

# Holiday Hot Topics

More than 35 million people from the UK went on holiday abroad last year, and this year thousands will flock to beaches, fairs and festivals to make the most of the summer months.

But how can we keep our skin safe while out and about in the summer? What are the potential dangers and what is the science behind the products protecting us from harm?

## Safe Sunning...

Sunburn can not only spoil a holiday, it also causes long term damage to your skin, from premature ageing to skin cancer. Despite repeated warnings to holidaymakers, skin cancer is still on the rise.



By taking just a few simple precautions, everyone can enjoy the sunshine safely. Applying the right level of sunscreen (SPF 15 and containing protection against UVA, is the recommended minimum) to exposed areas of skin every two hours will help to protect your skin from the sun's rays.

Of course it is important to try and keep sun exposure to a minimum for young children and especially babies under the age of 6 months. As a general rule, children should use a sunscreen with SPF 30 and UVA protection and cover up in the sun, so try to set up kids' play areas in the shade so they are less likely to suffer from over-exposure.

### How does the sun damage your skin?

The effects of sun damage carry a legacy later in life, even after the sunburn or tan fades.

Sunburn damages the DNA of our skin cells, building up 'sunburnt DNA' in layers within the skin. In fact, this damage can occur even at exposures that do not lead to sunburn. Each exposure to the sun adds another layer of damage to our 'tower of sunburnt DNA', which means that even if our skin may not show visible signs of the sun, each exposure is logged, never to be forgotten, and it is from this sustained damage that our skin can prematurely age and the risks of cancer are increased.

### Follow these six simple steps to give your skin a stress-free holiday...

- Seek out shade, particularly between 11am and 3pm, when the sun is usually at its most intense
- Wear loose-fitting clothing and a wide-brimmed hat when in the sun
- Apply sunscreen 15-30 minutes before going out in the sun and re-apply every couple of hours throughout the day – you will need about a golf-ball-sized amount of cream for each application
- Remember to re-apply when you emerge from cooling off in the water.
- Never use sunscreen to extend the time you would normally spend in the sun
- Drink plenty of water, particularly in hot weather. Keeping your water intake up prevents dehydration and maintains a healthy bladder and kidneys; a healthy body helps to support healthy skin

## Nanotechnology – getting scientific with the sun...

Nanotechnology is the use of particles that are extremely small. You can't see them with the naked eye. They are used in a variety of cosmetics and particularly in suncare and sun protection products.

One of the most commonly used nanomaterials in cosmetics is titanium dioxide. In the case of sunscreens, it is used to reflect and scatter UV light. Since nanomaterials are very small (a nanometre is a millionth of a millimetre), using titanium dioxide in its nano form helps ensure

that sunscreen spreads fully and evenly across the skin, providing the protective layer without leaving telltale white marks. These small particles are actually more efficient at protecting the skin from UV rays which has enabled products to provide greater protection (higher SPF) than in the past. However, they're not so small that they can be absorbed by the skin.

Read more...

[www.thefactsabout.co.uk/nanotechnology](http://www.thefactsabout.co.uk/nanotechnology)

Watch scientific experts including Dr Chris Flower, Director-General of the CTPA and Professor Mark Birch-Machin, Professor of Molecular Dermatology, Newcastle Biomedicine discuss the sun's effect on DNA and the uses of nanotechnology:

[www.thefactsabout.co.uk/theskin#nano](http://www.thefactsabout.co.uk/theskin#nano)

## Tempted by temporary tattoos? There's no such thing as 'Black Henna'...

While on holiday, many people opt to have a fun temporary henna tattoo applied on the beach or by the pool. Henna extract is orange-red in colour. There is no such thing as 'black henna' and so-called 'black henna' temporary tattoos can cause painful short and long-term damage to skin. The problem is that not many people know about the danger lurking in what looks like a bit of temporary holiday fun.

### So what is in 'black henna'?

The truth is that so-called 'black henna' temporary tattoos are not likely to be henna at all, but may contain a substance called PPD (paraphenylenediamine). This use of PPD is illegal in the EU, and it can be very harmful if applied direct to your skin in these types of temporary tattoos, often at high concentrations.

- New research by YouGov for the CTPA reveals one in ten Brits have had a potentially dangerous 'black henna' temporary tattoo<sup>1</sup>
- Almost half of these had the 'black henna' temporary tattoo done on holiday
- 18-24 year olds were the most likely age group to have had a 'black henna' temporary tattoo



<sup>1</sup> Polling conducted by YouGov Plc. Total sample size was 2053 adults, fieldwork undertaken online between 12th - 15th October 2012. The figures have been weighted and are representative of all UK adults (aged 18+).

### PPD – what does it do?

PPD is used safely and legally as an ingredient in hair colorants, but when applied directly to the skin in a temporary tattoo it can leave you with a swollen, sore, red ‘burn’. It can also sensitise you to PPD, triggering a painful allergic reaction called ‘contact dermatitis.’

And it doesn’t stop there. If you have been sensitised to PPD through a ‘black henna’ temporary tattoo, you are very likely to react to PPD elsewhere in future, such as in hair colorants. Hair colorants themselves are regulated under the stringent EU cosmetic safety regulations and are perfectly safe to use when the instructions are followed carefully. But because an allergy is for life, you may never be able to use permanent hair colours in future without risking a bad reaction.



*“Temporary ‘black henna’ tattoos can illegally contain the substance PPD, which is used safely and legally in hair colorants. These types of tattoos can trigger a painful allergic reaction called ‘contact dermatitis’, which means an inflammation of the skin, and that inflammation can sometimes take months to settle and even leave a scar.*

*“‘Black henna’ temporary tattoos can also cause long-term damage by making your skin more susceptible to reactions – people don’t realise that allergies can build-up over time, and that just from having a ‘black henna’ temporary tattoo, they might never be able to colour their hair again. So always carry out an allergy alert test. Avoid ‘black henna’ temporary tattoos because they can spoil your fun, and leave a lasting, nasty legacy afterwards, too.”*

*Hermione Lawson  
British Skin Foundation*

### What is an allergy and how does it work?

Millions of people come into contact with PPD every day, in hair colorants. A very small number of people do have the potential to be allergic to PPD, just as some people develop allergies to foods like nuts or shellfish.

Allergies can build-up over time, which is why it is important to do an Allergy Alert Test every time you colour your hair. Having a ‘black henna’ temporary tattoo can sensitise you to PPD. So having a reaction to a temporary ‘black henna’ tattoo may mean you’ll have to avoid colouring your hair altogether in the future – so steer clear of ‘black henna’ temporary tattoos!

- Under 1.5% of the population has the potential to develop an allergy to PPD
- But only 0.1% of these will then go on to develop an allergy to PPD
- In comparison, 1-5% of the population have allergies to foods such as nuts

## Katy Borluvie, 34, married mum of one, London

Katy decided to have a temporary 'black henna' temporary tattoo while she was on holiday in the Gambia:

"I was having a lovely holiday with my friend. I was by the hotel swimming pool and just made a spur of the moment decision that I now regret because I just didn't really know what the consequences could be.

"I decided I wanted a pretty pattern drawn in 'black henna' just below my collarbone – I was in my swimsuit and I thought it would look really nice. The tattoo artist had a stall in the shade nearby and I'd been watching people have designs done all morning, so I decided to get one too.

"I described what I wanted, he finished painting it on just as I'd asked, and straightaway I felt a burning sensation, and I knew something was wrong.



"My skin blistered soon afterwards – it was incredibly painful and sensitive and looked terrible. It took a long time to fade and I had a visible scar for the next six months.



"I thought 'black henna' was something genuine and safe, I had never even heard that there could be ingredients in it – stuff I let them put straight onto my skin – that probably weren't even being used legally, and as a result was really risky.

"It turns out that it was an illegal use of PPD in the temporary tattoo which they put directly on my skin, resulting in me developing an allergy to that ingredient. It's something that's used in hair colorants at a safe and controlled concentration. I used to colour my hair all the time but because I'm now allergic to PPD, I can't ever colour my hair again.

"I was really upset that a silly bit of holiday fun turned out to be anything but fun – it was supposed to be temporary thing but it has left a horrible lasting legacy."

## The safest way to tan? Fake it

We all know that the safest ways to achieve that holiday glow is to fake it. So how do topical and spray tans achieve that bronzing effect on our skin?

The most commonly used self-tanning ingredient is dihydroxyacetone (DHA), which chemically reacts with the amino acids (the building blocks of proteins) in the dead layer of the skin's surface and causes a colour change which results in the 'tan' effect.

You may have read stories reporting on claims in the US that using self-tanning sprays may not be safe. There is no cause for concern – spray tans are safe. All cosmetic products in the EU are covered by stringent safety laws and DHA has recently been reviewed by the European Commission's independent expert scientific committee which has fully endorsed the safety of DHA in all types of self-tan product as well as in spray booths.

So if you enjoy sun-less tanning you may continue to do so, confident in the safety of the product. It is important to remember though that self-tanning products don't normally contain any sunscreens – so do not forget to use sun protection when going out in the sun!

 The Cosmetic, Toiletry & Perfumery Association Limited [www.ctpa.org.uk](http://www.ctpa.org.uk) »

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