



**University Hospitals Birmingham**  
NHS Foundation Trust



# **PolyCystic Ovary Syndrome (PCOS), skin and hair**

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One of the reasons that women with PCOS may seek help from GPs or hospital clinics is because of problems with skin or hair, which can make them unhappy with their appearance or lead to low self-confidence. Women with PCOS have higher levels of male hormones, also called androgens, than other women, though these are much lower levels than those found in men.

## How can androgens affect the skin?

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### Androgen excess can affect the skin in several ways:

1. The **growth of dark, coarse body hair** (called terminal hair) in parts of the body where hair in women is usually light and fine; doctors call this **“hirsutism”**.
2. Hair loss from your scalp (“Alopecia”), which could either be general thinning or loss of hair from around your forehead, called frontal balding. Some women may be concerned about this. Alopecia also has a number of other causes.
3. Acne may become more persistent and difficult to treat if you have PCOS. This is from increased skin oil production which is another way that androgen excess affects the skin.
4. There is also an association between having PCOS and a painful skin condition called Hidradenitis suppurativa which causes abscesses and scarring on the skin. More information can be found here **[www.nhs.uk/conditions/hidradenitis-suppurativa](http://www.nhs.uk/conditions/hidradenitis-suppurativa)**

## How can the growth of unwanted hair be assessed?

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In UK society, it is normal for women to want to have as little hair on their bodies as possible, which may make you feel that your unwanted hair is not normal when it may be normal for you. The hair growth that is linked to androgens, and therefore PCOS, is usually darker and coarser than other hair on your body, like you might see in your armpits or in the pubic area and on a man in the beard area. This type of hair is called terminal hair. If you are concerned about unwanted hair

on your body, please check that it:-

1. is darker and coarser (or thicker) than other hair on your body, like you might see in your armpit or in a man's beard area.
2. is not simply dark and fine hair like other members of your family.
3. is affecting parts of your body other than your forearms and lower legs.

If you have checked hair on your body and believe it meets the description, please speak to your GP who will arrange an appointment for you with a specialist. You can also use the chart below to score your hair. If you scored 8 or more, this is evidence that you have what is called hirsutism. If you scored 3 or 4 in one area this is also a sign you may have hirsutism and you may still want to consider treatment. You can also score zero if you have no hair growth at all.

Upper Lip	Sideburn Area	Chin	Lower Jaw & Neck
			
Small number of terminal hairs over upper lip & outer lip border <b>1</b>	Sparse terminal hairs <b>1</b>	Sparse terminal hairs or chin <b>1</b>	Sparse terminal hair over lower jaw & upper neck <b>1</b>
Thin moustache covering less than 50% of upper lip or at the outer border <b>2</b>	Sparse terminal hairs with small thickened areas <b>2</b>	Sparse terminal hairs with small thickened areas <b>2</b>	Sparse terminal hairs with small thickened areas <b>2</b>
Moustache covering 50% from outer margin of the lip or 50% the lip height <b>3</b>	Light hair growth over sideburn area <b>3</b>	Entire chin covered with light growth <b>3</b>	Entire area covered with light growth <b>3</b>
Moustache covering most of upper lip & crossing the midline lip <b>4</b>	Thick growth over sideburn area <b>4</b>	Entire chin covered with heavy growth <b>4</b>	Entire area covered with heavy growth <b>4</b>

Image courtesy: Wilma F. Bergfeld, MD, FAAD, Senior Dermatologist & Emeritus Director Dermatopathology, Director, Dermatopathology Fellowship, Departments Of Dermatology and Pathology, Cleveland Clinic, 9500 Euclid Ave, A61, Cleveland, Ohio 44195

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## How can the growth of unwanted hair be managed?

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While for some women lifestyle change and weight loss may help in the long run, many will want to consider other options such as direct hair removal and medication. Opting for medication is recommended even if you also opt for other forms of direct hair removal including laser treatment or electrolysis, as the medication can help to prevent regrowth.

### Medications:

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#### Important points:

- 1. You should not get pregnant on any of the medications (excluding the combined oral contraceptive pill which should stop you getting pregnant) as it can affect the physical development of an unborn baby boy.**
2. All medications take some time to work so you need to be patient. It may take six to nine months before you start seeing a beneficial effect.
3. All the medications work but working may mean that you notice the hair is thinner or you have to remove it less often, rather than the hair issues completely disappearing.
4. The problem with unwanted hair will return when you stop the medication treating it unless other aspects that may affect the hormone imbalance such as weight changes.

### Combined Oral Contraceptive Pill

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The combined oral contraceptive pill (containing oestrogen and progesterone) is the main prescribed medication. This is because it is effective and can also help with irregular periods and prevent pregnancy, which must be avoided when having treatment for unwanted hair.

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## How does it work?

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1. By stopping your own hormone system from making androgens.
2. It also makes the body make more of a protein called SHBG which attacks the androgens and prevents them from acting on the hair follicles.

Oral contraceptives consist of an oestrogen component and a progesterone component. As an alternative, you can also take a pill containing a progesterone component which acts against male hormones. Pills that can be used for this purpose are Dianette and Yasmin. Yasmin contains a lower dose of oestrogen than Dianette and therefore reduces the risk of oestrogen-related side effects.

## What are the side effects?

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The main risk of taking the combined oral contraceptive pill is the risk of blood clots in your leg veins or lungs. This risk is higher in those who are older, more overweight, smoke, have diabetes or hypertension and have a family history of clots. Women with migraines may not be able to take the combined pill. Common side effects that you may experience can include nausea, bloating, breast tenderness, headaches, mood swings, and occasionally bleeding in between your periods. These can be discussed with your healthcare provider when considering treatment and these will be tailored to your own needs.

## Antiandrogens

This can be taken alongside the combined oral contraceptive pill. All antiandrogens described below have a variety of uses, including treatment for women with PCOS. These drugs are particularly useful if the woman suffers from male pattern hair loss from the scalp (“alopecia”) and also in severe cases of acne not responsive to other medication.

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All anti-androgen medications described below should not be taken during pregnancy as they can affect the development of unborn baby boys.

### **Cyproterone acetate 50–100 mg once daily on days 5-15 of the menstrual cycle**

This is a progesterone-like hormone that blocks androgen action. It is well tolerated and side effects are rare. The only monitoring required is of liver function occasionally.

### **Spironolactone 100–200 mg a day in divided doses**

This drug blocks androgen action and to a degree also the action of the blood pressure and salt regulating hormone aldosterone. This medication is normally used as a diuretic, so it may make you urinate more. Another potential side effect is dizziness. The drug is generally well tolerated, but should not be used if your kidneys are impaired or you are on a combined oral contraceptive pill containing the hormone drospirenone, such as Yasmin, as drospirenone also blocks aldosterone action, which could increase the risk of increased potassium levels in your blood. Your kidney function should be checked every now and then to monitor potassium levels. It can also give you some random menstrual bleeding if you are not on the combined oral contraceptive pill as it partially blocks progesterone action.

### **Finasteride 2.5–5 mg a day**

This drug works by blocking the activation of the testosterone to the most powerful male hormone, dihydrotestosterone, thereby alleviating the consequences of androgen excess. This treatment is usually well tolerated with no adverse effects. A lower dose of 1mg is used in hair loss.

### **Other treatments for hair loss and acne:**

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For those with hair loss, topical minoxidil may help, although it is not

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available on the NHS.

For those with acne, topical therapy containing benzoyl peroxide, retinoids and/or antibiotics may be suitable. Some people may also require antibiotics for at least three to six months to help with more severe acne. Oral isotretinoin may be considered in those with persistent and severe acne that is not responding to the treatments outlined above. You will find useful information on the British Association of Dermatologists' website ([www.bad.org.uk](http://www.bad.org.uk)) including information about acne [www.acnesupport.org.uk/](http://www.acnesupport.org.uk/) or that of the British Skin Foundation [www.britishskinfoundation.org.uk](http://www.britishskinfoundation.org.uk)

## Hair removal:

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This is often not available on the NHS, so all methods will have a cost attached:

The ideal choice for hair removal varies depending on hair colour: for those with brown or black hair, the best option is a laser treatment.

- for those with white or blonde hair, the best option is electrolysis.

For more information about either laser or electrolysis contact Birmingham Regional Skin Laser Centre on 0121 507 6637/6639 Monday–Friday, 9am–4pm ([www.swbh.nhs.uk/gps/laser-treatments-available-at-birmingham-skin-centre/](http://www.swbh.nhs.uk/gps/laser-treatments-available-at-birmingham-skin-centre/))

## **Other forms of hair removal which offer less long term benefit are:**

- Shaving which removes the hair at the level of the skin. It doesn't change the shape of the hair in any way but it can give the appearance of looking thicker because it has been cut.
- Plucking, waxing, threading, or mechanical devices (epilators) removes the hair from just above the root where the hair grows from, and does not result in a blunt end as shaving does. It is relatively safe but does cause some discomfort. Scarring and irritation can cause some changes in the colour of the skin

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particularly in women with darker skin.

- Creams containing chemical agents that dissolve hair are available. Once again, this may irritate the skin (especially on the face) which can also cause some changes in colour.

### **Other options include:-**

- Hair bleaching which may mask the appearance of darker hair. Once again, this may irritate the skin (especially on the face) which can cause some changes in colour.
- Vaniqa (eflornithine cream) is only for use on the face. It reduces the rate of hair growth and the appearance of facial hair with noticeable results in 6–8 weeks. Side effects include skin irritation and acne. Speak to your GP about it.

## **How to make the right decision?**

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Several concerns may need addressing when you first come to a hospital clinic with a diagnosis of PCOS. These include problems with excess weight, periods, hair and/or fertility. The doctor or nurse will identify your priorities and will talk through the options to try and help you make the right decision about treatment. It is important to make one change at a time including lifestyle changes, with or without starting one medication, as this allows you to make the lifestyle change stick and monitor the effect of medication.

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