PATIENT INFORMATION LEAFLET

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 is also called 'chloasma' and 'pregnancy mask.' It 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 greenish. 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 in 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 due to 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 sunbeds or phototherapy can trigger melasma or make it worse. High energy visible (blue) light may also contribute to melasma, though there is no evidence that blue light from personal electronic devices has an effect on the skin.

IS MELASMA HEREDITARY?

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

WHAT DOES MELASMA FEEL AND LOOK LIKE?

Most people affected by melasma are upset by its appearance, but it has no physical symptoms. That is, the affected skin is not itchy or painful.

Melasma appears darker than the surrounding skin and can affect 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.

HOW IS MELASMA DIAGNOSED?

Melasma is usually recognised by doctors from its appearance. Occasionally, a 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) 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 appearance. If melasma occurs during pregnancy, it may go away a few months after delivery and treatment may not be necessary, although it may come back during another pregnancy. 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.
- Tranexamic acid (a drug usually used to stop bleeding) can help improve the appearance of melasma in some patients. This can be taken as a tablet or applied in a cream.
- 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. Sun cream containing iron oxides can provide added protection against visible light. Avoid using sun-tanning beds. Protecting your skin from the sun will also help the treatments below to be more effective.

Management:

Creams

Hydroquinone is a medicine that prevents pigment cells in the skin from producing melanin (skin colouring) and is commonly used to treat melasma. Hydroquinone cream may cause skin irritation and 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 prescribed to treat acne, can help improve the appearance of melasma but can also cause skin irritation. Various other creams and serums (some of which can be bought over-the- counter) containing azelaic acid, ascorbic acid (vitamin C), kojic acid, cysteamine and thiamidol are helpful in the treatment of melasma.

Some skin-lightening creams contain a combination of two or three ingredients (such as hydroquinone, a retinoid and a weak steroid to reduce irritation) 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.

Hydroquinone and retinoid creams should be avoided in pregnancy as they could harm the baby in the womb.

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 lasers 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 such as redness, pain and swelling. Additionally, it can worsen pigmentation issues or result in patches of lighter skin, a phenomenon more frequently observed in people of colour. This procedure should only be performed by a highly experienced laser operator.

Chemical peels, microneedling and laser are usually not available as NHS procedures and can have associated risks. 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.

SELF-CARE (WHAT CAN I DO?)

The most important thing you can do if you are affected by melasma is to protect your skin from sunlight exposure and avoid the use of sunbeds. Additionally, avoid using any irritating skin care products, instead opt for gentle, fragrance-free formulas.

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

Top sun safety tips

Sun protection is recommended for all people. It is advisable to protect the skin from further sun damage.

- Protect your skin with clothing. Ensure that you wear a hat that protects your face, neck and ears, and a pair of UV protective sunglasses.
- Make use of shade between 11 am and 3 pm when it's sunny.
- It is important to avoid sunburn, which is a sign of damage to your skin and increases your risk of developing a skin cancer in the future. However, even a tan is a sign of skin damage and should be avoided.
- Apply a high sun protection factor (SPF) sunscreen of at least 30. However, if you have an organ transplant, it is recommended to use SPF 50, which has both UVB and UVA protection all year round. Look for the UVA circle logo and choose a sunscreen with 5 UVA stars as well as a high SPF, like this:

- Use this sunscreen every day to all exposed areas of skin, especially your head (including balding scalp and ears) and neck, central chest, backs of hands, forearms and legs if exposed.
- Apply plenty of sunscreen 15-30 minutes before going out in the sun (ideally apply it twice) and reapply every two hours when outdoors. You should especially re-apply straight after swimming and towel-drying, even if the sunscreen states it is waterproof.
- Make a habit of sunscreen application, applying sunscreen as part of your morning bathroom routine. If you have an oily complexion, you may prefer an oil-free, alcohol-based or gel sunscreen.
- 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 should be referred to see a consultant dermatologist or a member of their team at no cost to yourself through the NHS.
- No sunscreen can offer you 100% protection. They should be used to provide additional protection from the sun, not as an alternative to clothing and shade.
- Routine sun protection is rarely necessary in the UK for people of colour, particularly those with black or dark brown skin tones. However, there are important exceptions to this; for example, sun protection is important if you have a skin condition, such as photosensitivity, vitiligo or lupus, or if

you have a high risk of skin cancer, especially if you are taking immunosuppressive treatments (including organ transplant recipients) or if you are genetically pre-disposed to skin cancer. Outside of the UK in places with more extreme climates, you may need to follow our standard sun protection advice.

- It may be worth taking vitamin D supplement tablets (available from health food stores) as strictly avoiding sunlight can reduce your vitamin D levels.

Vitamin D advice

The evidence relating to the health effects of serum vitamin D levels, exposure to sunlight and vitamin D intake, is inconclusive. People who are avoiding (or need to avoid) sun exposure may be at risk of vitamin D deficiency and should consider having their serum vitamin D levels checked. If the levels are low, they may consider:

- taking vitamin D supplements of 10-25 micrograms per day
- increasing intake of food rich in vitamin D such as oily fish, eggs, meat, fortified margarine and cereals.

WHERE CAN I GET MORE INFORMATION ABOUT MELASMA?

Patient support groups providing information:

Changing Faces
Tel: 0300 012 0275
Email: info@changingfaces.org.uk
Web: www.changingfaces.org.uk

Web links to other sources:

www.dermnetnz.org/colour/melasma.html

https://patient.info/doctor/melasma-chloasma-pro

https://www.changingfaces.org.uk/advice-guidance/condition-specific-information/melasma/

Jargon Buster:
https://www.skinhealthinfo.org.uk/support-resources/jargon-buster/

Please note that the British Association of Dermatologists (BAD) provides web links to additional resources to help people access a range of information about their treatment or skin condition. The views expressed in these external resources may not be shared by the BAD or its members. The BAD has no control of and does not endorse the content of external links.

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

BRITISH ASSOCIATION OF DERMATOLOGISTS

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