## Child With Suspected Gynecomastia

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| • Palpable subareolar breast tissue in male | • Consider evaluation in prepubertal males or if pubertal males with significant breast tissue (after consultation with Pediatric Endocrinologist)  
  o LFTs  
  o LH, FSH*  
  o Testosterone*  
  o Estradiol*  
  o DHEA-S  
  o TSH, Free T4  
  o hCG  
  o Prolactin  
  o Karyotype | Prepubertal males | Pertinent medical records | **Pubertal Gynecomastia: A Guide for Families** |
| • Breast tissue may be asymmetric, unilateral, or bilateral but appear at different times | **Radiologic studies:**  
  • Testicular ultrasound if testicular mass or elevated hCG | **Routine:**  
  Pubertal males with significant or rapidly enlarging gynecomastia | Recent laboratory studies | **References** |

*Pubertal laboratory tests should be obtained in the early AM using sensitive pediatric assays only
**Differential diagnosis of gynecomastia:**

- Pubertal gynecomastia
- Pseudogynecomastia due to obesity/lipomastia
- Hypogonadism
- Hyperthyroidism
- Exogenous exposures to lavender, tea-tree oil
- Medication induced: Antipsychotics, Anabolic steroids, Alcohol or drugs of abuse including: marijuana, heroin, amphetamines
- Pathologic causes: hCG secreting tumors, testosterone or estrogen secreting tumors (Leydig cell tumor, adrenal tumor), liver disease (chronic)
- Breast masses: benign tumors (lipomas, neurofibromas, dermoid cysts), rarely carcinomas

**Additional Information:**

- Benign, pubertal gynecomastia is the most common cause of gynecomastia and occurs in up to 2/3 of normal pubertal boys, with the majority of pubertal gynecomastia self-resolving by completion of puberty.
  - Laboratory/radiologic evaluation is generally not needed in boys with suspected pubertal gynecomastia unless there is significant or rapidly changing breast development.
  - Boys with suspected pubertal gynecomastia should be monitored for rapid progression of breast development.
- Gynecomastia results due to relative imbalance between testosterone and estradiol levels, transient estradiol excess or increased sensitivity of breast tissue to estrogen.
- Gynecomastia can be commonly associated with Klinefelter syndrome.
- No good treatment options exist, regardless of cause. Once growth and puberty is complete, referral for cosmetic surgery may be considered.

**Suggested References and Additional Reading:**
