

Pediatric Endocrinology

DIAGNOSIS	EVALUATION PRIOR TO REFERRAL	WHEN TO REFER	WHAT TO SEND	COMMENTS
Short Stature	History and physical exam: LABS: • TSH • Free T4 OR T4 • Electrolytes • Blood Count • IGF-1 • Chromosomes (female) RADIOGRAPHIC STUDIES: • Bone Age	<ul style="list-style-type: none"> • Child is less than 5th percentile in height • Strongly recommend referral if child is > 2 years old and growth velocity less than 4 cm a year for greater than 1 year 	<ul style="list-style-type: none"> • Essential: Prior growth data/growth charts • Relevant laboratory studies • Have patient bring bone age X-ray to clinic, if done • Pertinent medical records • Results of any additional tests 	<ul style="list-style-type: none"> • History, physical exam, evaluation of growth charts • Evaluation of prior labs if available • Additional labs if needed • Monitoring of interval growth
Precocious Puberty	History and physical exam: LABS: • LH • FSH • Testosterone (males) • Sensitive Estradiol (female) • TSH • Free T4 RADIOGRAPHIC STUDIES: • Bone Age	<ul style="list-style-type: none"> • Breast development or pubic hair in girls < 8 years old • Testicular enlargement (4 cc or > 2.5 cm) or pubic hair in boys < 9 years old 	<ul style="list-style-type: none"> • Essential: Prior growth data/growth charts • Relevant laboratory studies • Have patient bring bone age X-ray to clinic, if done • Pertinent medical records • Results of any additional tests 	<ul style="list-style-type: none"> • History, physical exam, evaluation of growth charts • Evaluation of prior labs if available • Additional labs if needed • Imaging studies may be necessary

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<p>Early Childhood Breast Development</p> <p>A little breast development in girls 12-24 months of age is not uncommon and usually not of concern, especially if bone age is normal.</p>	<p>History and physical exam:</p> <p>LABS:</p> <ul style="list-style-type: none"> • LH • FSH • Sensitive Estradiol (female) • TSH • T4 <p>RADIOGRAPHIC STUDIES:</p> <ul style="list-style-type: none"> • Bone Age 	<ul style="list-style-type: none"> • Progressing over time • Accelerated growth • Vaginal bleeding • Café au lait spots on physical exam (possible McCune-Albright syndrome) 	<ul style="list-style-type: none"> • Essential: Prior growth data/growth charts • Relevant laboratory studies • Pertinent medical records • Results of any additional tests 	<ul style="list-style-type: none"> • History, physical exam, evaluation of growth charts • Evaluation of prior labs if available • Additional labs if needed • Imaging studies may be necessary
<p>Early Childhood Axillary &/or Pubic Hair Development</p>	<p>History and physical exam:</p> <p>LABS:</p> <ul style="list-style-type: none"> • 17-hydroxyprogesterone • Androstenedione • DHEA-Sulfate • Testosterone <p>RADIOGRAPHIC STUDIES:</p> <ul style="list-style-type: none"> • Bone Age 	<ul style="list-style-type: none"> • Progressing over time • Accelerated growth 	<ul style="list-style-type: none"> • Essential: Prior growth data/growth charts • Relevant laboratory studies • Pertinent medical records • Results of any additional tests 	<ul style="list-style-type: none"> • History, physical exam, evaluation of growth charts • Evaluation of prior labs if available • Additional labs if needed • Imaging studies may be necessary

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Delayed Puberty	History and physical exam: LABS: <ul style="list-style-type: none"> • LH (fasting morning sample) • FSH (fasting morning sample) • Prolactin • Sensitive Estradiol (female) • Testosterone (male) • TSH • T4 RADIOGRAPHIC STUDIES: <ul style="list-style-type: none"> • Bone Age 	<ul style="list-style-type: none"> • For boys: no testicular enlargement by 14 years of age • For girls: not breast development by 13 years of age, or no menses by 16 years of age 	<ul style="list-style-type: none"> • Essential: Prior growth data/growth charts • Relevant laboratory studies • Pertinent medical records • Results of any additional tests 	<ul style="list-style-type: none"> • History, physical exam, evaluation of growth charts • Evaluation of prior labs if available • Additional labs if needed • Imaging studies may be necessary
Acquired Hypothyroidism (Hashimoto's Thyroiditis)	History and physical exam: LABS: <ul style="list-style-type: none"> • TSH • T4 • Thyroglobulin and peroxidase antibodies desirable 	<ul style="list-style-type: none"> • Elevated TSH >5 mIU/ml, low T4/free T4 • If TSH < 5 mIU/ml and T4/free T4 normal, consider obtaining thyroid antibodies and repeating TFTs in 2-3 months prior to referral 	<ul style="list-style-type: none"> • Pertinent medical records • Relevant laboratory studies (thyroglobulin and peroxidase antibodies if obtained) • Radiographic studies: Thyroid scan and ultrasound is not needed but report if studies obtained • Results of any additional tests 	<ul style="list-style-type: none"> • History, physical exam, evaluation of growth charts • Evaluation of prior labs if available • Additional labs if needed • Imaging studies may be necessary

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<p>Acquired Hyperthyroidism (Grave's Disease)</p>	<p>History and physical exam: LABS: <ul style="list-style-type: none"> • TSH • T4 • T3 • Free T4 RADIOGRAPHIC STUDIES <u><i>not needed:</i></u> <ul style="list-style-type: none"> • Thyroid scan • Ultrasound </p>	<ul style="list-style-type: none"> • Suppressed TSH • Elevated T4, T3/free T4 	<ul style="list-style-type: none"> • Pertinent medical records • Relevant laboratory studies • Results of any additional tests 	<ul style="list-style-type: none"> • History, physical exam, evaluation of growth charts • Evaluation of prior labs if available • Additional labs if needed • Imaging studies may be necessary