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# Don't want you under my skin

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Skin cancer is on the rise in China and experts say this is because most people do not know how to protect themselves properly from too much sun. **Liu Zhihua** finds out the details.

xperts are saying they are seeing more skin cancer among Chinese, and they warn that this deadly form of carcinoma is likely to increase. They say people are going the wrong way about Dai and Jingpo autonomous prefecture in Yunnan province. It is a place where the sun shines strongly almost every day of the year.

Yin says he is amused to see how people from Beijing go overboard in hiding from the sun. "Women always wear sun lotion and use umbrellas, and even men use sunscreen, too," Yin observes. "That is absurd to me. A man doesn't need to look fair-skinned."

#### TAKE THESE TIPS

The best time to get a healthy tan in summer is 10 am and after 4 pm.
"Sun protection clothing" is made from material that can

## Dressed for the sun

By LIU ZHIHUA liuzhihua@chinadaily.com.cn

As we experience the hottest days of summer in Beijing, sunscreen, sunglasses and umbrellas are flying off the shelves. And joining the list is clothes that protect you from the sun.

It is claimed that "sun protec-

clothing" can do the job.

"Strictly speaking, sun protective clothing refers to clothes specifically designed for sun protection, and is produced from a fabric with ultraviolet protection function," says Zhao Guoliang, head of the School of Material Science and Engineering, Beijing Institute of Fashion Technology.



good for you.

Although there are no national surveys as yet, numbers in Beijing and Shanghai show that the incidence rate of melanoma is five times higher than it was five years ago, according to Guo Jun, chairman of Society for Melanoma Research in Asia and Pacific Area, and vice-president of Beijing Cancer Hospital.

That means one out of every 100,000 people in these two cities have the skin cancer.

Dermatologists are also seeing more patients with these symptoms, says Tu Ping, a famous skin cancer specialist at the Peking University No 1 Hospital.

"Among the possible factors contributing to skin cancers, sun damage is the prime cause, and it is a cumulative effect," Tu says. He sees about 600 skin cancer patients a year on average.

"Some people are not aware of the importance of sun safety, and some others try to block out sunlight as much as possible. Both approaches are wrong," Tu says.

All cancers are caused by DNA mutations, which can be inherited, but in most cases, are built up over a person's lifetime by environmental factors.

Ultraviolet rays, mostly, ultraviolet-B in sunlight, is responsible for DNA mutation in skin cancers, Tu explains.

"People think they should avoid getting tanned, when they think of sun protection. That's not correct," says Guo Jun, the melanoma specialist.

"Repeated overexposure to sunlight will lead to skin irritations, such as allergies and blisters. But, there is a more dangerous effect — it may trigger skin cancers," Guo says.

When too much sun damages skin cells, the human body will try to repair them. In the process, DNA mutations and abnormal growth may happen, Guo says.

Different skin cancers result when various types of skin cells are affected. The good news is: Unlike other cancers, most skin cancers, such as basal cell carcinoma, can be treated, although the treatment can be disfiguring.

Melanoma is actually easy to treat if diagnosed early. However, it is usually not noticeable at the beginning, and without treatment, it can spread quickly throughout the body, and become life threatening.

"People have been wearing less and less in past decades, and they travel more and participate in outdoor sports more as well," Guo says. "These factors may also contribute to the rising rates of skin cancers."

It takes years or decades to develop skin cancers, but each time, sunburn increases the possibilities, he adds.

"Most of my skin cancer patients are over 40, and they cared little about sun safety in their younger days," Tu, the dermatologist, says.

"Nowadays, ordinary people, especially young people, are more aware of their appearance and getting protection from the sun, but they sometimes go overboard."

While Westerners consider tanned skin healthy and attractive, most Chinese think a fair complexion is more desirable.

Many Chinese women try to avoid ultraviolet exposure as much as possible, and use a lot of whitening products.

Tu thinks that is unwise.

Beijing resident Chen Yingshu, for instance, wears sunscreen in all seasons, no matter whether it is sunny or raining, and she rarely goes without her umbrella in summer.

It takes her half an hour to remove her sunscreen and make-up, but she thinks it's worth the effort because she says her skin looks tighter, fairer and younger, compared with her peers.

Experts say she is actually increasing her risk of getting skin cancers.

"The whiter the skin is, the more vulnerable it will be to skin cancers," Tu says.

For those who grew up in areas that are exposed to strong sunshine, being in the sun is part of life.

Yin Chao is a writer now living in Beijing, but he grew up in Dehong At home, he says, only women use sunscreen. He himself is happy to go unprotected, even years after he came to Beijing

"My skin is always as red as a shrimp in summer," Yin says. "I never use sunscreen, and I don't wear sunglasses, either."

Generally, ultraviolet-A is the major cause of skin tanning and aging, and ultraviolet-B is responsible for blisters and cancers. Because darker skin has a stronger ability to reflect and absorb ultraviolet rays, the tanning process is actually a natural defensive mechanism the skin uses to protect itself from skin cancers, Tu explains.

"Sunlight helps the body produce vitamin D needed to better absorb calcium and to produce chemicals that fight depression," he says.

"The human body needs sunlight. It is not necessary to stay out of the sun all day."

In summer, when ultraviolet rays are stronger, normal, everyday clothes are protection enough against harmful ultraviolet-B radiation. For limbs, the face and hair, an umbrella and a hat may help.

But even so, the experts themselves have differing opinions. For example, Wang Xin, director of the dermatology department of Tsinghua University No 1 Hospital, does not agree completely with what Tu says.

"Ultraviolet A and B are man-created concepts. In nature, there is no such clear-cut division," Wang says. "Just as there is no evidence to show ultraviolet-A directly causes skin cancers, there is also no evidence that ultraviolet-A does not cause them either."

He suggests people wear protective clothing in ultraviolet-saturated environments, such as in summer and on the beach.

He also says that it is unnecessary to bleach the skin with chemical products.

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reflect or absorb ultraviolet rays.

• Dark-colored clothes absorb ultraviolet rays, while lightcolored clothes reflect them. The best choice of color in summer is red.



#### SUNSCREEN GUIDE

• Sunscreens work through scattering, absorbing and/ or reflecting ultraviolet rays. They can be categorized into physical sunscreens or chemical sunscreens. They have an SPF and PA label.

• SPF is the abbreviation for "sun protection factor", which offers protection from UVB, while PA, the protection grade of UVA, helps guard against UVA.

The bigger the SPF and PA indices are, the stronger the sunscreen will be against ultraviolet rays, if used correctly.

• Choose a sunscreen based on your skin type and the activities you take part in.

• Sunscreen must be applied at least 15 minutes prior to sun exposure, and usually needs another application every two hours.

• Remove sunscreen with make-up remover or cleanser.

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tive" clothing reduces damage from ultraviolet rays in summer, and the sales pitch is obviously convincing.

Ji Meng, a white-collar worker in Tai'an city, Shandong province, bought some a few days ago because she planned to take up driving lessons this summer.

The young woman pays a lot of attention to sun protection and uses sunscreen every day. She is also a frequent customer on Taobao.com, a popular Chinese online marketplace.

This was where she discovered sun protective clothing, and she bought some without a second thought.

"There were so many shops selling sun protective clothing, and I couldn't help noticing them," Ji says.

says. "Most of them were very cheap. I bought a piece for a few yuan. I thought, that's OK even if it does not work."

Most sun protective clothing consists of thin, long-sleeved hoodies that are in just one, light color and are sometimes transparent.

When Ji received the clothes she ordered, she says she thought they were pretty, but very thin.

"I really doubt it can block the sunlight," Ji says. "It's not a big deal. I didn't spend much money on it." Actually, not all "sun protective The idea was first popularized in Australia, and since the mid-1990s many other countries, such as the United Kingdom and the United States, have adopted laboratorytested procedures before labeling the clothing sun protective.

In China, although there are no industry standards for such clothes, there are regulations on rating fabrics for their levels of ultraviolet protection.

Usually, the sun protection factor, or SPF, is an index of the function. The higher the SPF is, the stronger the ability of the fabric to block ultraviolet light.

"The sun protective properties of a fabric come from a special procedure that costs time and money," Zhao says. "Not all clothing manufacturers have the ability or the will to produce or buy such fabrics."

Some fabrics make use of a novel weave structure, and are treated with chemicals to enhance protective properties during manufacture.

Some are treated with ultraviolet-inhibiting substances after production to enhance their ultraviolet blocking capacity, Zhao explains.

<sup>a</sup>For the ordinary consumer, it is best to buy sun protection clothing from trusted brands, and make sure there are SPF labels attached," Zhao says.



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Many people use umbrellas to protect themselves against ultraviolet rays in summer.