



**INTERNATIONAL
WINDOW FILM
ASSOCIATION®**



Shielding Skin & Eyes: UV Protection with Window Film

WHY FILM?

Most people only use sun protection when planning to be outdoors, but harmful UVA rays penetrate through glass.

Years of daily UV exposure can add up to long term damage. Window film screens up to 99% of damaging UV radiation.

Whether driving or riding in a vehicle or sitting next to an office window, UV protective film can help limit cumulative UV radiation exposure.



Clockwork from top left: photoaging on man's face, Skin rash due to sun exposure, skin cancer melanoma, cataract in eye.



Effects of Ultraviolet Radiation on the Human Body

Skin cancer, photoaging, photosensitivity, and optical damage can all be caused or accelerated by exposure to UV radiation. It would be difficult or impossible to design a reliable study demonstrating that window film reduces the risk of these adverse health effects. However, the evidence is clear that a material reduction in the cumulative exposure to UV radiation can help limit these risks.

SKIN CANCER

For current and independent information on skin cancer and preventative measures including window film visit skincancer.org.

PHOTOSENSITIVITY

UV radiation can cause a sun poisoning rash, exacerbate symptoms in 40-60% of lupus patients, and lead to childhood skin cancer in XP, a hereditary disease.

OPTICAL DAMAGE

UV radiation can contribute to various forms of eye conditions such as cataracts, macular degeneration, and others.



What is UV radiation and what damage does it cause?

The sun emits energy to Earth as electromagnetic radiation, which is categorized into ultraviolet (UV), visible, and near-infrared bands. UV radiation has a higher frequency and is divided into three types: UV-C, UV-B, and UV-A, in descending order of energy.

The Earth's atmosphere blocks UV-C and part of UV-B. Glass naturally

filters out most UV-B, which is the primary cause of sunburn. UV-A, however, makes up over 90% of the UV radiation that reaches the Earth's surface.

Skin consists of two main layers: the thin, constantly renewing outer epidermis and the much thicker inner dermis, which is about 40x thicker.

Skin Cancer

There are four main types of skin cancer: basal cell, squamous cell, melanoma, and Merkel cell, each with a significant causal link to UV radiation.

Photoaging

Photoaging is characterized by wrinkles, coarsening, loss of elastic behavior, and pigment changes. Up to 90% of visible skin aging is due to UV radiation exposure, especially UV-A.

Optical Damage

Children's eyes do not develop the ability to screen UV and blue light until adulthood so protection is key. In some people certain wavelengths of light can cause or exacerbate mental health issues.

Did You Know?

UV AND BABIES

Sunscreen is not recommended for babies under 6 months. Window tint can be an important element of a UV protection plan.

SKIN COLOR

Emerging research indicates that medium and dark skin pigmentation is damaged by blue light not screened by sunscreens. Window film can help visible light exposure.

STATE WINDOW TINT LAWS

Laws vary by state for window tint application. Visit iwfa.com for complete information and to download a medical exemption form if needed.

ADDITIONAL BENEFITS

UV Protective window films can help protect fabrics, finishes, and furnishings from premature fading.

Solar window films for vehicles, residences, and commercial spaces will provide UV protection along with heat and glare benefits.

Safety and Security window films also provide UV protection in addition to their other benefits.

Window films can be almost invisible, highly reflective, very light, very dark, or anywhere in-between depending on the application.

Visit iwfa.com to see all the benefits of window film.

TECHNICAL BULLETINS

[Delayed Entry UV Skin and Eye Protection](#)