PRIMARY CARE DERMATOLOGY SOCIETY

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What is melasma?

Melasma is a common, harmless disorder. In melasma, areas of increased skin pigmentation develop on sun-exposed sites of the body. It is not cancerous and is not contagious. It does not cause any physical symptoms such as itch nor pain but can cause significant psychological distress.

What does melasma look and feel like?

Melasma **most commonly affects the face** and appears as flat, darker-coloured patches. Depending on your own skin colour, these patches will be darker in colour than surrounding skin. The patches may be light-brown, darker brown, or blue-grey in colour. Melasma may appear like freckle- or confetti- like patches, or may join up to form larger patches.

There are different ways in which melasma can appear on the face:

- Centrofacial - the forehead, nose, cheeks, and upper lips
- Malar - the cheeks and nose
- Lateral cheek - both cheeks
- Mandibular - the jawline

Rarely, melasma, (known as extra-facial melasma), can develop on the neck, chest, and forearms.

What causes melasma?

Melasma is a condition that develops in time (it is not present from birth). It develops on **sun-exposed skin**. Though anyone can develop melasma, it is **more common in women**. Though the exact cause is unknown, multiple factors are thought to be responsible, usually in combination:

- **Genetic predisposition** - people are more prone to melasma if there is a history of melasma in the family

- **Increased ultraviolet light** - sun exposure is known to trigger and worsen melasma. Melasma improves after a period of sun avoidance, for example, in winter months

- **Hormones** - increased hormones during pregnancy, or with the use of hormonal contraception, or hormonal drugs such as testosterone, worsens melasma

Primary Care Dermatology Society
PO Box 789, Rickmansworth, Hertfordshire WD3 0NU
Tel: 0333 939 0126 Email: pcds@pcds.org.uk

- **Skin inflammation** - some cosmetics and chemicals can cause irritation and inflammation in the skin. This can be due to contact dermatitis (a rash caused by a substance touching the skin and causing an irritant or allergic reaction), phototoxic reactions (the skin becomes more sensitive to sunlight), or as direct result of inflammation caused by cosmetic treatments. All of these can worsen melasma

- **Medicines** - some medicines, such as diuretics, oral retinoids, medicines for diabetes, and antibiotics, may cause the skin to become more sensitive to sunlight and trigger or worsen melasma (phototoxic reactions)

Things you can do to help yourself

Most cases of melasma do not need treatment unless causing distress due to its appearance.

- **Most melasma fades with ageing**. In most women, after the menopause, most melasma disappears. Extra-facial melasma tends to persist longer

- Melasma **associated with pregnancy generally resolves in time**, but for some, the pigmentation may last permanently to varying degrees

- **Protection from sunlight is the most important aspect of treatment.** Ultraviolet light from the sun is a potent trigger of melasma**.** Protecting oneself against ultraviolet light may not only reverse some melasma, but will prevent it from worsening:
    - Protection is needed **all year**
    - Use **shade** and a **broad-brimmed hat**
    - Be aware that **light coming through glass and from electronic devices** will also worsen melasma
    - **Sunscreen**
        - Use a **mineral sunscreen**, which protect against UVA, UVB, and visible light
        - Sunscreen **built into cosmetics will not suffice**
        - Use an **SPF of 30 or more** and with a **4/5 star UVA rating**
        - **In terms of volume, use a teaspoon amount** to the head and neck **several times a day**
    - If you are limiting the amount of sunlight getting to your skin you will probably need to take **Vitamin D supplements**
    - Avoid the use of **sun beds (tanning salons)**

- **Avoid irritants**, scented soaps, or harsh chemicals that may irritate the skin of the face. Moisturising daily will help repair damage to the skin of the face

- **Cosmetic makeup** can be very helpful to camouflage melasma. **Camouflage therapy** is offered by Changing Faces (www.changingfaces.org), though some NHS hospital departments may also offer this

Make an appointment at your GP surgery

If you want to confirm the diagnosis or discuss treatment options, make an appointment at your GP surgery. It is important to understand there is **no cure for melasma**, and in most cases, treatment is unnecessary for this harmless condition.

Principles of treatment include identifying and stopping triggers, and sun (ultraviolet) protection. **Melasma triggered by hormonal contraceptives** may require stopping the contraception method and considering alternative non-hormonal contraception. Phototoxic medicines may need to be changed to non-phototoxic alternatives, where possible.

For information on specific treatments refer to the clinical chapter on melasma in the A-Z Guidelines on the homepage of www.pcds.org.uk.

One of the treatments that can be prescribed is **Azelaic acid**. It is usually applied twice daily; works slowly so needs to be used for at least 8-12 weeks before results can be assessed; and can be used safely in pregnancy and breastfeeding patients. Uncommonly, it may cause stinging and itching that fade with use. It is usually prescribed as a 20% cream, though a 15% gel can be used too.

If melasma persists despite the above measures, depending on local provision, a referral to a specialist for further advice and treatment may be appropriate.

Your mental health

Melasma can have a significant psychological impact and may affect many areas of daily life including work and personal relationships. Sudden stressful events may cause a worsening of melasma. If you require support with your mental health, then discuss this with your health professional.

Referral to a specialist

You may be referred to a specialist if either to confirm the diagnosis, or for specialist treatments not available from your GP. This may be to a consultant dermatologist or a GPwER/GPwSI (a GP who has been trained in relevant areas of dermatology).

What will happen when you are referred?

Although making the diagnosis of melasma can be straightforward most of the time, sometimes it can be challenging. **If the diagnosis is unclear, a small skin biopsy may be required** to confirm the diagnosis of melasma. This involves numbing the skin with an injection of local anaesthetic (you are awake during the procedure), taking a small sample of skin and closing the wound with stitches. This will leave a small scar. An investigation called **patch testing** is sometimes used if the specialist thinks you may have contact allergic dermatitis (i.e. an allergic reaction to something coming into contact with the skin).

A specialist will reinforce the need for sun protection but may discuss other treatments for melasma. **Treatments available depend on local NHS provision, as availability on the NHS is not widespread**.

'Triple combination' cream combining a topical retinoid (0.1% tretinoin), a weak topical steroid (1% hydrocortisone), and a skin lightening cream (4% hydroquinone) is often prescribed. Triple combination creams are safe, but rarely, can be associated with a side effect known as **ochronosis** in which there is permanent darkening of skin colour. This usually occurs with prolonged treatment (using the cream for more than a year). **Tranexamic acid**, usually used in tablet form is another treatment used for melasma. In some areas, it is also available as a topical solution. Neither of these treatments can be used in pregnancy or breastfeeding patients.

In addition to the 'triple combination cream', several other treatments may be offered by private cosmetic practitioners. These include other topical treatments (vitamin C, kojic acid, and cysteamine), chemical (facial) peels, platelet-rich plasma injections, micro-needling, dermabrasion, and laser therapy. It is vital that one does their own research in to what is being claimed and promised and to seek a reputable practitioner. Be careful that over the counter creams do not contain harmful ingredients, such as potent steroids, or high-dose hydroquinone. Insist on looking at the product label. **There is no treatment, to date, that results in complete melasma reversal**. **Treatments are best thought of, in conjunction with rigorous sun protection, as controlling and managing melasma, rather than curing.**

Helping with other skin conditions

If you, a family member, or friend have an undiagnosed skin condition; or you want to learn more about how to treat skin conditions, please visit www.pcds.org.uk – if you click the purple tile near the top of the homepage that reads ***Take a Tour*** you can learn how best to use this website.