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## **HIRSUTISM**

### **About Your Diagnosis**

Hirsutism means excess male-pattern body hair growth in women. Hirsutism is caused by increased secretion of androgens or increased sensitivity of hair follicles to androgens. Androgens, usually thought of as male hormones, are produced by the adrenals and ovaries in women as well. Androgens are important for normal pubertal development in women.

Excess circulating androgens may arise from either an adrenal, an ovarian, or an outside source. Adrenal causes of excess androgens include an adrenal tumor or congenital adrenal hyperplasia (CAH). Congenital adrenal hyperplasia is an inherited enzymatic defect that interrupts the normal production of cortisol. The body shunts the extra cortisol precursors to a different metabolic pathway, producing extra androgens.

Ovarian sources include an ovarian tumor or polycystic ovarian syndrome (PCOS). Polycystic ovarian syndrome is associated with irregular menstrual periods, obesity, and insulin resistance in the form of diabetes.

Outside sources of androgens include anabolic steroids taken for muscle development, or other medications with androgen effects such as phenytoin, oral steroids, diazoxide, progestins, cyclosporine, and minoxidil.

Increased sensitivity of hair follicles may also occur in certain endocrine disorders such as Cushing's syndrome or acromegaly. Idiopathic hirsutism is a diagnosis for individuals who have excess body hair from an unknown cause.

Excess body hair is extremely common, occurring in 5% to 10% of all women. Very few seek medical attention. Only a small minority have a tumor. Increased body hair is a normal hereditary trait in many Caucasian women of Mediterranean origin.

Hirsutism is detected by examination of excess hair. Next, androgens levels are measured in the blood. Two important hormones are testosterone and dehydroepiandrosterone sulfate (DHEAS). A suppression test with dexamethasone is administered for 5—8 days if these hormones are elevated. Elevated DHEAS levels arise from the adrenals. If DHEAS remains elevated after this test, an adrenal tumor is the most likely cause of the hirsutism.

Increased testosterone may arise from either the adrenals or the ovaries. If the testosterone remains elevated after dexamethasone suppression, an ovarian disorder is the culprit. Very high levels of testosterone are suggestive of a tumor. An ultrasound of the ovaries is performed to determine whether a tumor is present. Usually, the cause is not a tumor, but PCOS.

Initially elevated DHEAS or testosterone levels that are suppressed with dexamethasone suggest CAH as the cause of the hirsutism. Although present since birth, this enzymatic defect may not become clinically apparent until young adulthood in some cases.

Most hirsutism may be improved with therapy; however, it may take months to be effective.

## **Living With the Diagnosis**

Symptoms include new, thick, dark, curly hair in a male pattern on the face or beard, anterior chest, upper back, or lower abdomen spreading up to the umbilicus. Some hair on legs, arms, upper lip, or around the breast is normal. Rapid growth of hairs associated with balding or deepening of the voice requires careful medical evaluation.

Hirsutism may be associated with muscle development, a change in sexual desire, frontal balding, deepening of voice, or infertility.

## **Treatment**

Treatment depends upon the cause of the hirsutism. Patients with normal androgen levels are treated with bleaching, shaving, or electrolysis. Many of these patients may also benefit from birth control pills. If an adrenal or ovarian tumor is diagnosed, surgery is performed. Polycystic ovarian syndrome is best treated with birth control pills to decrease ovarian androgen production. Congenital adrenal hyperplasia is best treated by dexamethasone, usually given as a single dose at bedtime, which decreases adrenal androgen secretion. Medications causing hair growth should be stopped. Cushing's syndrome or acromegaly should be treated. Antiandrogen medications such as cimetidine, cyproterone acetate, or spironolactone may also be prescribed. Spironolactone may cause nausea, fatigue, headache, or high potassium levels. It must not be used in pregnant women because it can interfere with normal testicle and penis development in male fetuses.

## **The DOs**

- Discuss your goals for treatment with your doctor at your first visit.
- Have blood androgen levels measured.
- Tell your doctor if you have shaved, plucked, or bleached your hair, or if you have received electrolysis.
- Tell your doctor if you desire to become pregnant.
- Consider bleaching, shaving, and electrolysis.

## **The DON'Ts**

- Don't forget, hirsutism is a common condition.
- Don't expect complete or immediate resolution of your hirsutism.
- Don't take spironolactone if you plan to become pregnant.