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NATIONAL SKIN CENTRE
National Healthcare Group

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PEAK HEAT

Sun protection in the hot seat

Dr Jayden's Sun Protection Routine

Overwhelmed by the flurry of skintok content our there? Fret not! We bring you reliable skin-formation from qualified dermatologists. With temperatures and UV indexes soaring, Dr Jayden Wong Yi Sheng, Associate Consultant Dermatologist at NSC, shares his personal sun protection tips and tricks.

I'm so happy to be chatting about this topic as I believe that sun protection education in Singapore needs to be improved on. It is important to remember that harmful ultraviolet (UV) rays from the sun not only causes sunburn, but also accelerates photoaging (wrinkles and dark spots) and most importantly, causes skin cancer. Sunscreen use should be an integral part of everyone's daily skin care regime.

Daily Sun Protection

It is a common misconception that we only need to apply sunscreen if we plan to be outdoors. I wear sunscreen daily, and recommend the same to my patients. UV radiation from the sun is very powerful and we are exposed to them even when indoors or during a cloudy day.

After using a gentle soap-free facial cleanser and after application of a moisturiser, I would apply a broad spectrum UBA/UVB protective sunscreen with at a SPF of at least 30. I know of people who use moisturisers or skincare products with some degree of SPF, but these often do not offer sufficient sun protection.

At this point, I would pay special attention to frequently missed areas such as behind the ears, where we frequently see skin cancers occurring. I would also make sure I cover the back of my hands. Fun fact: this is where the first signs of photoaging often occurs.

My Day Out in the Sun

While it is important to avoid unnecessary sun exposure between 10am and 4pm, I do enjoy hiking with my friends every once in a while.

I would be extra diligent with sun protection when spending a day out in the sun. At least 30 minutes prior to outdoor activities, I begin applying my sunscreen. It is easy to get caught up and neglect sun protection in the midst of outdoor activities, which is why I make it a point to remind myself to reapply my sunscreen every two hours. During outdoor activities, UV radiation breaks down the protective chemicals found in sunscreen. This is accelerated with sweating or swimming activities. Even for water resistant sunscreens that claim to withstand swimming and exercise, I would still keep up with reapplying sunscreen at least every two hours.

Sun protection does not end at sunscreens. No sunscreen can filter out 100% of the sun's harmful UV rays, and sunscreen application is only a part of the sun protection regime. For added protection, outdoor enthusiasts can opt for a broad-brimmed hat, tight-weave or UV-protective long-sleeved clothing.

How much to apply?

For the face/neck, I use half a teaspoon of sunscreen. To cover the whole body, I use a 'shot glass' worth of sunscreen, or about 30ml.

DECODING
Sunscreen Labels

There are many jargons on sunscreen labels that often confuse us. To understand the labels better, we need to understand UV rays. The main UV radiation we are exposed to are UVA and UVB. UVA penetrates deeper into the skin (the dermis) and are responsible for photoaging (A for Ageing). UVB can only reach the more superficial layers of the skin (epidermis) and these rays cause sunburn (B for Burn). Both UV types can result in DNA damage and cause skin cancers.
There are two main types of sunscreens - mineral/physical sunscreen (containing ingredients like titanium oxide and zinc oxide) which reflects UV rays, and chemical sunscreens which contains chemicals such as avobenzone that absorbs and neutralise UV rays.

Let us now decode some of the jargons seen on sunscreen labels:

Broad Spectrum

A broad spectrum sunscreen protects wearers from both UVA and UVB.

SPF

The SPF (which stands for Sun Protection Factor) of a sunscreen is a measure of how much of harmful UV rays it absorbs or reflects away from the skin. SPF only refers to UVB radiation.
A good way to understand SPF simply is that in a SPF 15 sunscreen, out of 15 harmful UV rays, one is able to reach and damage to skin (offering a 97% protection). While in an SPF 30 sunscreen, out of 30 harmful UV rays, one is able to damage the skin (offering a 98% protection). The higher the number, the better the sunscreen can protect you against UVB.

'+' signs

The plus sign behind the SPF number (i.e. SPF50+) means that the sunscreen provides an at least SPF50 protection against UVB. This is because the same type of sunscreen may test slightly differently in different laboratories.

Another plus sign that you may see on sunscreen labels is the 'PA+' rating (found on sunscreens made in Japan, Korea or China). This is a measure of UVA protection and can range from PA+ to PA++++. Other regions use different labelling to indicate level of UVA protection (UVA seal in Europe and Australia which is a UVA with a circle around it, and a star system in the United Kingdom).

I often get asked which is the best sunscreen in the market.
Now that you have learnt to decipher the sunscreen labels on your own, the best sunscreen is actually the one that you enjoy using consistently, liberally, everyday!

Spot the spot

Is it melanoma, or just a harmless mole?
Melanoma is one of the deadliest forms of skin cancers, but it can present in innocuous ways.
Can you tell which of the below photos are melanoma?

Follow
@nationalskincentresg
on Instagram for answers

The ABCDEs of Melanoma Detection

Need help detecting suspicious signs of melanoma? Consider these pointers, but do consult your dermatologist for an expert opinion.

A for Asymmetry

One of the first signs to look out for when examining your skin is asymmetry. Imagine drawing an imaginary line down the centre of a mole or lesion. Does each half mirror the other? In melanomas, irregularities in shape are often a red flag. Keep an eye out for moles or spots that appear lopsided or uneven.

B for Border

The border of a mole should be smooth and well-defined. However, in melanomas, borders tend to be jagged or irregular. Picture the edge of a coastline, with its intricate bays and inlets. Similarly, melanomas can exhibit irregular borders that appear blurred or notched. Any deviation from a neat border warrants further attention.

C for Colour

Most moles and freckles exhibit a uniform coloration, typically shades of brown or black. On the other hand, melanomas often display a medley of colours within the same lesion. Keep an eye out for hues that vary from one area to another, including shades of brown, black, red, white, or even blue.

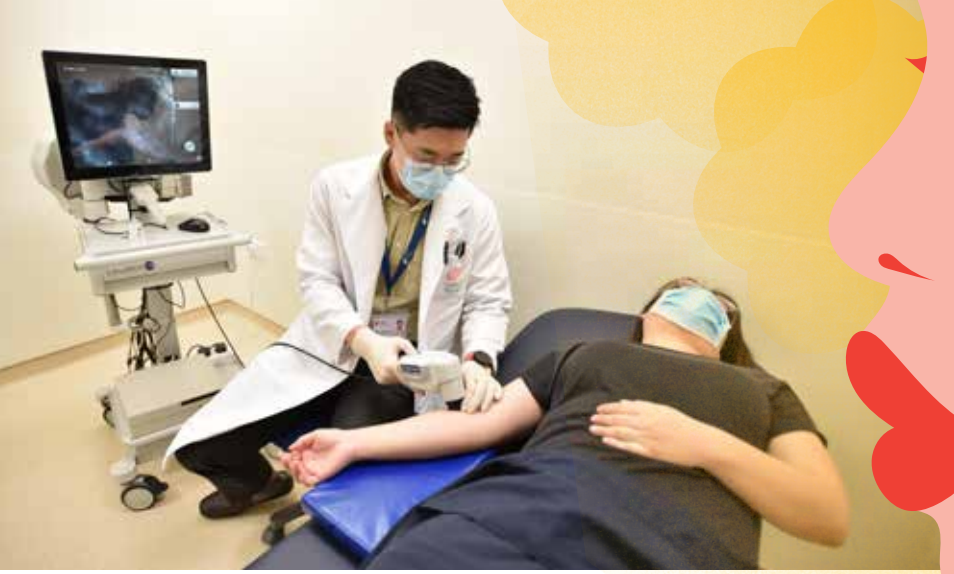
D for Diameter

While size isn't always indicative of a melanoma, it's an important factor to consider. As a general rule, any mole or lesion larger than the eraser of a pencil (about 6 millimetres) should be closely monitored. However, melanomas can also manifest as smaller lesions, so size alone isn't a definitive indicator.

E for Evolution

Perhaps the most critical aspect of melanoma detection is change over time. Pay close attention to any changes in size, shape, colour, or texture of existing moles or the appearance of new ones. Regular self-examinations and skin checks by a dermatologist are essential for spotting any worrisome changes early on.

Remember, early detection is key in the fight against melanoma, and informed checks could very well save your life. Make mole checks a regular part of your skincare routine, and do not hesitate to consult a healthcare professional if you have any concerns.



Non-Invasive Skin Cancer Diagnosis

Immediate and non-invasive diagnosis of skin cancer is now a reality at NSC, the first dermatology centre in South-east Asia to have introduced Reflectance Confocal Microscopy as a clinic service.

Anxiety about the possibility of skin cancer kicked in for Mr L when a lesion on his forehead began bleeding one day – but the worry was short-lived.

A retiree in his 70s, Mr L had developed what he thought was a new mole a year prior. He did not think much of it until it began bleeding, at which point a family member suggested for him to get it checked out at the National Skin Centre (NSC).

Biopsy is the traditional method of diagnosing skin cancer. While it is known and reliable, it is also an invasive procedure. Typically, skin samples are collected after local anesthesia, and stitches are required to close the wound. All biopsies result in scarring.

At NSC, Mr L learnt about an alternative method of diagnosing his lesion. Diagnosis via skin imaging technology, apart from being non-invasive, also has the advantage of speed. With Reflectance Confocal Microscopy (RCM), diagnosis can be delivered within minutes, and patients can receive prompt treatment if needed. Patients who opt for biopsy, on the other hand, have to wait several days to weeks for results to come back.

On the day of his skin imaging, Mr L was in and out of the examination room within 15 minutes, with a reliable diagnosis of basal-cell carcinoma. "The doctor directed the device on my mole, and very quickly, we were done. All I had to do was lie on the bed," said Mr L. "It was very comfortable and not at all scary. It almost felt like getting an ultrasound done."

In Mr L's case, he was able to have his lesion removed on the same day as a surgeon was available.
RCM goes a long way to alleviating stress that patients often undergo while waiting to find out if a mole is cancerous and needs treatment. There are other advantages, such as the ability to assess different lesions at once, eliminating the need for multiple biopsies, translating to greater cost effectiveness.

While there are limitations such as when it comes to visualising deeper skin structures and ulcerated, bleeding or scaly skin, data collected by NSC over three years of researching RCM shows a success rate of 80-90% in diagnosing skin cancer.
Patient satisfaction scores from the same years were also promising, with 96% of patients who opted for RCM reporting no pain during the process, versus only 46.7% of patients who underwent biopsy.

Did you know?

NSC offers a range of skin cancer treatments targeting different care needs, from surgical (Mohs) and non-surgical (Photodynamic Therapy)!

"I am happy I got my mole checked and removed quickly, leaving no time for worry."

Mr L,
who was quickly treated for basal-cell carcinoma in his 70s

Derm Terms

Skin Cancer

Across

[2] Apply this daily to protect your skin from the sun's harmful rays

[4] Wear this to shield your head, face and neck from the sun

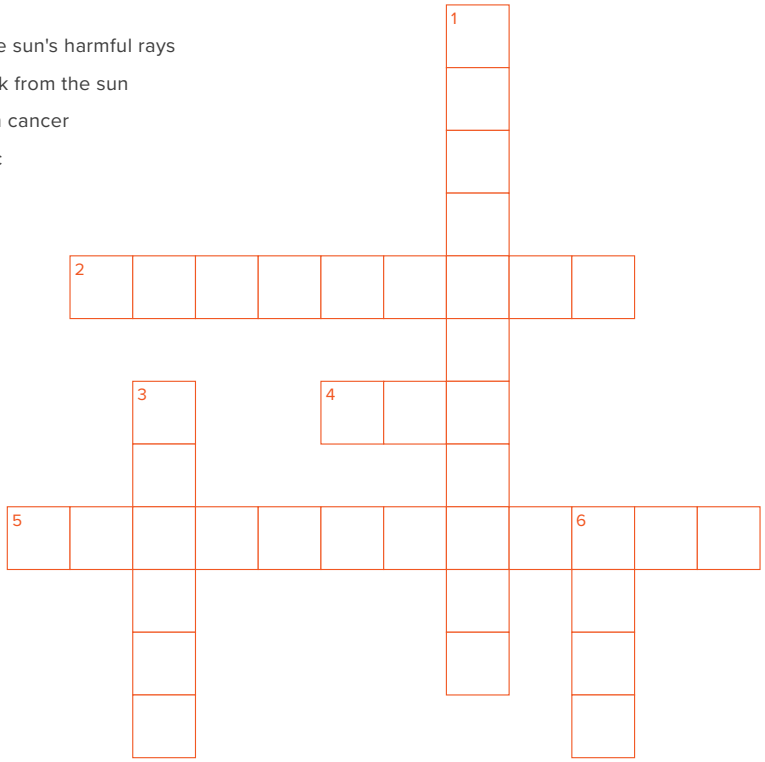
[5] _____ therapy. A non-surgical skin cancer treatment offered at NSC's Phototherapy Clinic

Down

[1] _____ Confocal Microscopy. A quick and noninvasive imaging technique used to diagnose skin cancer at NSC.

[3] Method of diagnosing skin cancer whereby suspicious skin lesion is removed for examination

[6] Surgical treatment of skin cancer offered at NSC's Procedure Suites



Solutions
1. Reflectance 2. Sunscreen 3. Biopsy 4. Ha 5. Photodynamic 6. Moles

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