



## **MELASMA**

### **What are the aims of this leaflet?**

This leaflet has been written to help you understand more about melasma. It tells you what it is, what causes it, what can be done about it and where you can find out more about it.

### **What is melasma?**

Melasma, also called 'chloasma' and 'pregnancy mask', is a common skin condition of adults in which brown or greyish patches of pigmentation (colour) develop, usually on the face. The name comes from *melas*, the Greek word for black, or *cholas*, from the word green-ish. It is more common in women, particularly during pregnancy (when up to 50% of women may be affected). Sometimes men may also be affected. Melasma is more common in people of colour and those who tan very quickly but can occur to anyone.

Melasma usually becomes more noticeable in the summer and improves during the winter months. It is not an infection; therefore, it is not contagious, and it is not due to an allergy. It is not cancerous and will not develop into skin cancer.

### **What causes melasma?**

The exact cause is not known, but it is thought to be because of pigment-producing cells in the skin (melanocytes) producing too much pigment (melanin). Several factors can contribute to developing melasma, including pregnancy and using hormonal drugs such as birth control pills and hormone replacement. Rarely, other medical problems that affect hormones (such as thyroid problems) may cause melasma, as well as some other medications, such as anti-epileptics.

Exposure to ultraviolet (UV) light from the sun and the use of sun-beds or phototherapy can trigger melasma or make it worse.

### **Is melasma hereditary?**

Melasma is more common in people with a family history of the condition, but it is not hereditary.

### **What does melasma look like?**

Melasma appears darker than the surrounding skin- affecting the cheeks, forehead, upper lip, nose and chin. It can also affect other areas of the body exposed to the sun, such as the forearms and neck. Areas of melasma are flat, not raised.

### **What are the symptoms of melasma?**

Most patients are upset by the appearance of melasma, but it has no physical symptoms. Affected skin is not itchy or painful.

### **How is melasma diagnosed?**

Melasma is usually easily recognised by doctors from its appearance. Occasionally, your dermatologist may suggest that a small sample of skin (numbed by local anaesthetic) is removed at the hospital for examination under the microscope (a biopsy) in order to exclude other conditions.

### **Can melasma be cured?**

No, at present there is no cure for melasma, but there are several treatment options that may improve the appearance. If melasma occurs during pregnancy, it may go away a few months after delivery and treatment may not be necessary- though it may come back during another pregnancy. Hydroquinone and retinoid creams should be avoided in pregnancy as they could harm the foetus. Even if it is treated, melasma often returns after stopping the treatments.

### **How can melasma be treated?**

Melasma treatments fall into the following categories and can be used together:

- Avoiding known triggers, such as birth control pills and hormone therapy.
- Avoiding the sun and using sun-blocking creams.
- Skin lightening creams.
- Procedures such as chemical peels, microneedling and laser therapy.
- Skin camouflage.

### ***Sun protection***

Skin affected by melasma darkens more than the surrounding skin when exposed to light, so sun-avoidance and sun-protection are important (see the 'top sun safety tips' below for more information).

One of the most important things you can do to prevent melasma worsening is protecting yourself from UV radiation. This means avoiding the sun, wearing a wide-brimmed hat when you are outside and wearing broad-spectrum sun cream (SPF 30 or above, with a high UVA rating). The higher the SPF the more effective it will be. Avoid using sun-tanning beds. Protecting your skin from the sun will also help the below treatments be more effective.

### ***Skin lightening creams***

Hydroquinone is a medicine that prevents pigment cells in the skin from producing melanin and is commonly used to treat melasma. Hydroquinone creams may cause skin irritation, and they should only be used for a few weeks at a time to prevent over-lightening of the skin. Hydroquinone can only be prescribed by doctors and may occasionally cause the skin to become darker.

Retinoid creams, usually used to treat acne, and some types of acid cream (such as azelaic acid, ascorbic acid and kojic acid) can help improve the appearance of melasma but can also cause skin irritation. Steroid creams can also be useful and are often mixed with the above chemicals to help prevent skin irritation.

Some skin-lightening creams contain a combination of two or three ingredients to make them more effective. Skin lightening creams must only be used when prescribed, and under medical supervision to reduce the risk of side effects.

### ***Procedures***

Chemical peels can improve melasma by removing the outermost cells of the skin that contain the pigment. Chemical peels should be undertaken by an experienced practitioner as they could make the pigmentation worse, lighten the skin too much or cause scarring.

Microneedling is a process where the skin is repeatedly punctured with tiny needles to help creams penetrate deeper into the skin. This may result in pain, swelling, infections and scarring (including keloids).

Some types of laser also remove the outer layer of skin, whereas others target the pigment-producing cells (melanocytes). The success of laser therapy is variable, and there may be risks associated with this treatment, similar to those above. This procedure should only be performed by a highly experienced laser operator.

Chemical peels, microneedling and laser are usually not available as NHS procedures. You should only seek these procedures from reputable and qualified providers - your NHS doctor should be able to advise on this.

### ***Skin camouflage***

Skin camouflage can be used to hide the pigmentation of melasma and has been shown to help improve quality of life. Skin camouflage is a thick, coloured crème, which is matched to your skin colour and is relatively difficult to remove. A health care professional will be able to help you locate a local service.

### **New Treatments**

Recently, scientists have found that tranexamic acid (a drug usually used to stop bleeding) is effective in improving the appearance of melasma in some patients.

### **Self care (What can I do?)**

The most important thing you can do if you have melasma is to protect your skin from sunlight exposure and avoid the using sunbeds.

If melasma improves, this effect can be maintained by protecting your skin from the sun.

### ***Top sun safety tips***

- Protect your skin with adequate clothing, wear a hat that protects your face, neck and ears, and a pair of UV protective sunglasses. Choose sun protective clothing (with permanently sun-protective fabric, widely available for adults and children) if you have fair skin or many moles.
- Spend time in the shade between 11am and 3pm when it's sunny. Step out of the sun before your skin has a chance to redden or burn.
- When choosing a sunscreen look for a high protection SPF (current recommendations are SPR 50 or 50+) to protect against UVB, and the UVA circle logo and/or 4 or 5 UVA stars to protect against UVA. Apply plenty of sunscreen 15 to 30 minutes before going out in the sun, and reapply every two hours and straight after swimming and towel-drying.
- Keep babies and young children out of direct sunlight.
- The British Association of Dermatologists recommends that you tell your doctor about any changes to a mole or patch of skin. If your GP is concerned about your skin you are advised to see a Consultant Dermatologist – an expert in diagnosing skin cancer. Your doctor can refer you for free through the NHS.
- Sunscreens are not an alternative to clothing and shade, rather they offer additional protection. No sunscreen will provide 100% protection.

#### Vitamin D advice

The evidence relating to the health effects of serum Vitamin D levels, sunlight exposure and Vitamin D intake remains inconclusive. Avoiding all sunlight exposure if you suffer from light sensitivity, or to reduce the risk of melanoma and other skin cancers, may be associated with Vitamin D deficiency.

Individuals avoiding all sun exposure should consider having their serum Vitamin D measured. If levels are reduced or deficient they may wish to consider taking supplementary vitamin D3, 10-25 micrograms per day, and increasing their intake of foods high in Vitamin D such as oily fish, eggs, meat, fortified margarines and cereals. Vitamin D3 supplements are widely available from health food shops.

### Where can I get more information about melasma?

*Web links to detailed leaflets:*

[www.dermnetnz.org/colour/melasma.html](http://www.dermnetnz.org/colour/melasma.html)

<http://www.patient.co.uk/doctor/Chloasma-%28Melasma%29.htm>

<http://www.pcids.org.uk/clinical-guidance/melasma-syn.-chloasma-and-other-causes-of-facial-hyperpigmentation>

*Links to patient support groups:*

*British Association of Skin Camouflage* (NHS and private practice)

Tel: 01254 703 107

Email: [info@skin-camouflage.net](mailto:info@skin-camouflage.net)

Web: [www.skin-camouflage.net](http://www.skin-camouflage.net)

*Changing Faces*

Tel: 0300 012 0276 (for the Skin Camouflage Service)

Email: [skincam@changingfaces.org.uk](mailto:skincam@changingfaces.org.uk)

Web: [www.changingfaces.org.uk](http://www.changingfaces.org.uk)

For details of source materials used please contact the Clinical Standards Unit ([clinicalstandards@bad.org.uk](mailto:clinicalstandards@bad.org.uk)).

**This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.**

*This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel*

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