

KEEP YOUR FACE LOOKING HEALTHY DURING COVID-19

The coronavirus pandemic has led to increased use of face masks, not only amongst healthcare workers but also now the general public. Prolonged wearing of masks and goggles can cause adverse skin reactions such as acne, contact dermatitis and pressure effects, as well as exacerbate any underlying skin conditions.

These tips, from the Australasian College of Dermatologists and the Occupational Dermatology Research and Education Centre, based at the Skin Health Institute in Melbourne, will help you minimise skin problems while wearing a mask.

BEFORE WEARING A MASK



Use a mild skin cleanser (or soap substitute) or micellar water at the beginning and end of the day

Avoid toners, which can dry out the skin

Moisturise regularly

- ◆ Simple formulations with least ingredients are best
- ◆ Avoid fragranced products
- ◆ Start with a less greasy lotion before progressing to a greasier cream if tolerated
- ◆ Avoid greasy creams if you are prone to acne
- ◆ Your sunscreen can be your moisturiser!

Remember, the most important measure for caring for your facial skin is **appropriate sun protection**.

Anti-ageing skin care products may help improve your skin appearance, but those containing **glycolic acids or retinoids can be irritating**, especially when the skin barrier is damaged or compromised.

Dermatologists are increasingly seeing young women who use multiple products daily and develop skin problems - serums, oils, day and night creams, exfoliants, etc. They are rarely all necessary.

**Keep your
skincare
routine
simple!**

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WHILE WEARING A MASK

Choice of mask

- Take time to fit your mask
- Do not overtighten
- Clean your hands before and after putting mask on and taking it off
- Once on, do not touch mask, especially outside without performing hand hygiene



Regular breaks

Give your skin a break for five minutes (preferably every few hours).



Reduce friction

If this is a problem, apply moisturising lotion at least 30 minutes before mask wearing to lubricate and reduce friction between the skin and mask.

Barrier creams can also be used if you're wearing a mask for an extended length of time, however these products tend to be greasy, which may aggravate acne. Choose a lighter, silicone-based product.

AFTER WEARING A MASK

Moisturise, especially at night if your skin feels irritated.

Inspect skin for signs of damage

Regularly inspect your skin for signs of redness/scaling.

Cloth masks should be washed daily, and not sprayed with antiseptics or essential oils such as teatree or lavender. We see many cases of allergic contact dermatitis to fragrances, and essential oils are a common culprit.



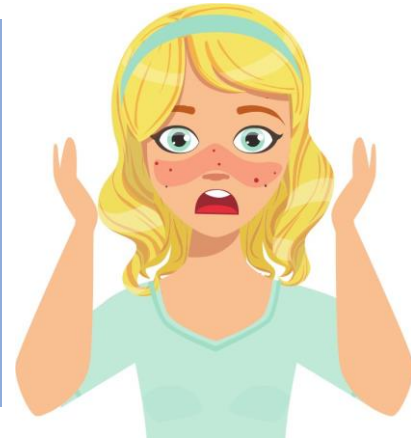
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MANAGEMENT OF SKIN CONDITIONS

Contact dermatitis

Increased temperature, moisture and friction cause skin barrier damage and make the skin more susceptible to irritation. This may cause redness and dryness where the mask touches the skin.

Allergy from masks is very uncommon - irritant contact dermatitis is nearly always the cause.



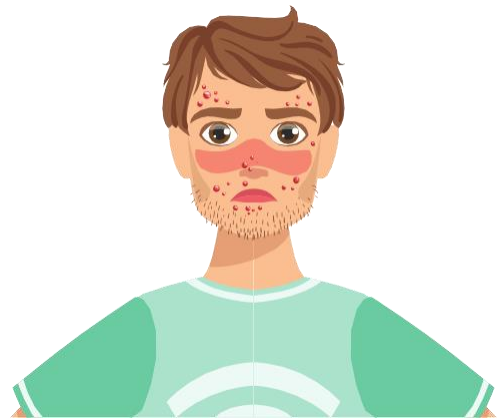
- ◆ Change the brand or type of mask if irritant contact dermatitis occurs. Some masks contain harsher fabrics than others - try a 'softer' variety. Just as some woollen jumpers irritate, but cashmere rarely does, there are big differences in fabrics. And different people react differently!
- ◆ Treat mild irritant contact dermatitis with moisturiser, but not too greasy at first, in case this makes acne worse.
- ◆ Consider using a greasier moisturiser at night.
- ◆ With more severe irritant contact dermatitis, low strength topical steroids can be used, starting with 0.5-1% hydrocortisone cream available over the counter, or 1% hydrocortisone ointment if the skin is dry.
- ◆ If allergy is still suspected, refer to a dermatologist for patch testing. The very few reported allergic reactions to masks include isocyanates in a Chinese N95 mask, allergic contact dermatitis to rubber chemicals in the elastic of a Chinese mask and formaldehyde in a polypropylene facial mask in Belgium.
- ◆ More common causes of facial allergic contact dermatitis include reactions to fragrance and preservatives in skin care products. Less common reactions include to nickel in glasses frames and other jewellery, contact with nail polish, hair dye, airborne exposures to plants, airborne work chemicals...the list is almost endless!

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Acne

Acne can be caused by occlusion from masks blocking oil glands and hair follicles.

Sebum (oil) secretion will be enhanced by increased temperature in the facial environment.



- ◆ Avoid greasy skin care products. In this case, go easy on moisturisers
- ◆ Use a mild cleanser. Consider products with salicylic acid or anti-bacterial agents such as benzyl peroxide gel, or azelaic acid. They may be marketed as 'acne cleansing gels'.
- ◆ While toners may help to dry out the skin in this instance, some experts feel that the drying effect can be excessive and deleterious to the skin barrier. Avoid
- ◆ comedogenic or occlusive make-up. Powders or mineral based make- up may be preferable.
- ◆ There are some over the counter acne gels or creams (gels are often less greasy), which contain ingredients that may help, such as zinc and niacinamide.
- ◆ In severe cases, prescription products may be needed, such as topical retinoids or topical or oral antibiotics.

Pressure urticaria

Rarely, urticaria (hives) may be caused by pressure from masks, particularly in people with underlying dermographism (where there is histamine release, causing skin whealing, in response to light pressure).

- ◆ Avoid tying masks too tight.
- ◆ Try different types or brands of masks that fit your face better.
- ◆ Take antihistamines before use, such as fexofenadine, cetirizine or loratidine - all available over the counter.

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Dry and itchy skin

Itchiness may be caused by various skin conditions or may be simply due to friction from the mask.

Increased temperature, moisture and friction cause skin barrier damage, which may lead to dry skin.



- ◆ Treat dry skin by ensuring moisturisers are used before and after wearing a mask.
- ◆ Oral antihistamines can be trialled.
- ◆ Itching from longer loose fine fibres on the face side of the mask has occurred in some cases - these can be identified with a magnifier and side light and snipped off.

Pressure injuries

Pressure from the mask can cause skin indentation.



- ◆ Most indentation will resolve spontaneously.
- ◆ Apply compresses with three to four layers of gauze soaked in cold water/normal saline applied to the skin for around 20 minutes every 2-3 hours. With severe
- ◆ indentation, compresses with povidone iodine (Betadine) diluted by normal saline at a ratio of 1:9 can be used on the face, with a medical dressing afterwards.
- ◆ Moisturisers can be applied to intact skin while prescription topical antibiotic ointments may be required if the skin is broken.
- ◆ Avoid using hot water or ethanol or other irritants.
- ◆ If pressure from goggles is the main problem, switch to a visor.

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AGGRAVATION OF OTHER SKIN CONDITIONS

Skin conditions such as **rosacea**, **seborrheic dermatitis**, and **atopic eczema** can all be aggravated by the heat and sweating that occurs when wearing a mask.

Preventative measures include:

- Limit the time wearing masks and give your skin a break when they are not required, such as when inside your home.
- Use gauze inside masks on areas of irritation.
- Consider using moisturisers before and after wearing masks, but be aware that these should not be too greasy if your skin is oily.
- Continue your prescribed treatments and consult your doctor if there is further aggravation of the underlying skin condition.

If you are also having problems with rashes on your hands, you can also find information about hand care and dermatitis prevention on the Occupational Dermatology Education & Research Centre website at www.occderm.asn.au/news

If you have any questions or require further information please email admin@occderm.asn.au

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Related reading and further information

- ◆ Badiri F. Surgical mask contact dermatitis and epidemiology of contact dermatitis in healthcare workers. *Current Allergy and Clinical Immunology*, September 2017, 30 (3); 183-188
- ◆ Donovan, J. Kudlar, I. Holness, L. Skotnicki-Grant S, and Nethercott, J. Skin reactions following use of N95 facial masks. *Dermatitis*, 2007, 18 (2):104
- ◆ Foo C, Goon A, Leow Y and Goh C. Adverse skin reactions to personal protective equipment against severe acute respiratory syndrome - A descriptive study in Singapore. *Contact Dermatitis*, Dec 2006, 55 (5) 291-294
- ◆ Lan J, Song Z, Miao X, Li H, Li Y, Dong L, Yang J, An X, Zhang Y, Yang L, Zhou N. Skin damage and the risk of infection among healthcare workers managing coronavirus disease-2019. *Journal of the American Academy of Dermatology*. May 2020 82 (5), 1215-1216
- ◆ DermNet www.dermnetnz.org
- ◆ The Australasian College of Dermatologists www.dermcoll.edu.au

Note: Some information in the Information Sheet has been redacted as the information was not applicable to the clinical area.

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