

### A "beautiful tan" is really sun damage.



Our UV "detect" camera helps detect the first signs of overexposure to the sun by helping to detect skin pigment and textural abnormalities that are invisible to the naked eye.

The camera takes photos with both full spectrum light and ultraviolet light. When the photo is taken using a specialized UV filter, the light penetrates the skin and is absorbed by the melanin. The resulting photographs give a rare look at the damage the sun has exerted over the skin. Seeing the photo can be a shock the individual receives upon seeing the images is in itself a useful tool for convincing them to stay out of the sun.

Most people who sunbathe disliked being pale more than fear the consequences of the sun. They feel that as long as they wear a little sunscreen and didn't peel, they think they are okay. After years of persistent tanning, their skin appeared perfectly intact. In order to take this sun thing seriously it seems that individuals require visible proof that their skin was suffering.

Skin Cancer is an increasing problem. "One in five Americans will get skin cancer sometime during their life. In fact, one-half of all new cancers are skin cancers." Over 800,000 new cases of skin cancer are estimated annually in the United States, making skin cancer the most common form of cancer. Fortunately, it is one of the most curable forms of cancer when discovered early. The spiraling skin cancer rate's chief villains are the sun's ultraviolet rays.

**Overview:** Excess UV exposure, which can eventually lead to wrinkled and hyper pigmented skin, is demonstrated in UV photography as uneven and patchy darkness, and rough, lined skin texture. The type of UV exposure that creates this type of damage is the same type of UV exposure, which increases a person's risk of skin cancer. It is important to emphasize that the darker uneven tone being seen is damage in response to the kind of UV exposure, which can be harmful.

#### What is commonly found in our UV Photography?

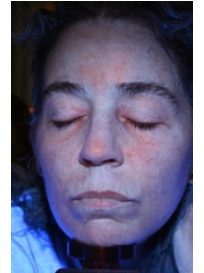
- **Severe freckling:** Indicates an inefficient pigmentary response. In other words, the melanin in this skin type is not distributed evenly and leaves many areas unprotected from the sun. Most commonly seen in very fair skin types.
- **White spots:** Indicates areas where the pigment cells have been destroyed due to UV exposure. These areas have

suffered the severest part of the sunburn and should be watched and protected carefully. Commonly seen in very

fair-to-fair skin types. The whitish spots in the photo, completely devoid of pigment, could be future targets for cancer growth.

- **Evenly dark color:** Shows up as uniformly dark under ultraviolet light, this is a sign of well-distributed protective pigment. Commonly seen in darker, more Mediterranean skin types.

- Persons with **darker skin types** (Mediterranean or African decent) will photograph much darker overall. This is due to the higher amounts of pigment naturally occurring in their skin.



- **Changes** seen under UV photography are not precisely what the skin will look like in the future; rather, they indicate what the skin may look like in the future. Efforts to avoid their ultimate appearance on the surface of the skin should include the use of sunscreen daily and consistently as part of a skin care regimen. This will help to avoid future damage by UV rays.

**Summary: Our bodies keep score** on the amount of radiation we take in, and when the numbers get too high, the body reacts. Normally, if abnormalities occur during cell division, enzymes repair the damage. Overexposure from too much sun can put these enzymes out of commission.

Skin cancer is the most common form of cancer in the United States and the incidence is rising faster than any other type of cancer. While skin cancers can be found on any part of the body, about 80 percent appear on the face, head, or neck, where they can be disfiguring as well as dangerous. Fortunately, it is one of the most curable forms of cancer when discovered early. **The spiraling skin cancer rate's chief villains are the sun's ultraviolet rays.**

Overexposure to the sun's rays affects people of all ages and all skin types throughout the year. Any time the sun's ultraviolet (UV) rays are able to reach the earth there is a risk for excessive sun exposure. The ultraviolet (UV) portion of sunlight is an invisible form of radiation that can penetrate and change the structure of skin cells.

Exposure to UV rays appears to be the most important environmental factor in the development of skin cancer and has also been associated with various forms of eye damage, such as cataracts.