

Health + Prevention 16-Apr-2018

## First aid for eye sunburn

### How to identify sunburned eyes and what to do about it

**Did you know that your eyes can get sunburned? Informally, people often refer to “snow blindness” – an unpleasant eye injury caused by strong UV rays. BETTER VISION explains: How can you tell if you’ve got eye sunburn? How can sunburn and UV light damage your eyes – and what should you do in an emergency?**

*Expert advice provided by: Dr. Albert J. Augustin, Director of Karlsruhe Ophthalmology Clinic*

Whether you’re at the beach or on the slopes, when the sun is shining most people are in a good mood. Sadly, there are a few things that could put a damper on your fun in the sun. One of them is eye sunburn. A rule of thumb is to act fast because eye sunburn can have direct consequences for your vision. But what’s the best way to treat eye sunburn?



## How to identify eye sunburn

As there are so many things that irritate our eyes, you first have to be able to identify eye sunburn. Eye sunburn might affect one or both eyes. Typical symptoms of eye sunburn, commonly known as “snow blindness,” (keratitis solaris or keratitis photoelectrica) are: sore/teary/itchy/red eyes where even your vision seems blurred, and an increased sensitivity to light.

In serious cases of eye sunburn, the outer corneal layer is destroyed, which exposes the nerve endings beneath it. Sufferers often complain of the feeling of having a foreign body in their eye, as if sand has got into it. Blinking is uncomfortable, and sometimes very painful. But eye sunburn is normally harmless. Then again, if you experience it repeatedly, it can even lead to cancer, [> macular degeneration](#) or [> chronically dry eyes](#). The term “snow blindness” is used to describe eye sunburn because it often affects people who go hiking in the mountains as snow reflects up to 88 percent of UV rays, which make them all the more powerful. It’s a similar story when you’re lying on the beach: water reflects 10–20 percent of UV rays.<sup>1</sup> Bear in mind that the higher you climb, the stronger the UV radiation will be. For every 100 metres you climb, UV radiation gets up to 12 percent more intense.<sup>2</sup> It’s up to 16 times higher on snowy terrain. That’s why sunbathers aren’t the only ones who should protect their eyes – anyone who enjoys a spot of skiing, hiking in the mountains or performs welding work is exposed to harmful UV rays.



## First aid for eye sunburn

Just like regular sunburn, the symptoms of eye sunburn often only become noticeable later on: people generally start to experience them 3–12 hours later. As soon as you suspect you may have eye sunburn, it’s important to act fast so you can relieve unpleasant symptoms and prevent further damage.

### 1. Get your eyes checked out

While eye sunburn can be very painful, more often than not it clears up in a few days because the top layers of the cornea have the ability to repair themselves. The eye is a very sensitive organ, so you should always get yours checked out by an ophthalmologist to determine your symptoms – in extreme cases, you may even go blind. Your doctor can prescribe pain-relief medication and treat the eye with disinfectant or antibiotic drops and gels to ward off an infection. A vitamin A gel might also help regenerate the damaged tissue.

### 2. Stay indoors and cool off

To prevent permanent damage to the cornea, sufferers should immediately avoid exposure to direct

sunlight and quickly cool the eyes, e.g. using a cloth dampened in cold water or, if they can, a gel-filled mask or glasses. These can be purchased at a pharmacy or beauty and health retailer and provide fast pain relief.

### 3. No rubbing or scratching!

Even if your eyes are itchy, avoid rubbing them as this can make them more red.

### 4. Ditch your contact lenses for a pair of glasses

Contact lenses should be removed immediately to prevent any further irritation. It's advisable to stay in a darkened room until your symptoms subside.



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### 5. Chemists can provide quick relief

If the pain worsens and you can't see a doctor quickly, ibuprofen and paracetamol can help.

### 6. Prevention is better than cure

Prevention is the best kind of treatment – avoid suffering at all costs! A good pair of sunglasses, ski goggles or protective eyewear at work – all of which feature a UV filter up to 400 nm<sup>3</sup> – can protect the eyes against harmful UV rays. A good pair of sunglasses to protect against eye sunburn should have at least protection class 3, and if you're in the snow you need protection class 4. The protection class is normally indicated on one of the temples. Always ensure that your sunglasses can filter UV light that comes in from the top or the sides. Read on to find out more about when you need to protect your eyes against UV light. There are clear lenses that can also offer you full UV protection, always.

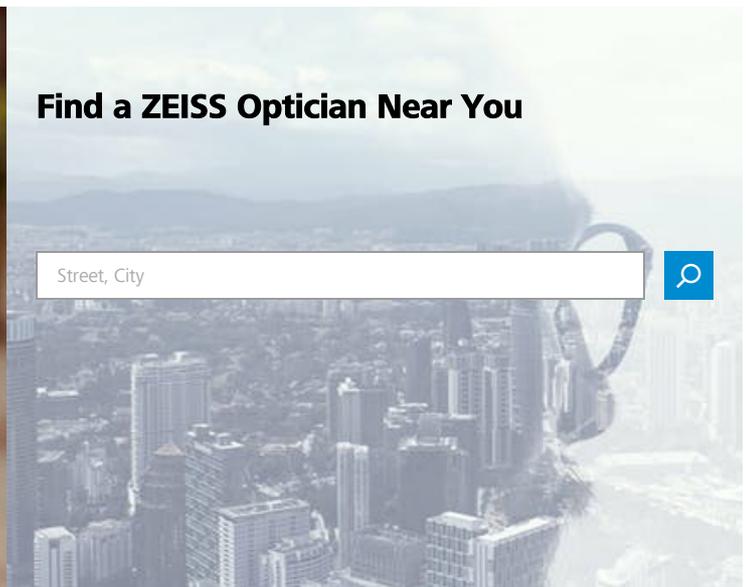
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<sup>1</sup> Slaney DH. Physical factors in cataractogenesis: ambient ultraviolet radiation and temperature. Invest Ophthalmol Vis Sci. 1986 May;27(5):781-90.

<sup>2</sup> [http://www.who.int/uv/uv\\_and\\_health/en/](http://www.who.int/uv/uv_and_health/en/)

<sup>3</sup> A range of healthcare bodies and studies have come to the conclusion that complete UV protection can only be guaranteed with a filter up to 400 nm. They include: the World Health Organization (WHO) and the International Commission on Non-Ionizing Radiation Protection (ICNIRP); Health Physics. (2004): 87(2) 171-186, American Conference of Governmental and Industrial Hygienists (ACGIH), ISO 21348 (definitions of Solar Irradiance Spectral Categories), Australian Sunlens Standard AS/NZS 1067:2003



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