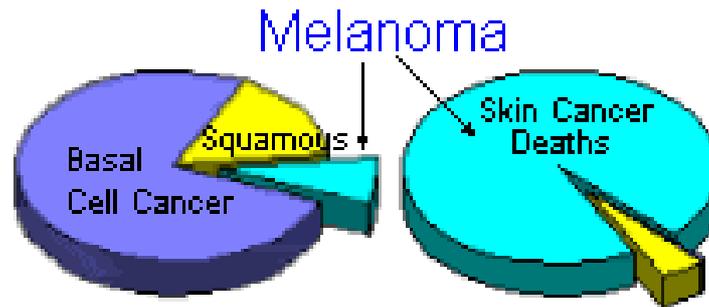


A: What is melanoma?

Melanoma is a tumour of the skin - or skin cancer¹. Skin cancer is the most common type of cancer that affects² mankind. It is usually caused by UV radiation from the sun. The sun's UV rays transform the DNA (genetic material) of the skin's cells. This causes the cells to divide and grow abnormally and tumours like a melanoma are formed. Luckily most skin cancers can be treated. Melanoma is one of the three types of skin cancers. It is the least common but by far the most deadly.



Melanoma is the least common type of skin cancer (shown on left), but causes the most skin cancer deaths (shown on right).

Melanoma usually begins as a dark brown or black patch with irregular borders which typically is a sign of the uncontrolled growth of melanocytes. A melanoma looks a lot like a normal mole³ and doesn't really hurt, so it is hard to detect.



Image Source: http://skincancer.dermis.net/content/e04typesof/e154/e155/index_eng.html

¹ cancer = Krebs

² to affect = betreffen

³ mole = Leberfleck

B: Who can get melanoma?

Patients with a family history of melanoma are at higher risk of getting melanoma than people who don't have any relatives who have had a melanoma. Another risk factor is the number of moles¹ you have on your body because 1/3 of all melanomas develop out of normal moles. Patients who have already had melanomas are also at higher risk of developing a new melanoma.

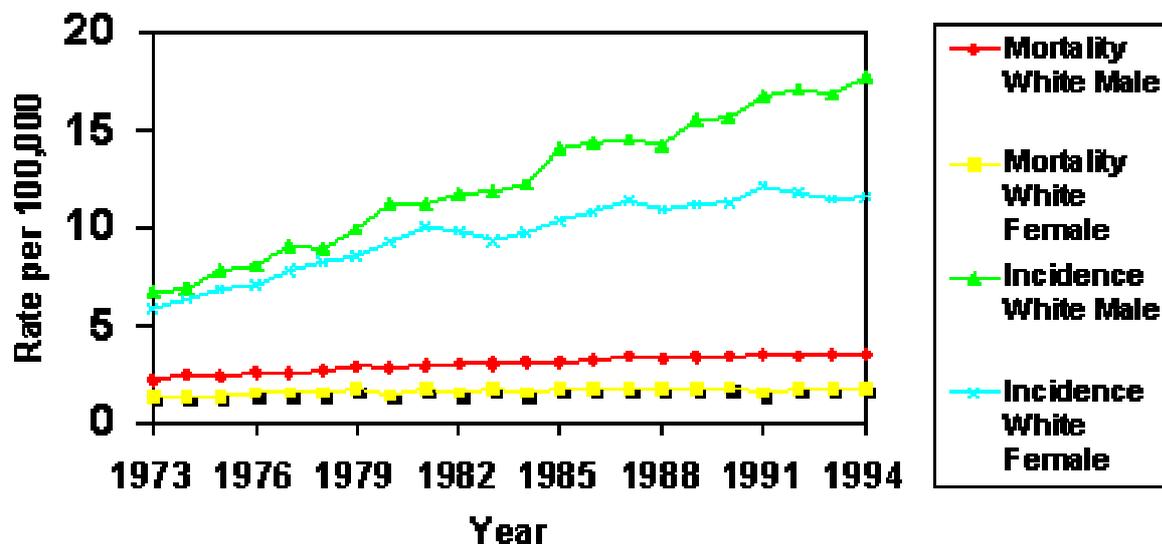
As people with red or fair hair, blue eyes, fair skin and freckles² are less tolerant to sun exposure they get sun burns more frequently. That's what raises their risk of getting melanomas: the more sunburns with blisters³ a person gets as a child, the higher their risk of getting a melanoma.

This form of cancer occurs mainly in the 40-60 year age group, but it can occur at any age. However, children are rarely affected⁴.

Although melanomas can affect most parts of the body, the most common place for women to get them is on the legs, whilst in men, it is on the upper body, particularly on the back.

Over the past 60 years, damage to the planet's ozone layer has increased the amount of harmful radiation that reaches your skin. The result is a higher number of patients with melanoma.

The diagram shows the number of diagnosed malignant⁵ melanomas (incidence) and the number of people dying from malignant melanoma (mortality) per 100,000 people per year in the USA. Describe and interpret the graph.



Source: <http://www.cdc.gov/excite/skincancer/mod14.htm#b1>

¹ mole = Leberfleck

² freckles = Sommersprossen

³ blister = Blase

⁴ to affect = betreffen

⁵ malignant = bösartig

C: How can a melanoma be detected?

100% of all skin cancer¹ could be cured if they were detected before they had a chance to grow. That's why people (especially those at risk of getting cancer) should check their bodies regularly for new growths or any moles² that changed. The ABCD of Early Melanoma Diagnosis gives you some signs to look for when checking moles and growth on your body.

Norma Mole	Melanoma	Melanoma ABCD
		A stands for asymmetry (one side looks different than the other). Most melanomas are asymmetrical: one half does not look like the other half. Most normal moles are round and symmetrical.
		B stands for border irregularity. The borders of melanoma are often uneven and have notched edges ³ . Normal moles are almost always round with smooth edges ³ .
		C stands for colour variation with various shades of brown, black, blue, red and white found in one melanoma. Normal moles are almost always a single shade of brown.
		D stands for diameter more than 6mm. Melanomas usually grow larger than normal moles. Normal moles are rarely larger than 6mm (back of a pencil).

(Image Source: http://uuhsc.utah.edu/healthinfo/images/ep_0137.gif)

If you think that one of your moles look abnormal, it is important that a doctor has a look at it. Only he or she can tell for sure whether your growth is a melanoma.

¹ cancer = Krebs

² mole = Leberfleck

³ notched /smooth edges = eingekerbte /glatte Ränder

D: How can melanoma be prevented?

One of the most important things you can do in order to prevent melanoma is to make sure you don't get a sunburn. Stay out of the sun between 11am and 3pm when it is at its strongest.

Sunscreen helps to block the rays of ultraviolet light. Dermatologists¹ recommend² at least SPF 15 (sun protection factor). Don't be fooled by SPF 30. It does not give you double the protection of SPF 15; it gives you 3% more.



Put sunscreen on again after coming out of the water, even if it says waterproof. Remember, even if you are in the shade there is still UV radiation. Look around you. UV light is reflected by all sorts of surfaces, particularly water, sand and snow - even grass. That's why you can get UV radiation in the shade: If you're sitting under an umbrella at an outdoor cafe, the sun can bounce off that stainless-steel table and into the deeper layers of your skin.

You should keep in mind that on a sunny day protective clothing, such as hats and long-sleeved T-shirts and sun glasses can also block out the sun's harmful rays.

Sun protection is most important for babies, little children and teenagers. Babies under six months of age are too young for sun screen and should simply be kept out of direct sun as much as possible. Two-thirds of sun damage is done before you reach your 15th birthday.

¹ dermatologist = Dermatologe, Hautarzt

² to recommend = empfehlen

Text to check understanding.
(Homework / Work with Partner)

Manchester, October 2nd 2005

Dear Doctor Jones,

I am very sorry you had to miss the melanoma conference, but I understand that you had to travel to Stuttgart on important business.

Let me tell you about the main things I learnt at the conference. We all know melanoma since it is the most common type of skin cancer and very painful. It is caused by UV-radiation. The radiation transforms the cell's genetic material (DNA). Normally a cell with transformed DNA just dies off, but in the case of melanoma something terrible happens: the cells with the transformed DNA just won't stop dividing and form a tumour.

But don't worry, since you are a dark-haired man younger than 40 without a family history of melanoma and have never had a sunburn (at least that is what you've told me) you will definitely never get melanoma.

Some of your patients, however, are at risk. If I were you I would give them the ABCD (a= asymmetry, b= blood, c= colour, d= diameter) of early melanoma detection so they can decide themselves whether their moles are melanomas.

I also learned that using sunscreen is the best protection, so I'm going to make sure to take lots of sunscreen with SPF 40 on my holiday in two weeks especially for baby David. Another interesting thing I have learned is that UV radiation can bounce off shiny surfaces and can harm people sitting in the shade. So please keep that in mind.

Looking forward to talking to you soon,

Dr Earplug