1 **The Genital System**

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2 **Development of the Female and Male External Genitalia**

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- Before 8 weeks genitalia in an ambiguous state
- Normal female genitalia formed by absence of testosterone
  - Occurs between 8th-10th weeks

3 **Female Genitalia**

- Before 8th week, still ambiguous
- Females formed from absence of testosterone
- Sonographically
  - Coronal plane or tangential
  - Identify:
    - Labia majora
    - Separation between labia minora
    - May see edema of the labia

4 **Male Genitalia**

- Visualize between the legs
  - Penis
  - Rounded scrotum
    - Possibly testes; depending on gestational age
- Testicular descent should be seen by 32 weeks
- Distinguish between fetal fingers and umbilical cord

5 **Hydrocele**

- Collection of fluid along the processus vaginalis
- Small amount of fluid in scrotum normal
- Typically don't increase in size, and should resolve in first 9 months of life.
- If enlarging, persistent, or see echogenic mass in scrotum-possibly inguinal hernia

6 **Hypospadia/ Ovarian Cysts**

- Hypospadia
  - Penis with abnormal urethral opening
- Ovarian Cysts
  - Often from maternal hormonal stimulation
  - Typically of no consequence
  - Document
    - Measure
    - Color Doppler

7 **Ambiguous Genitalia**

1 - Difficulty to assign the fetal gender
  - Unable to differentiate between short penis and hypertrophid clitoris
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- Most common cause:
  - Chromosomally XX fetuses=adrenal hyperplasia

8 **Summary**

- Best plane of section for visualization:
  - Coronal
  - Tangential
- Males
  - Visualize penis and scrotum
  - Testes descend by 32 weeks
- Females
  - Visualize labia majora and minor
  - “three white” lines
- Never Guess or Assume from lack of fetal parts!