

The Hormone Foundation's Patient Guide to the Evaluation and Treatment of Hirsutism in Premenopausal Women

Why were the guidelines written?

This patient guide is based on The Endocrine Society's Clinical Guidelines written to help physicians who are evaluating and treating hirsutism in premenopausal women. Hirsutism refers to excessive growth of *terminal* hair (the kind of hair that grows on your head) in areas where women typically grow fine ("peach fuzz") hair. The distribution of hair follows a male pattern, appearing on the face, back, chest, etc. Hirsutism can be mild, moderate, or severe.

Hirsutism can have a major impact on a woman's sense of well-being. Even isolated, mild hirsutism can be emotionally distressing to some women. Any woman who is troubled by hirsutism should not hesitate to ask her doctor about treatment options. The Clinical Guidelines make recommendations about those treatment options.

How were the guidelines developed?

The Clinical Guidelines were developed after an extensive review of the best research studies related to the evaluation and treatment of hirsutism in premenopausal women. An international expert panel of The Endocrine Society examined studies that were published in "peer-reviewed" medical journals (that is, studies that were evaluated by other scientists). The panel's "recommendations" and "suggestions" were reviewed and approved by several committees and, finally, by the general membership of The Endocrine Society. No funding for the guidelines came from any pharmaceutical or medical device company.

What causes hirsutism?

Women naturally produce male hormones (androgens). The development and severity of hirsutism generally depends upon the level of male hormones in the blood and the sensitivity of the hair follicle.

When a woman has more male hormones than normal, it is most often due to a disorder called *polycystic ovary syndrome* (PCOS). In addition to hirsutism, women with PCOS may have irregular or absent menstrual periods and/or infertility. Acne, obesity, and an increased risk of diabetes are also common in women with PCOS.

Hirsutism may be caused by other disorders of male hormone overproduction, but these are not common. Medications such as anabolic steroids that contain male hormones can cause hirsutism.

When a woman has hirsutism but does not have high levels of androgens, this is called "idiopathic hirsutism" because the specific cause of the excessive hair growth cannot be identified.



You and your doctor should be partners in your care. Discuss your treatment options and what you can expect from them.

When should androgen levels be measured in hirsute women?

The Clinical Guidelines recommend not measuring androgen levels in women with mild hirsutism and no other symptoms because results are unlikely to show any medical disorder. The Clinical Guidelines suggest measurement of androgen levels in women with moderate or severe hirsutism, or any hirsutism that begins suddenly, grows rapidly, or is associated with other symptoms like irregular or absent menstrual periods, or obesity (especially at the waist).

How is hirsutism managed or treated?

Before consulting a doctor about their hirsutism, many women first try cosmetic measures, such as plucking, shaving, or bleaching to hide or remove hair. If a woman feels the cosmetic measures are not adequate, the Clinical Guidelines suggest either medication or direct hair removal methods (laser or electrolysis). These can be used either separately or in combination. In deciding between these options, a patient



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should take into account her own preferences, whether or not direct hair removal is possible in the area(s) of concern, as well as accessibility and affordability of treatments.



Hirsutism is usually an ongoing problem but it can be managed in several effective ways.

Cosmetic Measures

Bleaching with products containing hydrogen peroxide and sulfates masks the presence of undesired hair. Side effects include irritation, itching, and possible skin discoloration.

Temporary (lasting a few days to weeks) methods of hair removal include removing hair from the skin surface (*depilation*) and extracting hairs in the follicles (*epilation*). Shaving is a popular depilation method that removes hair down to just below the surface of the skin. Shaving does not affect the growth, but leaves a blunt tip rather than the tapered tip of uncut hair. This makes the hair look thicker. Chemical depilatory agents are also commonly used to dissolve the hair. Most depilatories contain sulfur and have an unpleasant odor. Skin irritation can occur.

Epilation methods, such as plucking or waxing, are relatively safe and inexpensive, but can be painful. Scarring, swelling, and particularly in women of color, skin darkening may occur.

Medication

The Clinical Guidelines recommend treatment with birth control pills for most hirsute women who are unsuccessfully treated with cosmetic measures. These medications lower levels of male hormones. Between 60% and 100% of women with hirsutism will notice improvement over a period of 6 to 12 months. Birth control pills can also help establish regular menstrual cycles in hirsute women with irregular or absent menstrual periods.

Another option is drugs that block the action of male hormones (anti-androgens) but these have limitations. Because they can cause birth defects, the Clinical Guidelines recommend against their use unless adequate contraception is used. The choice between birth control pills and anti-androgens depends on patient preferences regarding effectiveness, side effects, and costs.

Because of various side effects and/or not working well, the Clinical Guidelines suggest **against** the use of flutamide, topical anti-androgen creams, and insulin-lowering drugs such as rosiglitazone, pioglitazone, or metformin, as therapy for hirsutism.

The Clinical Guidelines suggest a trial of at least 6 months before making changes in dose, changing medication, or adding medication.

Direct Hair Removal

For women who choose hair removal therapy, the Clinical Guidelines suggest light-source-assisted hair reduction (*photoepilation*), which is widely used in the treatment of unwanted hair. Photoepilation methods include lasers and non-laser light sources, such as intense pulsed light. Several photoepilation devices are approved by the U.S. Food and Drug Administration for “permanent hair reduction” (not “permanent hair removal”). The choice of a specific photoepilation method depends on a woman’s skin and hair color. While this type of hair removal is long lasting and large areas of skin can be treated at the same time, treatment sessions are expensive.

For women undergoing photoepilation therapy who desire a faster initial response, the Clinical Guidelines suggest adding *eflornithine* cream during treatment. This cream slows hair growth but doesn’t prevent it. For women with known excessively high androgen levels who choose hair removal therapy, the Clinical Guidelines suggest also taking medication such as birth control pills to minimize hair regrowth.

Electrolysis has been available for many years for the management of unwanted hair. With this technique, a fine needle is inserted into the hair follicle and an electrical current is applied. Electrolysis can be painful and time-consuming because it treats each hair individually. It is a cost-effective option for small areas of hirsutism. It can be used on any skin or hair color. Possible side effects include skin swelling and redness followed by changes in skin color and/or scarring.

What can you do to help your treatment process?

You and your doctor should be partners in your care. It is important that you provide your doctor with a full medical history, including use of prescription and non-prescription medications. You should describe any symptoms, such as menstrual irregularities, you have had in addition to excessive hair growth. Discuss your treatment options and what you can expect from them. Whatever treatment approach you take, you should be aware that hirsutism is usually an ongoing problem. It can be managed but may not be permanently resolved.

Note that women with hirsutism who are trying to conceive or are already pregnant cannot take medications used to treat hirsutism, and should ask their doctors about the safety of other hair removal methods during pregnancy.

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