Pediatric Endocrinology Referral Guidelines
Table of Contents

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Table of Contents

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Thyroid Disorders

Congenital Hypothyroidism

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
Neonate with Abnormal Newborn Screening Test OR Infant with elevated TSH	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss treatment and to facilitate scheduling appointment*** **(901) 287-5437**	1. Confirmatory TSH PLUS 2. Free T4 or T4* *Recommend ordering STAT	1. All Clinical Notes available 2. Copy of Newborn Screening 3. Any Lab Results 4. Growth Charts or Measures
Child with known and treated Congenital Hypothyroidism	First Available Appointment - If patient has abnormal thyroid function testing, please call on-call Pediatric Endocrinologist to discuss initial recommendations.	1. Current TSH 2. Current free or total T4	1. Lab Results 2. Current Growth Chart 3. Last year of Clinical Notes, plus additional notes if relevant

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Thyroid Disorders

Acquired Hypothyroidism (Primary)

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. Elevated TSH 2. Low Free or Total T4	First Available Appointment - If patient has abnormal thyroid function testing and symptomatic, please call on-call Pediatric Endocrinologist to discuss initial recommendations.	1. Current TSH 2. Current Free T4 or Total T4 - If TSH is <10 and free or total T4 is normal, obtain Anti-Thyroglobulin and Anti-TPO titers, and repeat TSH and T4 within 3 months. - If TSH is rising or antibodies are positive, please refer. - Thyroid ultrasound is not needed unless nodules are palpable, or gland is asymmetric.	1. Lab Results 2. Current Growth Chart 3. Last year of Clinical Notes, plus additional notes if relevant

Acquired Hypothyroidism (Central)

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. Low or Low-normal TSH 2. Low Free or Total T4 AND 3. History of Traumatic Brain Injury, Brain Irradiation, Hypoxic Injury, Midline Facial Defects	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss treatment and to facilitate scheduling appointment*** **(901) 287-5437**	1. Confirmatory TSH PLUS 2. Free T4 or total T4*	1. Lab Results 2. Current Growth Chart 3. Last year of Clinical Notes, plus additional notes if relevant

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Thyroid Disorders

Neonatal Hyperthyroidism

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. Maternal history of Graves Disease 2. Low TSH (or suppressed) 3. Elevated Total or Free T4 4. Symptoms consistent with Hyperthyroidism: - Hypertension - Tachycardia - Poor feeding/Irritability - Diarrhea - Failure to Thrive	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss acute management*** **(901) 287-5437**	1. Confirmatory TSH PLUS 2. Free T4 or total T4 PLUS 3. Total T3 - Please consider obtaining Thyroid Stimulating Immunoglobulin (TSI) and Thyrotropin-Binding Inhibiting Immunoglobulin (TBII) titers. - If not previously drawn, please check maternal TSI/TBII, Anti-TPO, and Anti-thyroglobulin Antibody titers.	1. All Lab Results 2. All Clinical Notes available 3. Growth Charts or Measures

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Thyroid Disorders

Acquired Hyperthyroidism

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. Low TSH (<0.1 uU/mL) 2. Elevated Total or free T4 OR Elevated Total T3 3. Symptoms consistent with Hyperthyroidism: - Hypertension - Tachycardia - Weight Loss 4. Exam may include: - Goiter - Exophthalmos	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss management*** **(901) 287-5437**	1. Confirmatory TSH PLUS 2. Free T4 or Total T4 PLUS 3. Total T3 - Please consider obtaining Thyroid Stimulating Immunoglobulin (TSI) and Thyrotropin-Binding Inhibiting Immunoglobulin (TBII) titers.	1. Lab Results 2. Current Growth Chart 3. Last year of Clinical Notes, plus additional notes if relevant

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Thyroid Disorders

Goiter

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. Enlarged Thyroid on exam 2. Abnormal Thyroid Ultrasound 3. Abnormal TSH, Total or free T4	First Available Appointment **Urgent Referral if:** **- Asymmetric Gland** **- Increasing Size** **- Discomfort** **- History of Abnormal Biopsy** ***Call On-Call Pediatric Endocrinologist ASAP to discuss management*** **(901) 287-5437**	1. Current TSH 2. Current Free T4 or Total T4 - If Asymmetric, increasing in size, or palpable nodule, please obtain Thyroid Ultrasound	1. Lab Results 2. Current Growth Chart 3. Last year of Clinical Notes, plus additional notes if relevant If Urgent Referral please include with the above records all relevant imaging studies If Abnormal Thyroid Function tests noted, please see Hypothyroid or Hyperthyroid sections. If Thyroid Nodule noted, please see Thyroid Nodule section, p7

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Thyroid Disorders

Thyroid Nodule

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. Nodule > 1 cm on exam OR Increasing size of nodule on thyroid ultrasound 2. Family History of Thyroid Cancer or Multiple Endocrine Neoplasia	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss management and facilitate scheduling*** **(901) 287-5437**	1. Current TSH 2. Current Free T4 or Total T4 - Please consider obtaining Anti-Thyroglobulin and Anti-TPO titers - Thyroid Ultrasound (If not already performed)	1. Lab Results 2. Current Growth Chart 3. Past year of Clinical Notes, plus additional notes if relevant 4. All relevant imaging studies (CD/film) If Abnormal Thyroid Function tests noted, please see Hypothyroid or Hyperthyroid sections.
1. Nodule <1 cm OR 2. Non-palpable nodule discovered on thyroid ultrasound	First Available Appointment - If questions or additional concerns, please call office to discuss with MD.	1. Current TSH 2. Current Free T4 or Total T4 - Please consider obtaining Anti-Thyroglobulin and Anti-TPO titers - Thyroid Ultrasound (If not already performed)	1. Lab Results 2. Current Growth Chart 3. Past year of Clinical Notes, plus additional notes if relevant 4. All relevant imaging studies If Abnormal Thyroid Function tests noted, please see Hypothyroid or Hyperthyroid sections.

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Diabetes Mellitus/Other Glucose Disorder

Diabetes Mellitus (New Onset Diagnosis)

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. Increased thirst and urination 2. Unexplained weight loss 3. Vomiting* 4. Lethargy* 5. Deep Respirations* *Concern For DKA	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss management*** **(901) 287-5437** *If DKA is suspected, **send IMMEDIATELY to Emergency Department** AND notify On-Call Pediatric Endocrinologist.	1. Fingerstick Blood Glucose (BG) 2. Urinalysis or "Dipstick" Urine for Ketones *and* Glucose. - If patient NOT acutely ill, please consider STAT Chemistry panel (BMP or CMP) to help determine disposition (Emergency Department vs Outpatient Diabetes Clinic) *Diabetic Ketoacidosis (DKA) is likely if patient is vomiting, lethargic, or develops abnormal respirations, and urine testing shows both Glucose and Ketones.	If history and laboratory results suggest new Diabetes Mellitus**, then referral and call is **URGENT**.

**Per ADA guidelines, diagnosis of Diabetes Mellitus is based on following:
- Fasting serum BG 126 mg/dL or higher;
or
- 2 hour post-meal *or* 2H OGTT BG over 200 mg/dL;
or
- Hemoglobin A1c >6.5%;
or
- Random BG over 200 mg/dL in a child with symptoms of hyperglycemia

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Diabetes Mellitus/Other Glucose Disorder

Diabetes Mellitus (Prior Diagnosis and Transfer of Care)

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
Child or adolescent with prior diagnosis of Diabetes Mellitus, and currently on therapy. Patients transferring to Le Bonheur Diabetes Clinic are typically scheduled for next available office appointment to establish care.	First Available Appointment - If questions or additional concerns, please call office to discuss with MD.	1. Current Hemoglobin A1c 2. Current Fingerstick Glucose	1. Lab Results 2. Current Growth Chart 3. Last year of Clinical Notes, plus additional notes if relevant

Hypoglycemia

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
The definition of hypoglycemia in infants and children continues to be controversial. Symptoms in children may include tremor, hunger, weakness, sweating. -Severe hypoglycemia may include lethargy, irritability, confusion, seizure, coma.	Documented hypoglycemia **Plasma glucose < 50 mg/dL** **Call On-Call Pediatric Endocrinologist ASAP to discuss management – (901) 287-5437**	1. Serum glucose 2. Urine ketones 3. If possible, may obtain the following Critical Samples at the time of hypoglycemia (STAT): - Venous serum glucose (not POC) - Insulin level - Beta-hydroxybutyrate - Cortisol - Growth Hormone - Free Fatty Acids - Lactate - Urine for ketones	1. Lab Results 2. Current Growth Chart 3. Last year of Clinical Notes, plus additional notes as relevant If Urgent Referral please include with the above records

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Diabetes Mellitus/Other Glucose Disorder

Impaired Fasting Glucose OR
Impaired Glucose Tolerance

Laboratory Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. Hemoglobin A1c (abnormal >6.0%) 2. Serum Glucose screening - Impaired Fasting Glucose: 100-125 mg/dL - Impaired Glucose Tolerance: 2 HR post-OGTT* 140-199mg/dL 3. Recommend renal function and liver function tests prior to referral.	First Available Appointment - If questions or additional concerns, please call office to discuss with MD.	*Performing 2 hour Oral Glucose Tolerance Test (8 years and over): - Fast for 8 hours/overnight - Dose: 1.75 grams of Glucola/kg of body weight (max dose 75 gms) - Consider serum sample for glucose testing at 2H post-administration; Fingerstick acceptable if serum unavailable.	1. Lab Results 2. Last year of Clinical Notes, plus additional notes, if relevant. 3. Current Growth Charts

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Morbid Obesity

Morbid Obesity & Dyslipidemias

Clinical & Laboratory Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. BMI >97th percentile prior to age 3 2. Darkening or Thickening of skin around neck, in axillae, around elbow, waist, knuckles. 3. Irregular Menses (If Obesity develops after age 3, and patient has no lab abnormalities, please refer to Healthy Lifestyle Clinic or other community weight management program) 4. Elevated fasting lipids: Cholesterol>250 mg/dL OR Triglycerides>350 mg/dL	First Available Appointment - If questions or additional concerns, please call office to discuss with MD.	1. Hemoglobin A1c 2. Serum Glucose screening - Impaired Fasting Glucose: 100-125 mg/dL - Impaired Glucose Tolerance: 2 HR post-OGTT* 140-199mg/dL *Performing 2 hour Oral Glucose Tolerance Test (8 years and over): - Fast for 8 hours/overnight - Dose: 1.75 grams of Glucola/kg of body weight (max dose 75 gms) - Consider serum sample for glucose testing at 2H post-administration; Finger-stick acceptable if serum unavailable. 3. Obtain serum TSH, fee T4 and total T4	1. Lab Results 2. Current Growth Chart 3. Last year of Clinical Notes, plus additional notes, as relevant

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Inadequate Growth

Short Stature

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
- Poor height velocity (or crossing percentiles) AND associated with severe headaches and/or blurry vision	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss treatment and to facilitate scheduling appointment*** **(901) 287-5437**	*May need testing, but please call to discuss* *May need urgent MRI of brain and pituitary for possible tumor*	1. Current Growth Chart 2. Lab Results 3. Last year of Clinical Notes, plus additional notes, as relevant
- Current height <3rd percentile for age without abnormal neurological findings OR - Crossing height percentiles on repeated growth measurements OR - Patient's height is >2 standard deviation below the mid-parental height[#].	First Available Appointment - If patient has abnormal endocrine lab results, please call on-call Pediatric Endocrinologist to discuss initial recommendations.	1. Mid-parental height[#] 2. CBC, CMP, ESR 3. TSH, free T4 (or Total T4) 4. Urinalysis 5. Celiac screen (Anti-tissue transglutaminase IgA, total IgA) 6. Insulin-like growth factor-I (IGF-1)* 7. Insulin like growth factor binding protein-3 (IGFBP-3)* 8. Bone Age 9. If female, consider Karyotype	1. Growth charts since early childhood. - If growth chart not available, provide clinic records with available height and weight measurements. 2. Last year of Clinical Notes, plus additional notes, as relevant 3. Laboratory results 4. If a bone age has been performed, please have parent bring a copy (CD or film) to visit for endocrinology reading and interpretation.
- Height >3rd percentile, within 2 Standard Deviations for Mid-Parental Height, but still concern for growth.	Referral may not be needed, based on workup. However, if MD/PNP still concerned, first available appointment	1. TSH and free T4 (or Total T4) - Consider additional testing as noted above, depending on symptoms.	1. Current Growth charts 2. Last year of Clinical Notes, plus additional notes, as relevant 3. Laboratory results 4. Bone Age imaging.

[#]Mid-parental height or target height calculated as below (Please measure parent's height whenever possible):
Boys (in inches): (Father's height in inches + Mother's height in inches +5)/ 2
Girls (in inches): (Father's height in inches + Mother's height in inches -5)/2
*Performed at Quest Diagnostics or Esoterix Laboratory.

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Poor Growth

Failure to Thrive

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
Failure to Thrive with Hypoglycemia	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss treatment and to facilitate scheduling appointment*** **(901) 287-5437**	-Please call to discuss, consider testing noted below.	1. Laboratory Results 2. Current Growth Charts - From early childhood, or as available 3. Last year of Clinical Notes, plus additional notes, as relevant
Height less than 3rd percentile AND Weight less than 3rd percentile	First Available Appointment - If patient has abnormal lab results, please call on-call Pediatric Endocrinologist to discuss initial recommendations.	1. TSH, free T4 2. CBC, CMP, ESR 3. Urinalysis 4. Celiac screening (Anti-tissue transglutaminase IgA, total IgA) 5. Insulin like growth factor binding protein-3 (IGFBP-3)* 6. Mid-Parental Height #	1. Laboratory Results 2. Current Growth Charts - From early childhood, or as available. 3. Last year of Clinical Notes, plus additional notes, as relevant
Height 3rd percentile or greater, but weight less than 3rd percentile	Referral may not be needed, based on workup as recommended above.	-Please consider referral to Gastroenterology	Please call Endocrinologist on-call for any questions.

#Mid-parental height or target height calculated as below (Please measure parent's height whenever possible):
Boys (in inches): (Father's height in inches + Mother's height in inches +5)/ 2
Girls (in inches): (Father's height in inches + Mother's height in inches -5)/2
*Performed at Quest Diagnostics or Esoterix Laboratory.

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Abnormal Puberty

Premature Adrenarche (Girls)

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
Girls <8 years of age without breast development but with: - Pubic hair or - Axillary hair or - Body odor AND WITH clitoral enlargement or growth acceleration.	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss treatment and to facilitate scheduling appointment*** **(901) 287-5437**	1. Bone age 2. 17-HydroxyProgesterone (Quest 17180, Esoterix 500270, LabCorp 500163)* 3. Pediatric Testosterone (Quest 15983, Esoterix 500286, Lab Corp 500159) 4. DHEA-S (Quest 402, Esoterix 500116, LabCorp 500156) 4. Androstenedione (Quest 17182, Esoterix 500030, LabCorp 500152/500175)	1. Laboratory Results 2. Current Growth Charts - From early childhood, or as available 3. Last year of Clinical Notes, plus additional notes, as relevant
Girls <8 years of age without breast development but with: - Pubic hair or - Axillary hair or - Body odor With NO clitoral enlargement or growth acceleration.	First Available Appointment - If patient has abnormal lab results, please call on-call Pediatric Endocrinologist to discuss initial recommendations.	- As noted above	1. Laboratory Results 2. Current Growth Charts - From early childhood, or as available 3. Last year of Clinical Notes, plus additional notes, as relevant

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Abnormal Puberty

Premature Puberty/Thelarche (Girls), >6 years

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
Girls <8 years of age with breast development and with: - Vaginal bleeding - Headaches or visual changes - Multiple Café-au-lait spots > 1.5 cm (McCune Albright Syndrome) - Progressive development, - Accelerated linear growth	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss treatment and to facilitate scheduling appointment*** **(901) 287-5473**	1. Bone age 2. TSH and free T4 (or Total T4) 3. Pediatric LH *(Quest 36086, Esoterix 500234, Lab Corp 502286) 4. Pediatric FSH *(Quest 36087, Esoterix 500192, LabCorp 502280) 5. Ultrasensitive Estradiol *(Quest 30289, Esoterix 500152, Lab Corp 500108)	1. Laboratory Results 2. Current Growth Charts - From early childhood, or as available 3. Last year of Clinical Notes, plus additional notes, as relevant
Girls 6-8 years of age with breast development but without the above additional findings.	First Available Appointment - If patient has abnormal lab results, please call on-call Pediatric Endocrinologist to discuss initial recommendations.	- As noted above	1. Laboratory Results 2. Current Growth Charts - From early childhood, or as available 3. Last year of Clinical Notes, plus additional notes, as relevant

*If unable to route these laboratory tests to the listed specialty laboratories through your clinic, these can be done at the child's clinic appointment. These hormonal assays should not be performed by routine adult assays since they are not as specific and sensitive as the pediatric assays.

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Abnormal Puberty

Premature Puberty/Thelarche (Girls), <6 years

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
Girls 2-6 years of age with breast development but without additional findings.	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss treatment and to facilitate scheduling appointment*** **(901) 287-5437**	1. Bone age 2. TSH and free T4 (or Total T4) 3. Pediatric LH *(Quest 36086, Esoterix 500234, Lab Corp 502286) 4. Pediatric FSH *(Quest 36087, Esoterix 500192, LabCorp 502280) 5. Ultrasensitive Estradiol *(Quest 30289, Esoterix 500152, Lab Corp 500108)	1. Laboratory Results 2. Current Growth Charts - From early childhood, or as available 3. Last year of Clinical Notes, plus additional notes, as relevant
Girls <2 years with breast development but without additional findings.	May not need referral	None recommended	Likely represents Benign Premature Thelarche. Please call On-Call Pediatric Endocrinologist with any concerns.

*If unable to route these laboratory tests to the listed specialty laboratories through your clinic, these can be done at the child's clinic appointment. These hormonal assays should not be performed by routine adult assays since they are not as specific and sensitive as the pediatric assays.

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Abnormal Puberty

Premature Adrenarche (Boys)

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
Boys <7 years of age without testicular enlargement (>4cc or 2.5cm) but with (one or more): - Pubic hair - Axillary hair - Body odor - Penile enlargement - Accelerated linear growth	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss treatment and to facilitate scheduling appointment*** **(901) 287-5437**	1. Bone age 2. 17-HydroxyProgesterone *(Quest 17180, Esoterix 500270, LabCorp 500163) 3. Pediatric Testosterone *(Quest 15983, Esoterix 500286, Lab Corp 500159) 4. DHEA-S *(Quest 402, Esoterix 500116, LabCorp 500156)	1. Laboratory Results 2. Current Growth Charts - From early childhood, or as available 3. Last year of Clinical Notes (including Tanner Stage), plus additional notes as relevant.
Boys <7-9 years of age with accelerated linear growth AND (one or more): - Pubic hair - Axillary hair - Body odor - Penile enlargement	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss treatment and to facilitate scheduling appointment*** **(901) 287-5437**	- As noted above	-As noted above
Boys <7-9 years of age with (one or more): - Pubic hair - Axillary hair - Body odor - Penile enlargement Without accelerated linear growth	First Available Appointment - If patient has abnormal lab results, please call on-call Pediatric Endocrinologist to discuss initial recommendations.	- As noted above	- As noted above

*If unable to route these laboratory tests to the listed specialty laboratories through your clinic, these can be done at the child's clinic appointment. These hormonal assays should not be performed by routine adult assays since they are not as specific and sensitive as the pediatric assays.

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Abnormal Puberty

Premature Puberty (Boys)

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
Boys <9 years with: - Testicular enlargement (>4ml or > 2.5cm) - Penile enlargement	**URGENT** ***Call On-Call Pediatric Endocrinologist ASAP to discuss treatment and to facilitate scheduling appointment*** **(901) 287-5437**	1. Bone age 2. TSH and free T4 (or Total T4) 3. Pediatric LH *(Quest 36086, Esoterix 500234, Lab Corp 502286) 4. Pediatric FSH *(Quest 36087, Esoterix 500192, LabCorp 502280) 5. Ultrasensitive Tesotosterone *(Quest 15983, Esoterix 500286, Lab Corp 500159)	1. Laboratory Results 2. Current Growth Charts - From early childhood, or as available 3. Last year of Clinical Notes, plus additional notes, as relevant

*If unable to route these laboratory tests to the listed specialty laboratories through your clinic, these can be done at the child's clinic appointment. These hormonal assays should not be performed by routine adult assays since they are not as specific and sensitive as the pediatric assays.

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Abnormal Puberty

Delayed Puberty

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
Boys: No Testicular Enlargement (>4ml or > 2.5cm) by age 14*	First Available Appointment - If patient has abnormal lab results or other concerning findings, please call On-Call Pediatric Endocrinologist to discuss.	1. Bone age 2. TSH and free T4 (or Total T4) 3. Pediatric LH *(Quest 36086, Esoterix 500234, Lab Corp 502286) 4. Pediatric FSH *(Quest 36087, Esoterix 500192, LabCorp 502280) 5. Ultrasensitive Tesotosterone *(Quest 15983, Esoterix 500286, Lab Corp 500159) - Girls: Ultrasensitive Estradiol *(Quest 30289, Esoterix 500152, Lab Corp 500108)	1. Laboratory Results 2. Current Growth Charts - From early childhood, or as available 3. Last year of Clinical Notes, plus additional notes, as relevant 4. Bone age film/CD
Girls: No Breast Development by age 13 OR No Menarche by age 15#	First Available Appointment - If patient has abnormal lab results or other concerning findings, please call On-Call Pediatric Endocrinologist to discuss.	1. Bone age 2. TSH and free T4 (or Total T4) 3. Pediatric LH *(Quest 36086, Esoterix 500234, Lab Corp 502286) 4. Pediatric FSH *(Quest 36087, Esoterix 500192, LabCorp 502280) 5. Ultrasensitive Estrogen *(Quest 15983, Esoterix 500286, Lab Corp 500159)	-As noted above

*Boys with halted pubertal development (Testicular volume >4cc but 6cc or less for >12 months) and gynecomastia, consider Klinefelter syndrome
#Girls with no menarche by 15 and short stature, consider Turner Syndrome.

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Bone and Calcium Disorders

Hypocalcemia & Hypercalcemia

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
- Symptomatic hypocalcemia or hypercalcemia OR - Serum Total Calcium <7.0 mg/dL - Ionized calcium <0.9 mmol/L OR - Serum Total Calcium >12.0 mg/dL - Ionized Calcium >1.6mmol/L	**Urgent Referral: Call On-Call Pediatric Endocrinologist ASAP to discuss management – (901) 287-5437**	1. Serum calcium 2. Basic metabolic panel (BMP) 3. Serum phosphorus 4. Serum magnesium 5. Serum alkaline phosphatase 6. Serum intact PTH 7. Serum 25-OH Vitamin D 8. X-rays of either wrist/knee/ankle for rickets	1. Lab Results 2. All Relevant Imaging Studies 3. Current Growth Chart 4. Last year of Clinical Notes, plus additional notes as relevant 4. X-rays
- Nutritional rickets - Consider referral: - Hypophosphatemia + rickets with normal or elevated 25-OH Vitamin D level - Low alkaline phosphosphatase for age - Minimal trauma fracture of vertebral bodies or minimal trauma fracture of > 2 long bones	**Call On-Call Pediatric Endocrinologist to discuss management – (901) 287-5437**	Same as above	1. Lab Results 2. Current Growth Chart 3. Last year of Clinical Notes, plus additional notes as relevant 4. X-rays

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call

Pediatric Endocrinology Referral Guidelines
Adrenal Insufficiency

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
Signs and symptoms of adrenal insufficiency are often non-specific. These may include: 1. Chronic or excessive fatigue 2. Muscle weakness 3. Loss of appetite 4. Weight loss 5. Recurrent abdominal pain, nausea, vomiting or diarrhea 6. Hypotension 7. Salt-craving 8. Hypoglycemia 9. History of long term use of glucocorticoids or high-dose use of inhaled steroids	If documented Low Am Cortisol: **Call On-Call Pediatric Endocrinologist ASAP to discuss management – (901) 287-5437**	1. Comprehensive Metabolic Panel 2. Serum glucose 3. AM Cortisol and ACTH (before 9 am) - fasting and drawn as venous sample 4. If primary adrenal disease is suspected consider also obtaining: a. Plasma renin b. Plasma aldosterone	1. Lab Results 2. Current Growth Chart 3. Last year of Clinical Notes, plus additional notes as relevant

For Scheduling Appointments, please call: (901) 287-7337 or by web at: lebonheur.org/referrals
Please fax all requested medical records to: (901) 287-6650
To speak with an On-Call Endocrinologist, please call: (901) 287-5437 and ask for the Endocrinologist On-Call