

Child With Early Pubic Hair/Mature Body Odor

Suggestive history and physical findings	Initial laboratory and/or radiologic work-up can include:	When to refer	Items useful for consultation	Additional information
<p><u>Symptoms/signs:</u> Before age 8 yrs (female) or 9 yrs (male):</p> <ul style="list-style-type: none"> • Pubic hair (coarse, curly) • Axillary hair • Body odor • Absence of breast tissue development, vaginal discharge (in girls) or penile enlargement, scrotal development, testicular enlargement (in boys) <p>Other considerations:</p> <ul style="list-style-type: none"> • Absence of growth acceleration • Family history of early puberty • Exogenous exposures to androgenic hormones • Increased prevalence with obesity and specific ethnic groups <p>Differential Diagnosis</p>	<p><u>Blood tests:</u></p> <ul style="list-style-type: none"> • DHEAS <p><u>Radiologic studies:</u></p> <ul style="list-style-type: none"> • Bone age x-ray <p><u>Other tests to consider after consultation with Pediatric Endocrinologist:*</u></p> <ul style="list-style-type: none"> • 17OH progesterone • LH • FSH • Total testosterone <p>*Pubertal laboratory tests should be obtained in the <u>early AM</u> using <u>sensitive pediatric assays only</u></p>	<p><u>Urgent:</u></p> <ul style="list-style-type: none"> • Significantly elevated DHEAS • Bone age greater than 2 SD above chronologic age • Signs of rapid virilization <p><u>Routine:</u></p> <ul style="list-style-type: none"> • normal labs and bone age within 2 SD of the norm for chronologic age <p>Find a Pediatric Endocrinologist</p>	<p>Previous growth data/growth charts</p> <p>Pertinent medical records</p> <p>Recent laboratory and radiologic studies (including actual copy of bone age)</p>	<p>Additional Information</p> <p>Premature Adrenarche: A Guide for Families</p> <p>References</p>

Differential diagnosis of early pubic hair, body odor:

Normal variants:

Premature adrenarche

Benign pubic hair of infancy

Fine, straight to curly hair, normal laboratory findings, normal linear growth, minimal to no progression of pubic hair growth, pubic hair typically falls out by 2 years of age

Adrenal:

Congenital adrenal hyperplasia

Exogenous androgen exposure

Adrenal tumor

Additional Information:

- A thorough medical history, physical examination, and appropriate laboratory assessment are essential to be able to rule out other underlying medical conditions associated with early pubic hair/body odor.
- Most presentations of early pubic hair or body odor will be benign. However, there is a higher risk of true pathology with pubic hair and/or body odor development in children of younger ages.
- DHEA-S levels are often mildly elevated for age.
- There has been an association of early adrenarche and subsequent development of polycystic ovarian syndrome (PCOS) in adolescent girls.
- Obesity may also predispose to early adrenarche.

Suggested References and Additional Reading:

- Kaplowitz P, Bloch C. Evaluation and Referral of Children with Signs of Early Puberty. Pediatrics 2016;137(1):e20153732. <https://pediatrics.aappublications.org/content/137/1/e20153732>

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