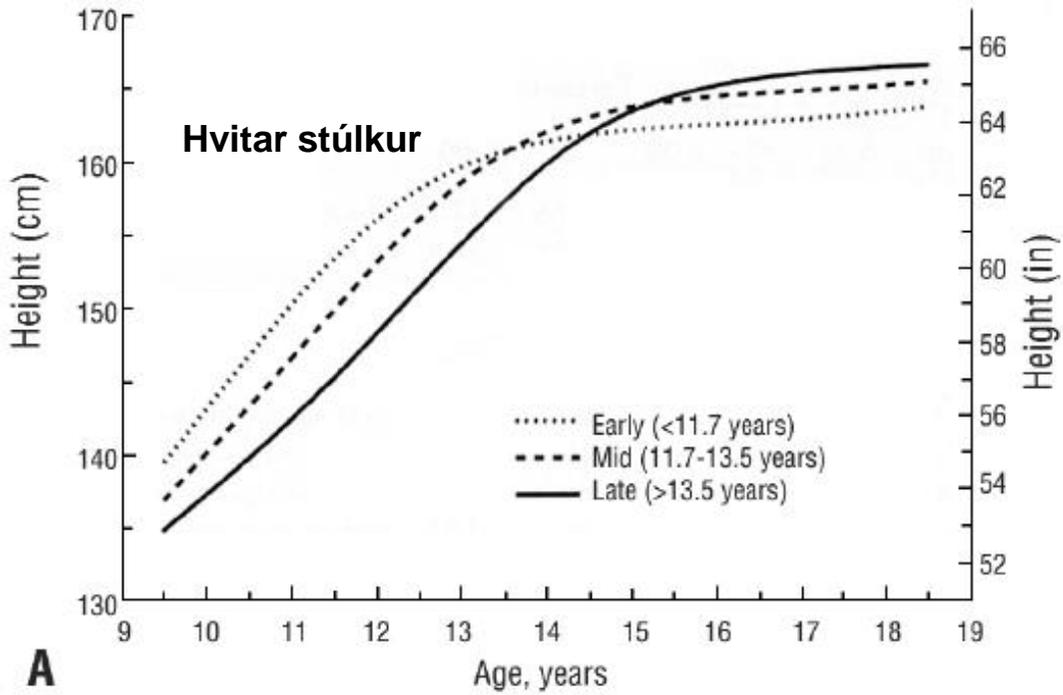
**Of seint**

# Tillväxthastighet

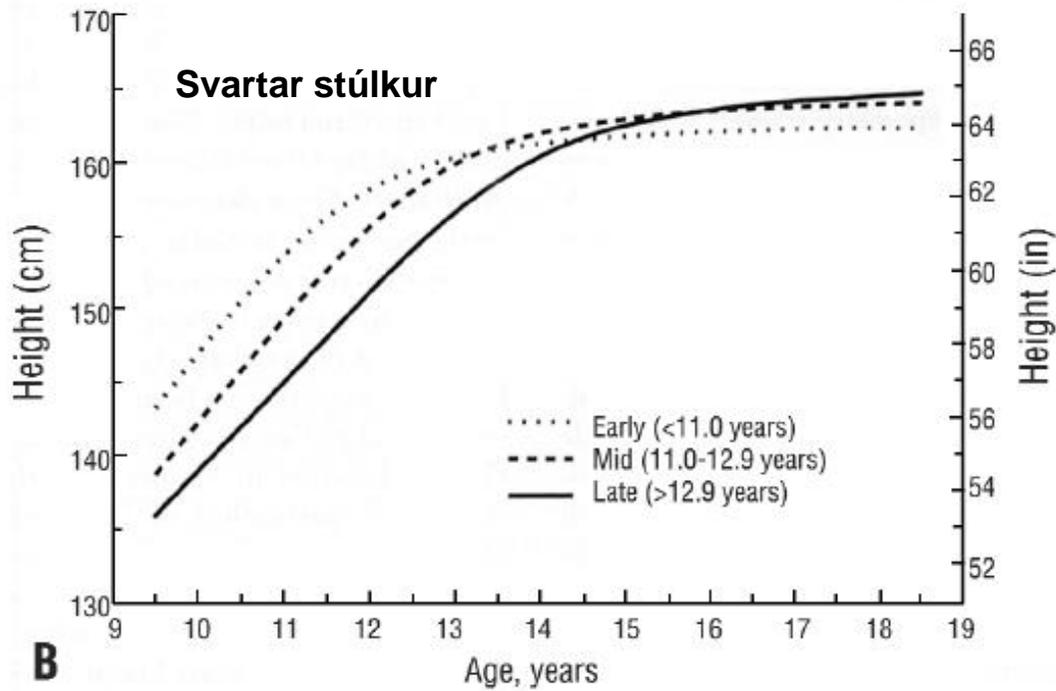




Buckler J. in Growth Disorders



**A**



**B**

National Heart, Lung and Blood Institute Growth and Health Study

# Ættleidd börn og kynþroski

- Það er litill munur milli kynþátta í aldri við kynþroska
- Sömu skilgreiningar eru í gildi um allan heim
- Nýlega rannsóknir styðja grun um að ættleidd börn fari SUM fyrr í kynþroska en jafnaldrar þeirra.
- Mismunur milli landa
- Mismunur milli aldurs barna við ættleiðingu
- NB á við mjög fá þessara barna og aðallega stúlkur

# Dönsk rannsókn

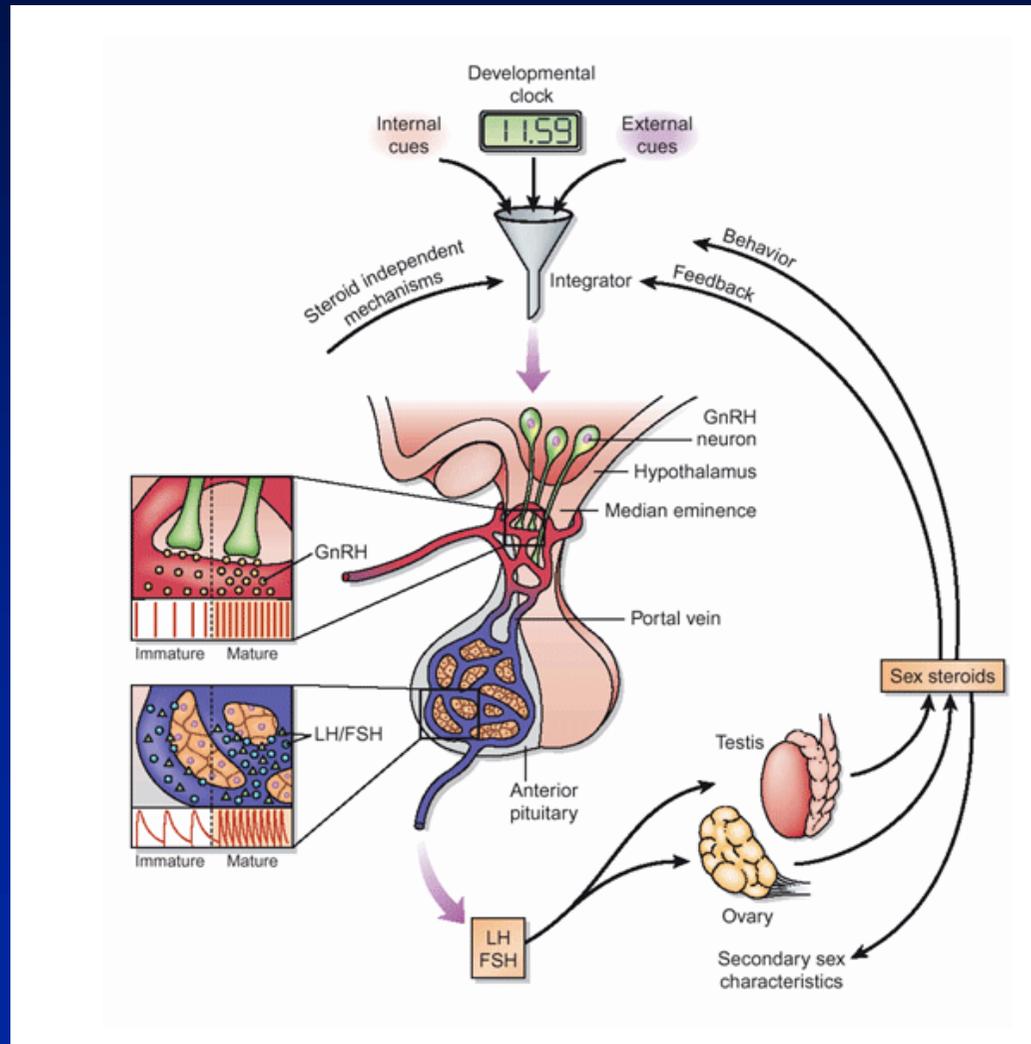
- 655 tilfelli snemmkomins kynþroska hjá 1,3 milljón börnum greind á árunum 1993-2001
- Af þessum tilfellum voru 51 ættleitt barn
- 20 x aukin tíðni meðal ættleiddra barna i heildina
- Mun minni líkur ef barn ættleitt fyrir 2 ára aldur
  - T.d börn frá Asiu
  - 7,2 x aukin tíðni ef undir 2 ára
  - 69 x aukin tíðni eftir 2 ára
- Hins vegar varla marktækur munur á börnum frá Kóreu
  - En flest þeirra undir 2 ára

# Samanburðarhópur

- Börn sem fluttu til Danmerkur með foreldrum sínum
- Aukin tíðni 1.5 x og ekki marktæk!!

# Hvað veldur???

- Margar tilgátur
- Skordyraeitur?
- Stress
- Næringarástand
- O.fl.
- O.fl.



# Byrjandi brjóstaproski hjá ungum stúlkum

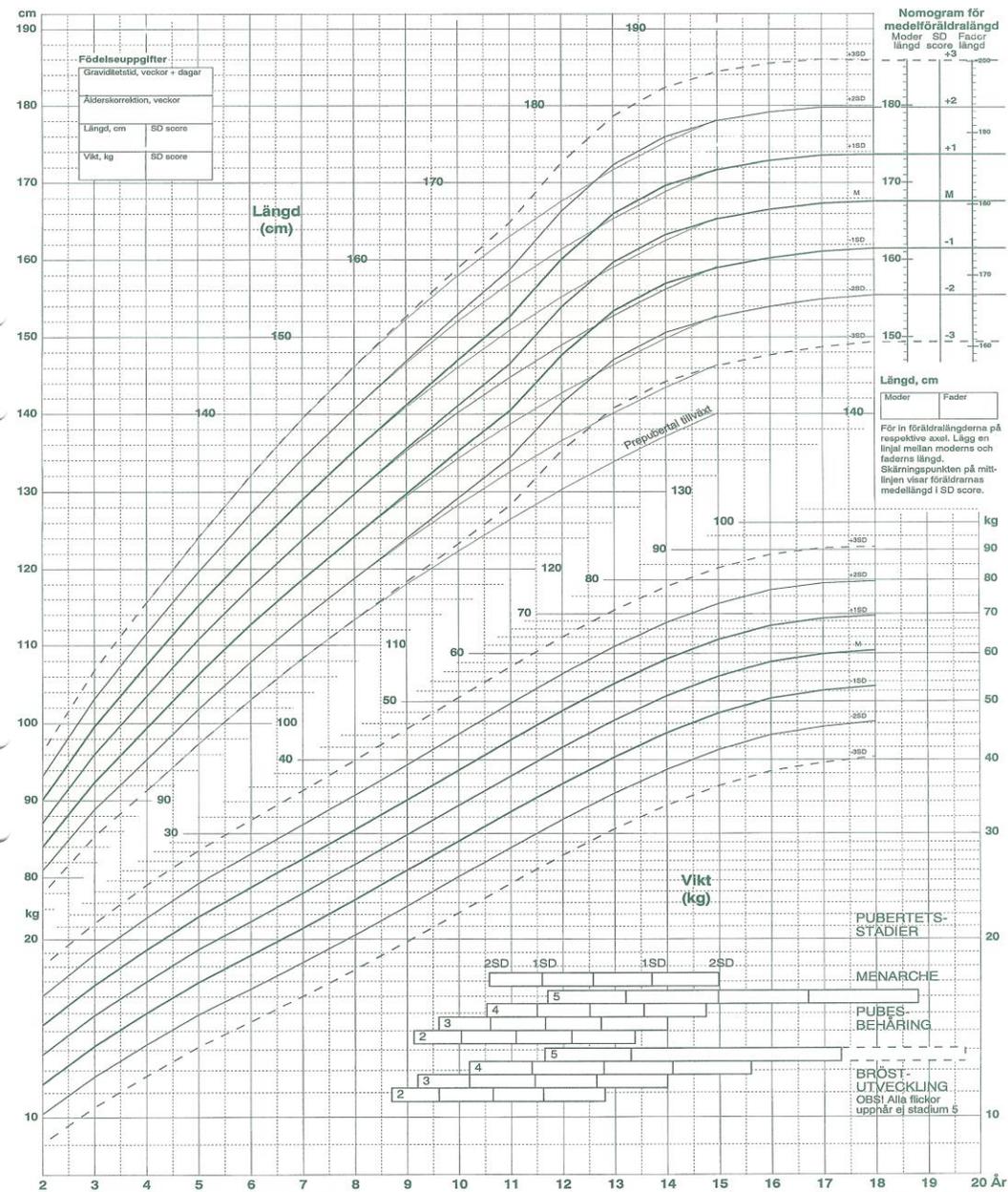


**Getum við gert  
eitthvað?**

**Eigum við að gera  
eitthvað?**

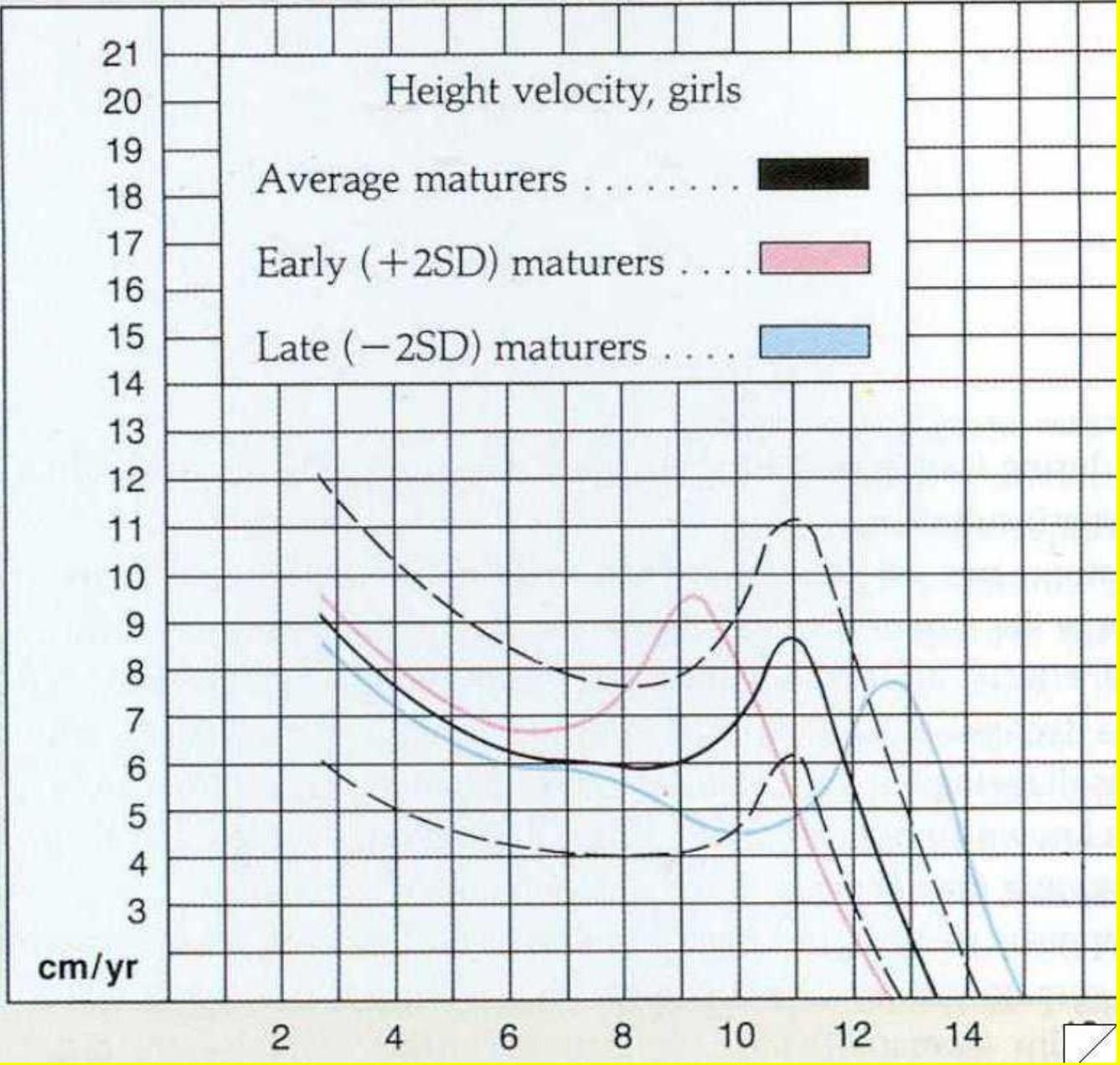
# Getum gert

- Mikilvægt að meta hvert tilfalli
- Muna að eðlilegur breytileiki er mikill
- Hægt er að seinka kynþroska með lyfjum
  - Ef **mjög** snemma til að bæta endanlega hæð (gera eðlilega)
  - Ef kynþroski skapar “andleg” vandamál



### Height velocity, girls

- Average maturers . . . . . 
- Early (+2SD) maturers . . . . . 
- Late (-2SD) maturers . . . . . 





Male 6 yrs



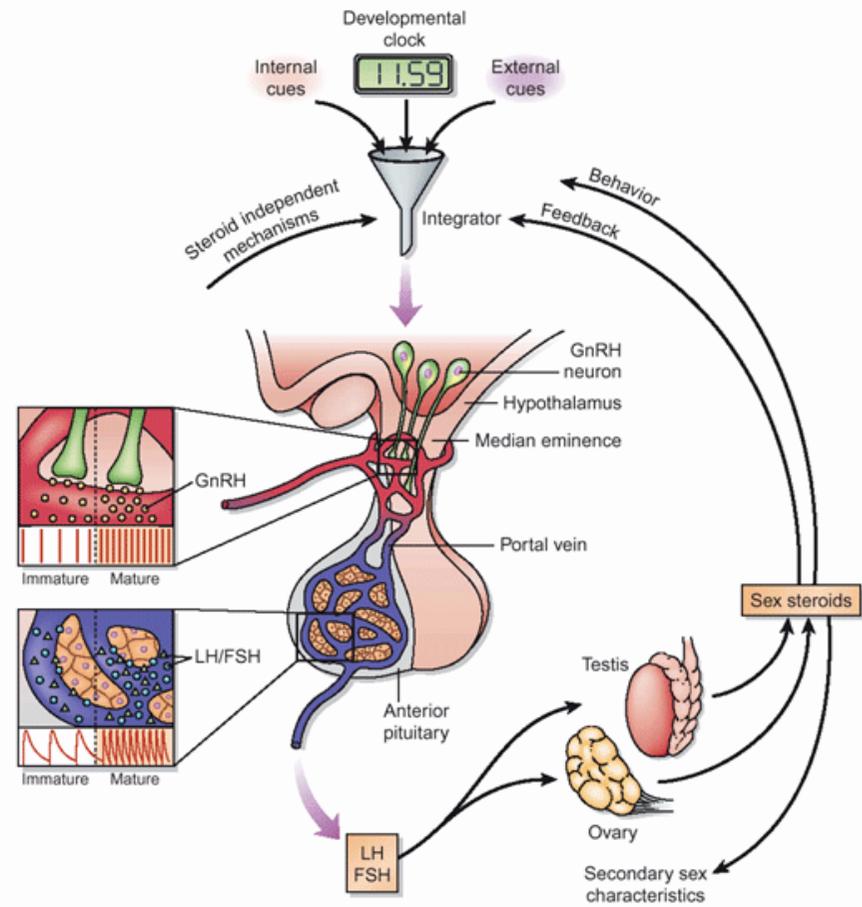
Male 14 yrs

**Beinaldur:**

**Óbeint mat a  
áhrifum  
Kynhormóna**

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**Hæðarspá**



# Mikilvægt

- Oft eru ættleidd börn frá löndum þar sem fólk er almennt lágvaxnara en í N-Evrópu
- Engin meðferð getur breytt þeirra erfðafræðilegu hæð!!
- Meðferð beinist að því að leiðrétta utanaðkomandi vanda.
- Þó að tíðni snemmkomins kynþroska sé aukin hjá ættleiddum börnum eru líkurnar á þessum vanda ekki stórar!
- Lykillinn að réttri meðferð er gott eftirlit með vexti og þroska!

# Hvad er of snemmt eda seint ?

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Takk fyrir