



PATIENT INFORMATION SHEET

Solar Cheilitis

What is the cause? Solar cheilitis (also known as actinic cheilitis or cheilosis) is a degenerative condition of the tissue of the lips after years of exposure to ultraviolet (UV, mainly UVB) light, such as sunlight. It is a premalignant condition.

Who is most at risk? Solar cheilitis is more common in adults and the risk increases with age. Men are affected more commonly than women. Individuals with fair skin (less protected from the sunlight) have a higher rate of solar changes. Outdoor workers who do not use sun protection are particularly at risk.

What does it look like? Solar cheilitis predominantly affects the lower lip because it tends to be more prominent. The homogenous pink color of the healthy lip (Figure A) is replaced with non-homogenous white/gray, pink, red, or brown areas and the normally sharp vermillion/skin border becomes less distinct (Figure B). In more



advanced stages, the lip may appear cracked or show ulcerations (ie sores) or crusting. Firmness or a non-healing ulcer within these changes may indicate an early cancer (Figure C & D below).



Figure C: Carcinoma of the lip as an ulcerated area (arrow) in a 50 year-old male with a fair skin.

Figure D: Lip after surgical removal. Solar cheilitis is still present and the patient is being followed-up every 4 months.

Is there a risk for lip cancer? Chronic exposure to the UV light can cause mutations (damage in the DNA) in the cells that make up the skin covering the lip. Over time this may lead to precancerous changes and eventually, in some cases, a cancer known as a squamous cell carcinoma.



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How is this diagnosed? A biopsy of the suspicious area followed by microscopic examination is often recommended.

Is there a treatment? The tissue damage in solar cheilitis is irreversible. Sun protection at any stage can only prevent further damage. If your doctor recommends removal, smaller premalignant lesions can be easily removed with minimal surgery. In more widespread lesions, an operation referred to as a “lip shave” may be performed in which the covering of the lip is removed. Squamous cell carcinoma of the lip has a good prognosis if diagnosed in the early stages. All patients with a history of premalignant lip lesions or squamous cell carcinoma require periodic follow-up to monitor for additional changes or recurrences.

QUESTIONS AND ANSWERS ABOUT SOLAR CHEILITIS:

Q: My father had solar cheilitis and a lip carcinoma; is it inherited?

A: Lip carcinoma is not genetic, but the tendency to develop cancer as a result of chronic sun exposure may be genetic. If your father has light skin and you do as well, similar sun exposure would place you at risk. Periodic examination to monitor changes in the lips is advisable.

Q: Can solar cheilitis be avoided?

A: Yes. Solar cheilitis is an irreversible change. The best treatment is to prevent its occurrence or to limit additional damage. At any stage, further changes can be prevented by avoiding prolonged exposure of the lips and/or skin. Using a broad brimmed hat, sunscreen or sun blocking agents on the lips (SPF 15 or greater) helps avoid further damage.

Q: How can I prevent the development of any actinic-related diseases in my children?

A: Children should be taught to avoid long exposure to the sun, use hats and sun protection such as sunscreen and lip balm of at least SPF 15. They will appreciate the results of this as they retain youthful skin when they are older.

Q: Is indoor tanning in salons dangerous?

A: You should be just as careful as when you are exposed to the sunlight. Scientific publications have reported damage caused by tanning depending on dosage and age. Younger people should be more careful.

Q: Can I use lipstick if I have been diagnosed with solar cheilitis or dysplasia?

A: Yes, but you should try to use those that contain sunscreen.



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Q: Are the lip changes related to skin lesions?

A: The lip lesions indicate that you have had a significant exposure to the sun and your skin is also sensitive to solar radiation. Similar changes can be found on other exposed areas such as the scalp or the face. Once you have been diagnosed as having a lip or skin lesions caused by sun exposure, you should be screened periodically for changes in other exposed areas.

Recommended Links:

The Oral Cancer Foundation

<http://www.oralcancerfoundation.org>

Caring4Cancer

<http://www.caring4cancer.com/go/headneck>

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