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Congenital Hypothyroidism

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

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Acquired Hypothyroidism (Primary)

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. Elevated TSH	First Available Appointment	1. Current TSH	1. Lab Results
		2. Current Free T4 or Total T4	2. Current Growth Chart
2. Low Free or Total T4	- If patient has abnormal thyroid		3. Last year of Clinical Notes, plus
	function testing and	- If TSH is <10 and free or total T4	additional notes if relevant
	symptomatic, please call on-call	is normal, obtain Anti-Thyroglobulin	
	Pediatric Endocrinologist to	and Anti-TPO titers, and repeat TSH	
	discuss initial recommendations.	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.	

Acquired Hypothyroidism (Central)

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

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Neonatal Hyperthyroidism

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

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Acquired Hyperthyroidism

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

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Goiter

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

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Thyroid Nodule

Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
1. Nodule > 1 cm on exam	URGENT	1. Current TSH	1. Lab Results
OR	*Call On-Call Pediatric	2. Current Free T4 or Total T4	2. Current Growth Chart
Increasing size of	Endocrinologist ASAP to		3. Past year of Clinical Notes, plus
nodule on thyroid	discuss management and	- Please consider obtaining Anti-	additional notes if relevant
ultrasound	facilitate scheduling*	Thyroglobulin and Anti-TPO titers	4. All relevant imaging studies
	(901) 287-5437		(CD/film)
2. Family History of		- Thyroid Ultrasound (If not already	
Thyroid Cancer or Multiple		performed)	If Abnormal Thyroid Function tests
Endocrine Neoplasia			noted, please see Hypothyroid or
			Hyperthyroid sections.
1 Nodulo 1 om	First Available Appointment	1 Current TCII	1. Lab Dagulta
	First Available Appointment		
	If augstions or additional	2. Current Free 14 or Total 14	
	•	Diago consider obtaining Anti	
3	•	_	
uiti asouriu	discuss with MD.	Thyroglobullin and Anti-TPO titers	4. All relevant imaging studies
		- Thyroid Illtrasound (If not already	If Abnormal Thyroid Function tests
		1	1
		performedy	
Nodule <1 cm OR 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)	 Lab Results Current Growth Chart Past year of Clinical Notes, additional notes if relevant All relevant imaging studies If Abnormal Thyroid Function noted, please see Hypothyroid Hyperthyroid sections.

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

^{**}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

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

Hypoglycemia

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

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

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Pediatric Endocrinology Referral Guidelines Morbid Obesity



Morbid Obesity & Dyslipidemias

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

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Pediatric Endocrinology Referral Guidelines Inadequate Growth



Short Stature

Jiloi t Statui C			
Clinical Findings	Referral Urgency	Pre-Referral Testing	Referral Requirements
- Poor height velocity (or	URGENT	*May need testing, but please call	1. Current Growth Chart
crossing percentiles) AND	*Call On-Call Pediatric	to discuss*	2. Lab Results
associated with severe	Endocrinologist ASAP to discuss	*May need urgent MRI of brain	3. Last year of Clinical Notes, plus
headaches and/or blurry vision	treatment and to facilitate	and pituitary for possible tumor*	additional notes, as relevant
	scheduling appointment* (901) 287-5437		
- Current height <3rd percentile	First Available Appointment	1. Mid-parental height#	Growth charts since early
for age without abnormal		2. CBC, CMP, ESR	childhood.
neurological findings	- If patient has abnormal endocrine lab	3. TSH, free T4 (or Total T4)	- If growth chart not available,
OR	results, please call on-call Pediatric	4. Urinalysis	provide clinic records with available
- Crossing height percentiles on	Endocrinologist to discuss initial	5. Celiac screen (Anti-tissue	height and weight measurements.
repeated growth measurements	recommendations.	transglutaminase IgA, total IgA)	2. Last year of Clinical Notes, plus
OR		6. Insulin-like growth factor-I	additional notes, as relevant
- Patient's height is >2 standard		(IGF-1)*	3. Laboratory results
deviation below the mid-		7. Insulin like growth factor	4. If a bone age has been
parental height [#] .		binding protein-3 (IGFBP-3)*	performed, please have parent
		8. Bone Age	bring a copy (CD or film) to visit for
		9. If female, consider Karyotype	endocrinology reading and
		4 7011 16 74 (7 1 1 7 1	interpretation.
- Height >3rd percentile, within	Referral may not be needed, based on	1. TSH and free T4 (or Total T4)	1. Current Growth charts
2 Standard Deviations for Mid-	workup. However, if MD/PNP still	- Consider additional testing as	2. Last year of Clinical Notes, plus
Parental Height, but still	concerned, first available appointment	noted above, depending on	additional notes, as relevant
concern for growth.		symptoms.	3. Laboratory results4. Bone Age imaging.
#			4. Durie Aye imaying.

^{*}Mid-parental height or target height calculated as below (Please measure parent's height whenever possible):

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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.

Pediatric Endocrinology Referral Guidelines Poor Growth



Failure to Thrive

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

^{*}Mid-parental height or target height calculated as below (Please measure parent's height whenever possible):

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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.



Premature Adrenarche (Girls)

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

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Premature Puberty/Thelarche (Girls), >6 years

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

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Premature Puberty/Thelarche (Girls), <6 years

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

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Premature Adrenarche (Boys)

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

^{*}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.

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Premature Puberty (Boys)

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

^{*}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: <u>lebonheur.org/referrals</u>

Please fax all requested medical records to: (901) 287-6650



Delayed Puberty

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

^{*}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.

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Pediatric Endocrinology Referral Guidelines Bone and Calcium Disorders



Hypocalcemia & Hypercalcemia

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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	 Lab Results All Relevant Imaging Studies Current Growth Chart Last year of Clinical Notes, plus additional notes as relevant 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

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Pediatric Endocrinology Referral Guidelines Adrenal Insufficiency



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

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