

2020 Melanoma Skin Cancer Report

Stemming the global epidemic

Created by:



About us

The Global Coalition for Melanoma Patient Advocacy

The Global Coalition for Melanoma Patient Advocacy was formed in 2014 by the Melanoma Research Foundation in response to the global need to bring the patient voice to the melanoma space.

The group has grown to include organisations from 27 different countries and is enthusiastically supported by its partners around the world, as well as the global patient, healthcare and pharmaceutical communities. The Coalition meets the vital needs of the worldwide melanoma community through three working groups, which each specialize in a unique area that addresses globally relevant issues for melanoma patients; Melanoma Awareness and Patient Resources, Patient Advocacy and Access to Treatment, and Collaboration and Recruitment.

The Global Coalition for Melanoma Patient Advocacy meets annually and is determined to make the deadliest skin cancer curable through its worldwide partnership.

For more information or with questions about the Global Coalition, email:

global@melanoma.org

Euromelanoma

Euromelanoma is Europe's leading skin cancer awareness group. It is run by a network of European dermatologists who give up their time to promote and share information on skin cancer prevention, early diagnosis and treatment. It focuses on public awareness of skin cancer, including an annual 'Euromelanoma Screening Day'; sharing knowledge and best practice with the healthcare community; and working with policymakers to ensure the treatment of skin cancer is fully recognised and supported in healthcare systems and policies.

Euromelanoma is a registered charity and is active in 33 countries.

For more information or with questions about Euromelanoma visit:

www.euromelanoma.org

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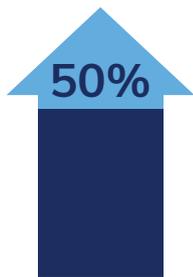
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Introduction

For a second year, Euromelanoma and the Global Coalition for Melanoma Patient Advocacy are partnering to run a global melanoma awareness campaign. By combining our resources, we hope to reach hundreds of millions of people in over 50 participating countries.

This report is at the heart of that campaign. Its purpose is to show that the world has a melanoma problem. And that it's getting worse.

Over the last decade, the annual cases of melanoma, the deadliest form of skin cancer, have increased by nearly 50% to over 287,000¹. This translates to more than 60,000¹ melanoma-related deaths per year.



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Add to these figures the current incidence and mortality rates for non-melanoma skin cancers, and we can see why dermatologists believe skin cancer should now be seen as a global epidemic.

Official figures from the World Health Organization estimate that there are currently over one million¹ cases of non-melanoma skin cancer each year. However, with many countries not officially recording cases of non-melanoma skin cancer, the real incidence is widely thought to run into several

millions. This makes skin cancer the world's most common cancer.

1,000,000

non-melanoma cases a year.

Albeit less dangerous because they are more easily treated, there were still 65,000¹ non-melanoma-related deaths recorded in the last year. When combined with melanoma-related fatalities, this equates to one person dying from skin cancer every four minutes.



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For a cancer that can usually be beaten if caught early, this statistic is shocking. More shocking though are the projections for skin cancer over the next 20 years. The latest data from the WHO predicts that, by 2025, the number of deaths

resulting from melanoma will increase by 20%², rising to 74%³ by 2040.



The number of deaths resulting from melanoma will increase by 20%²

The first section of this report therefore uses hard facts and figures to quantify the size of the world's melanoma challenge. Is this scaremongering? Absolutely. The data shows a wake-up call is needed.



Data shows a wake-up call is needed.

While its growing prevalence must be recognised, it's equally important that people know that melanoma skin cancer is one of the most preventable and, if detected early, treatable

cancers. So, the second half of this report sets out the three battlegrounds dermatologists believe are key to reversing the current trend. In response to the melanoma epidemic, we need a social epidemic that changes thinking and behaviours.



We need a social epidemic that changes thinking and behaviours.

We examine the need for ongoing public education regarding melanoma risk factors, strategies for reducing intentional tanning, and the need for making frequent skin self-examinations a regular habit.



Veronique del Marmol
Chair of
Euromelanoma



Kyleigh LiPira
CEO of the Melanoma
Research Foundation,
founding member of
the Global Coalition for
Melanoma Patient Advocacy

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1. Global Cancer Observatory – 2018 data from 'Cancer Today'
2. Global Cancer Observatory – projected 2025 data from 'Cancer Tomorrow'
3. Global Cancer Observatory – projected 2040 data from 'Cancer Tomorrow'

Skin cancer in 2020 & beyond

A growing epidemic: melanoma today

Global incidence and mortality rates

In 2018, 287,723 cases of melanoma skin cancer and 1,042,056* of non-melanoma skin cancer were diagnosed globally. 60,712 people died of melanoma skin cancer and 65,155 of non-melanoma skin cancer.

* non-melanoma skin cancer is under reported and widely acknowledged to run into several million

Change since 2008

Incidence rates of melanoma skin cancer rose by 44% between 2008¹ and 2018 with deaths increasing by 32%.

Top and bottom five countries by incidence per capita

Globally, one person in every 26,522 developed melanoma skin cancer in 2018, however the incidence rate per capita varied widely between countries:

2018	Per capita ²
1. Australia	1 in 1,746
2. Norway	1 in 1,983
3. Denmark	1 in 2,243
4. Sweden	1 in 2,316
5. Germany	1 in 2,645
38. Argentina	1 in 26,049
39. Brazil	1 in 28,280
40. Mexico	1 in 40,984
41. Albania	1 in 41,768
42. Japan	1 in 69,968

Top and bottom five countries by mortality-to-incidence ratio

Mortality-to-incidence ratio (MIR) indicates there is huge disparity between the treatment outcomes of the top and bottom five countries:

2018	Mortality-to-incidence ratio (MIR)
1. Australia	11%
2. Germany	11%
3. Luxembourg	12%
4. Denmark	12%
5. Switzerland	12%
38. Bosnia & Herzegovina	37%
39. Montenegro	38%
40. Romania	39%
41. Bulgaria	43%
42. Poland	46%

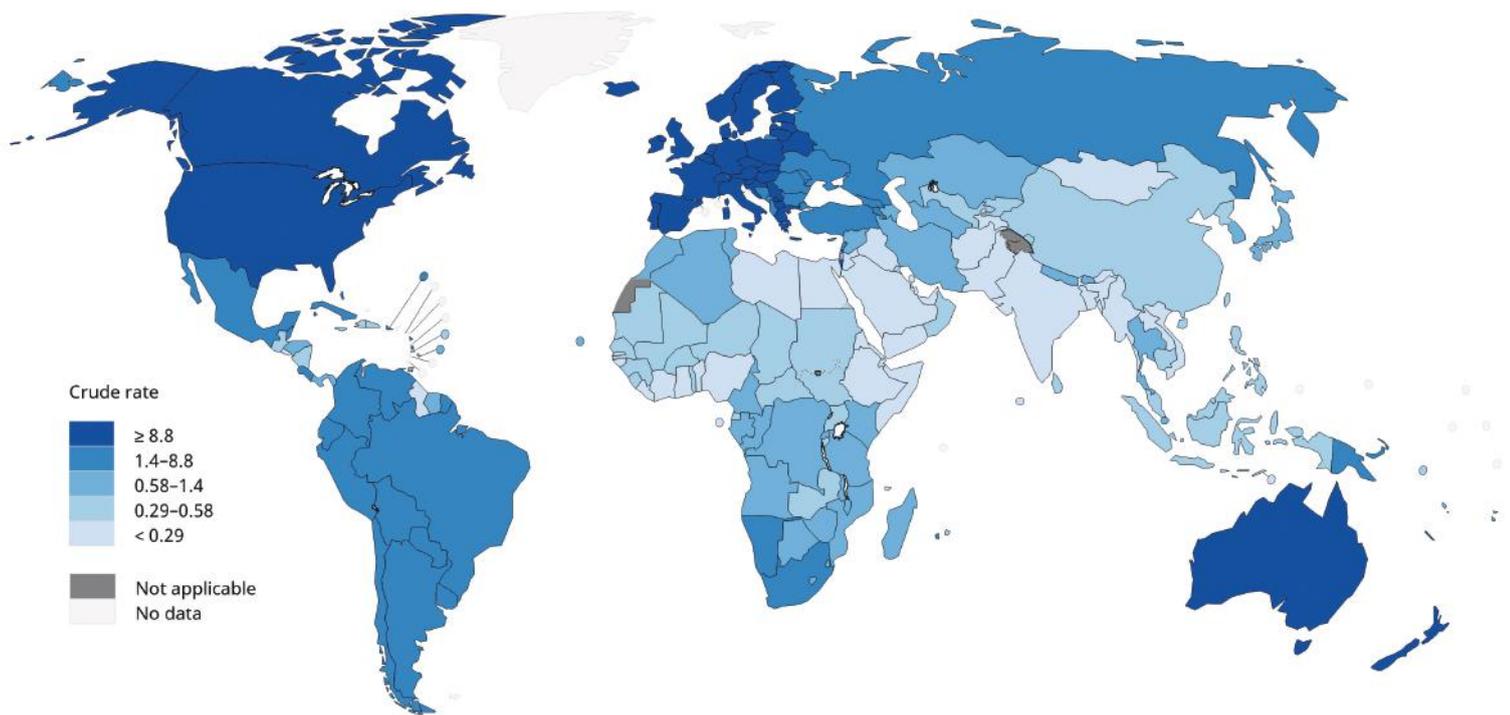
Incidence and mortality of melanoma v lung cancer

With an average MIR of 21%, melanoma skin cancer remains one of the most treatable cancers compared to others, such as lung cancer, which has an 84% MIR.

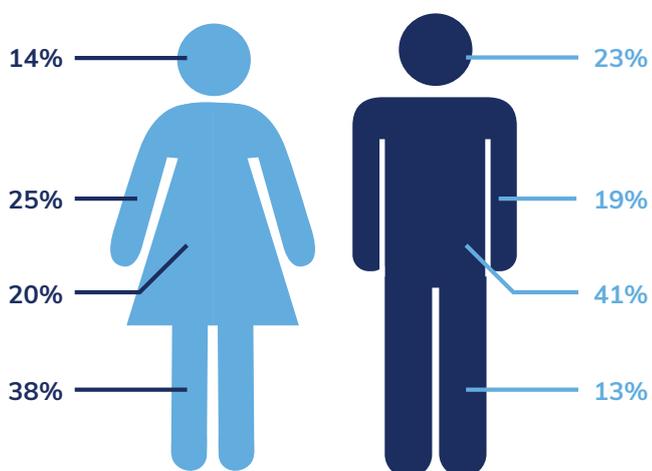
Incidence and mortality by sex

Men are 10% more likely to develop melanoma skin cancer than women, and are 4% more likely to die from melanoma than women.

Estimated crude incidence rates of melanoma in 2018 for both sexes, all ages



Incidence by body site³



The relationship with the Human Development Index⁴

- ◆ People in countries with a high Human Development Index (HDI) score are more likely to be diagnosed with melanoma
- ◆ But people in countries with a lower HDI score are more likely to die from it

References

1. Calculated using Globocan 2008 data
2. Calculated using United Nations Department of Economic and Social Affairs Population Dynamics data
3. Melanoma skin cancer incidence statistics, Cancer Research UK
4. World Cancer Research Journal, Global Incidence and mortality of skin cancer by histological subtype and its relationship with the human development index (HDI); an ecology study in 2018

All other figures from the Global Cancer Observatory – 2018 data from 'Cancer Today'

Skin cancer in 2020 & beyond

A growing epidemic: melanoma tomorrow

Many dermatologists already believe that skin cancer has reached epidemic proportions. But a new online tool created by the Global Cancer Observatory for the World Health Organization gives us shocking insight into how incidence and mortality rates for melanoma and non-melanoma skin cancer could rise even further over time.

This tool predicts that by 2025, the number of cases of melanoma skin cancer diagnosed worldwide will rise 18% to 340,271 with the number of deaths increasing 20% to 72,886. By 2040, the figures are staggering. Nearly half a million (466,914) people will be diagnosed with melanoma skin cancer, an increase of 62% on 2018 figures, while 105,904 will die from the disease, an increase of 74%.



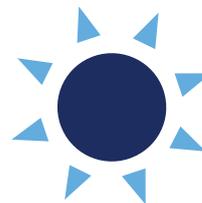
Ask any dermatologist and they will tell you the number of patients they see being diagnosed with melanoma and non-melanoma skin cancer is increasing. But the figures predicted for 2040, with half a million people diagnosed with melanoma skin cancer a year resulting in over 100,000 deaths, are truly shocking.

500,000

melanoma cases a year.

There are a number of reasons why we could see melanoma skin cancer rising so dramatically in the future.

The link between exposure to the sun and skin cancer wasn't discovered until 1956 and this information wasn't widely translated into actionable information for the public for several decades. Even today, anyone aged 50 or above, would have spent a large proportion of their life unaware of the risk of sun exposure.



The link between exposure to the sun and skin cancer wasn't discovered until 1956.

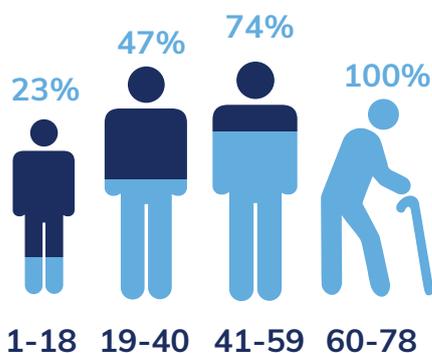
The aim of sun safe campaigns is to reduce risk. But there's a worrying development identified in research by IPSOS for La Roche-Posay. It found that young people aged 15 to 19 took the biggest risks and used the least protection in the sun. This is concerning, given that this age group grew up with sun safe messaging. Even if they later revert to sun safe behaviour when they grow older, the damage may have been done. The risk of melanoma in later life doubles¹ if a child or adolescent has experienced just one blistering sunburn.



Young people aged 15 to 19 took the biggest risks and used the least protection in the sun.

We also know that life expectancy is increasing. While this is good news, dealing with an ageing population throws up some challenges for tackling melanoma and non-melanoma skin cancer. We know that incidence rates increase with age.

This is largely due to accumulated sun exposure over a person's lifetime. And it equates to a ticking time bomb for melanoma and non-melanoma skin cancer incidence rates.



Sun exposure based on 78 year life span.¹

Another factor affecting skin cancer incidence is the environment. When the hole in the ozone layer was at its largest, cases of skin cancer rose dramatically. Worryingly, recent reports show the hole is now growing again. Experts fear this will lead to people being exposed to unprecedented levels of UVB radiation from the sun.

This means that if the climate crisis worsens, the effect on melanoma and non-melanoma skin cancer diagnosis could actually be far greater than the figures predicted by the World Health Organization.

As we saw in the 2018 data, a high incidence rate in a country does not automatically translate to a high mortality rate. Instead, while people in countries with high HDI scores are more likely to be diagnosed with the disease, it is people in countries with low HDI scores that will die from it.

There are a number of possible reasons for this. People in more developed countries are more likely to be diagnosed and treated quickly, whereas those in less developed countries may not seek medical treatment immediately. This may be due to income, lack of awareness of the signs of skin cancer or simply a lack of healthcare provision.

This needs to change. We know that delaying treatment of a stage I melanoma by just one month (30 days) increases the risk of death by 5%. This rises to 41% if treatment is delayed by around four months (119 days).¹



Delaying treatment of a stage I melanoma by just one month increases the risk of death by 5%.

Finally, figures are under-reported. Many countries with low socioeconomic status have inadequate cancer registries. This means the number of cases may not be recorded accurately, giving an incomplete picture.

Predictions give an indication of the likely burden of melanoma and non-melanoma skin cancer both on individual countries, and on the world, as well as the catastrophic human cost. They are our best guess. But we have the power to change the future. Melanoma and non-melanoma skin cancer is preventable and, if caught early, treatable. It is imperative these figures act as a wake-up call for healthcare professionals, policymakers and the public the world over. We can all take action to ensure these figures do not become a reality.

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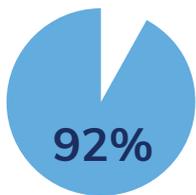
1. Skin Cancer Facts & Statistics: Skin Cancer Foundation

3 key battlegrounds for fighting skin cancer

Improving public awareness of skin cancer risk factors

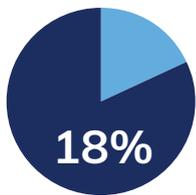
The problem

Skin protection



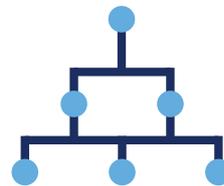
92% of people recognise that sun exposure can cause health problems.¹

- 68% of people only protect their skin in certain situations, yet 87% of people 'always' or 'often' protect their children's skin¹



But only 18% of people always protect their skin from the sun.¹

Recognising the risks



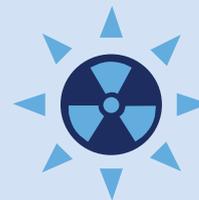
74% recognise that the risk of developing skin cancer is linked to a family history of the disease.¹

The solution

Dr David Fisher - Chairman of the Department of Dermatology and Director of the Melanoma Program at Massachusetts General Hospital, Harvard Medical School

There is clearly a difference between people's awareness of skin cancer risk and their corresponding behaviour in terms of protecting their skin. The explanation for this is multi-factorial but it mostly relates to a monotony of human behaviour. While there may be a cerebral recognition of the risk, our daily practice and routines mean we become used to what we see in the mirror in front of us. This is normal psychology. Unless we have had experience with skin cancer, either directly ourselves or through a loved one, the potential danger can feel quite removed. As with other types of health risk, our natural complacency means we see it as something that happens to other people.

I am often asked if there is a safe dose of UV. The simple fact is that any UV exposure can be harmful. Determining the level of risk is complex because it varies significantly for different individuals. What's important is that each person understands their own particular risk profile - and this is determined by both environmental and family-related factors.



The simple fact is that any UV exposure can be harmful.

From an environmental perspective, one should consider not just the amount of time spent in the sun, but the intensity of UV exposure. For example, a longer time spent outside in Boston in the winter may have a lower UV intensity than a shorter time exposed to the summer sun in Florida. Similarly, the degree of protection is also a factor. Has a suitable sunblock been applied, and have you been wearing long-sleeved clothing and a hat?



Managing the risk of exposure is dependent on your location, the season, and the protective measures taken.

When considering your risk profile, you should also think about family-related factors. Are you naturally light-skinned, and therefore more susceptible to

- 88% of people link the risk of skin cancer with a lack of protection during exposure to the sun¹
- 81% associate skin cancer with regular use of tanning beds¹



75% recognise developing skin cancer is linked to the level of sun exposure, and number of sunburns, during childhood or adolescence.¹

- 72% associate the risk of developing skin cancer with the number and size of their moles¹
- 68% believe risk of skin cancer is linked to the fairness of their skin¹

References

1. Skin cancer prevention study by La Roche-Posay and Ipsos

sunburn? Is melanoma or non-melanoma skin cancer prevalent in your family? Do you have a history of childhood sunburn from family holidays?

What can be done to bridge the gap between awareness of sun exposure risk, and people's corresponding sun protection behaviour?

Firstly, we should recognise that we have a huge opportunity for positive change. If you look across the spectrum of human cancers, there are actually very few where we can be sure of the cause. Smoking and lung cancer is obviously one. The relationship between UV exposure and both melanoma and non-melanoma skin cancers also has a clear correlation. We must therefore continue to have public education programmes, like this one, that challenge people's understanding of their own risk factors and break the cycle of harmful behaviours.

My experience is that messages about skin cancer risk tend to resonate more with people when you describe the need to protect their children – because they usually take more care of their children than themselves. This kind of intervention becomes even more powerful when parents teach children to protect themselves, so that these learned habits

continue after they're no longer in the care of their parents.



Messages about skin cancer risk tend to resonate more with people when you describe the need to protect their children.

Secondly, we should accept that people like being in the sun. There is now evidence that the UV exposure response in our skin produces endorphins and is an opiate addictive pathway. Put simply, it feels good. One theory is that being attracted to the sun 100,000 years ago might have been the only way to protect yourself from vitamin D deficiency – which would otherwise be fatal. Interestingly, this is probably the origin of Caucasian skin, which made it easier for light to produce vitamin D. But today, vitamin D supplements are readily and cheaply available. They satisfy your need for vitamin D, without adding potential risk of skin cancer from sun exposure.

So, instead of demonising the enjoyment people feel from being in the sun, we should recognise it, offer constructive alternatives, and help people to take appropriate measures to protect their skin.

3 key battlegrounds for fighting skin cancer

Reducing intentional tanning

The problem

The desirability of tanned skin



61% of people believe having tanned skin is attractive.¹

- And 49% of people cannot imagine coming back from holidays without being tanned¹
- Yet... 92% of people know sun exposure can cause health problems¹



93% of people recognise that tanning accelerates skin ageing.¹

The solution

Dr Mariano Suppa – Dermatologist and author of several papers on the relationship between skin cancer and sunbed use

It should now be beyond doubt that intentional tanning, and the use of sunbeds in particular, presents increased risk of skin cancer. In countries where sunbed use is prevalent, we have seen increased melanoma incidence rates amongst younger people. This disease should no longer be considered something of concern to just older generations. So what should be done about it?

Although winning this battle will be slow, I think success lies in using different kinds of interventions – in terms of public education, social change and regulation.



Success lies in using different kinds of interventions.

Education

The starting point for positive behavioural change is to ensure people at least have the right facts and understanding. The media – broadcast, print and particularly social media – is key in raising awareness of skin cancer, its effect, and what causes it. Public awareness programmes, like this global campaign from Euromelanoma and the Global Coalition for

Melanoma Patient Advocacy, are important vehicles for engagement and education through these media channels.

Similarly, more action is needed in terms of occupational sun exposure. The construction and postal industries, for example, require their staff to be outside for much of the day. Employers have a duty of care to educate and protect these kinds of outdoor workers. Is appropriate clothing and sunblock being provided? Is training given about skin protection and self-examination? Are shift patterns organised to minimise sun exposure? While some organisations demonstrate good practice, there's huge potential for progress in this area.

Social change

But knowledge of risk does not always translate into less risky behaviour. To really strike at the heart of this issue, we need to see the kind of social and cultural change that makes having tanned skin less desirable.

We live in an age where being tanned is 'cool'. The standard of beauty is to have a fit, tanned body. But it hasn't always been like that. 100 years ago, being pale was in fashion and we saw 'the noble classes' walking in the sun carrying umbrellas. This was opposed to having a tan, which implied you were an outdoor labourer. The positive message for our modern times should be to embrace the natural, untanned appearance of your skin – whatever its original colour.

Sunbed use

- Use of sunbeds before the age of 30 results in a six-fold increase in risk of melanoma²
- 14 lifetime sunbed sessions increase the risk of melanoma by 19%³
- In the US, the cost of treating skin cancers caused by sunbeds is an estimated \$127.3 billion⁴



More people develop skin cancer because of indoor tanning than develop lung cancer because of smoking.⁵

Two things in particular can help here. Firstly, the influence of celebrities shouldn't be underestimated. These social icons, with their millions of Instagram followers, would do a lot of good if they promoted a 'natural' look more than their time spent sunbathing in exotic locations. Celebrities sharing their stories about skin cancer and melanoma is part of this. The actor Hugh Jackman, for example, was very open about the treatment he received for skin cancer. This role model strategy is a good way of changing the public's perception of having tanned skin.



Social icons, with their millions of Instagram followers, would do a lot of good if they promoted a 'natural' look.

Secondly, getting the message right is key. Research shows that sunbed users are more concerned about the possible ageing effects of artificial tanning than the risk of skin cancer. So, strong messages and images about the long-term negative cosmetic consequences are needed.

Regulation

Lastly, I think governments and policymakers have an important role to play. When you consider that sunbeds are carcinogenic, and that has been proven, the first thought might be to ban them. But an

References

1. Skin cancer prevention study by La Roche-Posay and Ipsos, 2015
2. Association between indoor tanning and melanoma in younger men and women, by D Lazovich, R Vogel Isaksson Vogel, MA Weinstock et al, 2016
3. Indoor tanning and melanoma risk, by R Ghiasvand, CS Rueegg, E Weiderpass et al, 2017
4. The health and economic implications of the use of tanning devices, by HR Waters, A Adamson, 2018
5. Skin Cancer Facts & Statistics: Skin Cancer Foundation

outright ban has been criticised, and not just by the industry that makes and sells them. There is a valid argument that a complete ban could backfire, driving the practice of sunbed use underground – where it cannot be properly monitored and regulated (as was the case with the prohibition of alcohol in the United States in the 1920s).



European countries have taken the right approach by banning the use of sunbeds by people under the age of 18.

From a legislative point of view, I think the majority of European countries have taken the right approach by banning the use of sunbeds by people under the age of 18. This is something that is more feasible and controllable.

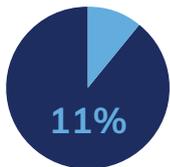
Other regulations could include restrictions on advertising, restrictions on sunbed use for those at high risk of skin cancer (i.e. fair skin or a family history of the disease), the systematic registration of tanning equipment, the ban of coin-operated self-tanning machines, and the mandatory presence of supervising staff trained by independent authorities.

For these to be effective, salons must of course comply with the regulations. Non-compliance must therefore result in severe sanctions.

3 key battlegrounds for fighting skin cancer

Making skin self-examinations a regular habit

The problem



Only 11% of people have their moles checked by a dermatologist at least once a year.¹



Dermatologists say skin self-examinations should be carried out every month.

The solution

Prof Veronique del Marmol – European Chair of Euromelanoma and Head of Dermatology, Erasmus Hospital, Brussels

Creating a habit

It seems a simple fact of life that slipping into bad habits is far easier than finding time for something healthy in your routine. But melanoma and non-melanoma skin cancer incidence rates are increasing, so we must find ways to make skin self-examinations a consistent feature in our monthly calendar. What are some of the ways to do this?

As the figures above show, people tend to take more care of others than themselves. Whether at the family dinner table, or checking-in with friends and loved ones on Snapchat, a quick question about the last time they did a skin check could be life-changing. Let's make sun protection and skin checks part of our regular conversations.

Almost all of us now have a mobile phone. Either through the calendar app or a reminder app, it's very simple to set up an automatic monthly alert to conduct a skin self-examination.

And for those of us who aren't keen on technology-based assistance, there's a naturally occurring reminder that's free for everyone on the planet

to use: a full moon. Regardless of where you are on earth, your gender, age or religion, a full moon happens once every four weeks. This is why our public awareness campaign in 2020 asks people to 'Look Up' – and see a full moon as their monthly reminder to conduct a skin check.

How and where to look

The monthly skin self-examination should cover the whole body, front and back, with particular attention given to areas exposed to the sun. We always recommend standing in front of a full-length mirror with a hand mirror, so that hard-to-reach places can also be checked.



Step 1

Look at your face, including your nose, lips, mouth and on and behind your ears

Step 2

Check your scalp, using a comb to part your hair. If you do not have much hair, check your entire scalp very thoroughly





73% of people think they do more for the health of the people they love than their own health.¹

- Just 33% of people self-check their moles at least once a year¹
- 44% of people have told someone else to get their moles checked¹

References

1. Skin cancer prevention study by La Roche-Posay and Ipsos



Step 3

Check the front and back of your hands, and in between your fingers

Step 4

Then focus on your neck, chest and upper body. Women should be sure to check between and underneath their breasts



Step 5

Bend your elbows to check the upper arms and armpits

Step 6

Use a hand mirror to check the back of your neck and back, from top to bottom



Step 7

Check your buttocks and the back of your legs. Finish by checking the soles of your feet and in between your toes

What to look for

When conducting a monthly skin self-examination, it makes sense to check for both melanoma and non-melanoma skin cancer. People should look for moles that:

- Have changed size, colour and/or shape
- Appear different to the rest (what we call 'the ugly duckling' sign)
- Are asymmetric or have uneven borders
- Feel rough or scaly
- Are multi-coloured
- Are itchy
- Are bleeding or oozing
- Look pearly
- Look like a wound but do not heal

For melanoma in particular, the 'ABCDE' rule is a good way to remember the signs to look for:

- A** - Is the mole Asymmetric?
- B** - Does it have uneven Borders?
- C** - Does it contain different Colours?
- D** - Is it larger than 6mm diameter?
- E** - Is there an Evolution in growth?

If you see two or more warning signs, consult a doctor without delay. It may be nothing, but it's always better to be safe than sorry. Skin cancer, both melanoma and non-melanoma, can usually be treated successfully if caught early.

To protect yourself
from melanoma...

LOOK UP

If you see the sun,
take action to
protect your skin

If you see the full moon,
it is your monthly,
skin check reminder

Melanoma and non-melanoma skin cancer can be easily treated when diagnosed early, so we want people to make skin self-examinations a regular part of their routine. We asked ourselves what would remind people to check their skin once every four weeks, that everyone could see, wherever they are in the world. The answer, of course, is the full moon, the concept for our 2020 campaign.