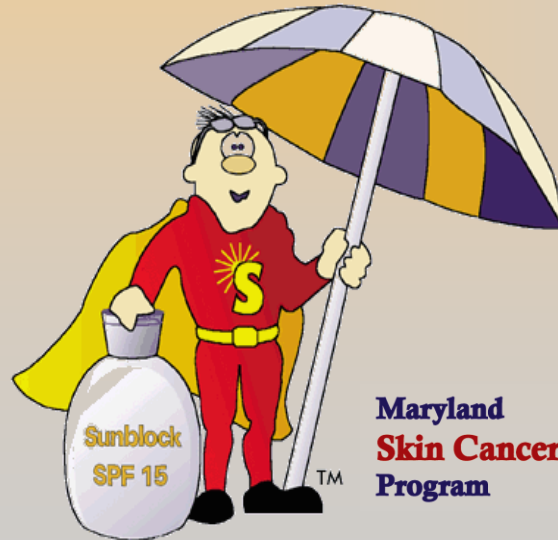




# *Sun Safety and Skin Cancer Prevention*

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**Maryland  
Skin Cancer Prevention  
Program**

Maryland Skin Cancer Prevention Program



## *Do You Know the Facts About Skin Cancer?*

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- ★ Skin cancer is the most common cancer but also the most preventable
- ★ **Childhood sunburn is the most common cause of skin cancer**
- ★ More than 2 million skin cancer cases are diagnosed in the US each year
- ★ **One in every two cancers is skin cancer**
- ★ One in every five Americans will develop skin cancer during a lifetime



## *What Causes Skin Cancer?*

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- ★ Skin color is determined by activity level of melanocytes in epidermis
- ★ UV radiation causes increased activity in melanocytes, releasing the **pigment producing substance called melanin**: causes freckles, tanned and sunburned skin
- ★ Sometimes this leads to changes in cell structure and function: causing cancer



# *Ultraviolet (UV) Radiation and its Effects*

- ★ UVA rays: longer and cause wrinkling and tanning
- ★ **UVB rays: shorter and cause burning**
- ★ UVC rays: are burned up upon entering the earth's atmosphere





# *ULTRAVIOLET RAYS:*

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- ★ UVA & UVB rays from the sun cause skin damage.
- ★ UVB rays cause sunburns
- ★ UVA rays don't burn but penetrate more deeply and cause wrinkling and tanning



# *The Dangers of UV Radiation*

Overexposure to UV  
Radiation causes:

- ★ Sunburn
- ★ Freckling
- ★ Tanning
- ★ Premature aging (wrinkles)
- ★ Skin Cancer
- ★ Cataracts
- ★ Immune system depression





# *When is UV Radiation Most Intense?*

- ★ In the middle of the day  
(Between 10 a.m. and 4 p.m.)
- ★ During the summer months
- ★ At higher altitudes
- ★ In regions of the earth closer to the equator
- ★ UV can penetrate more than 3 ft. of water

**Use the UV Index as a tool to help plan your outdoor activities.**





## *Do You Know the Three Main Types of Skin Cancer?*

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### ★ Basal Cell Carcinoma

75% of all skin cancers



### ★ Squamous Cell Carcinoma

20% of all skin cancers



### ★ Melanoma

5% of all skin cancers but is responsible for 75% of skin cancer deaths





## *Facts about Melanoma*

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- ★ Melanoma rates are rising faster than any other cancer in the U.S. and have doubled in the last 30 years. While mortality from most cancers is down, melanoma mortality rates continue to rise.
- ★ About 1,300 cases of melanoma will be found in Maryland this year
- ★ Approximately 8,000 people in the U.S. will die this year from malignant melanoma = one person/hour

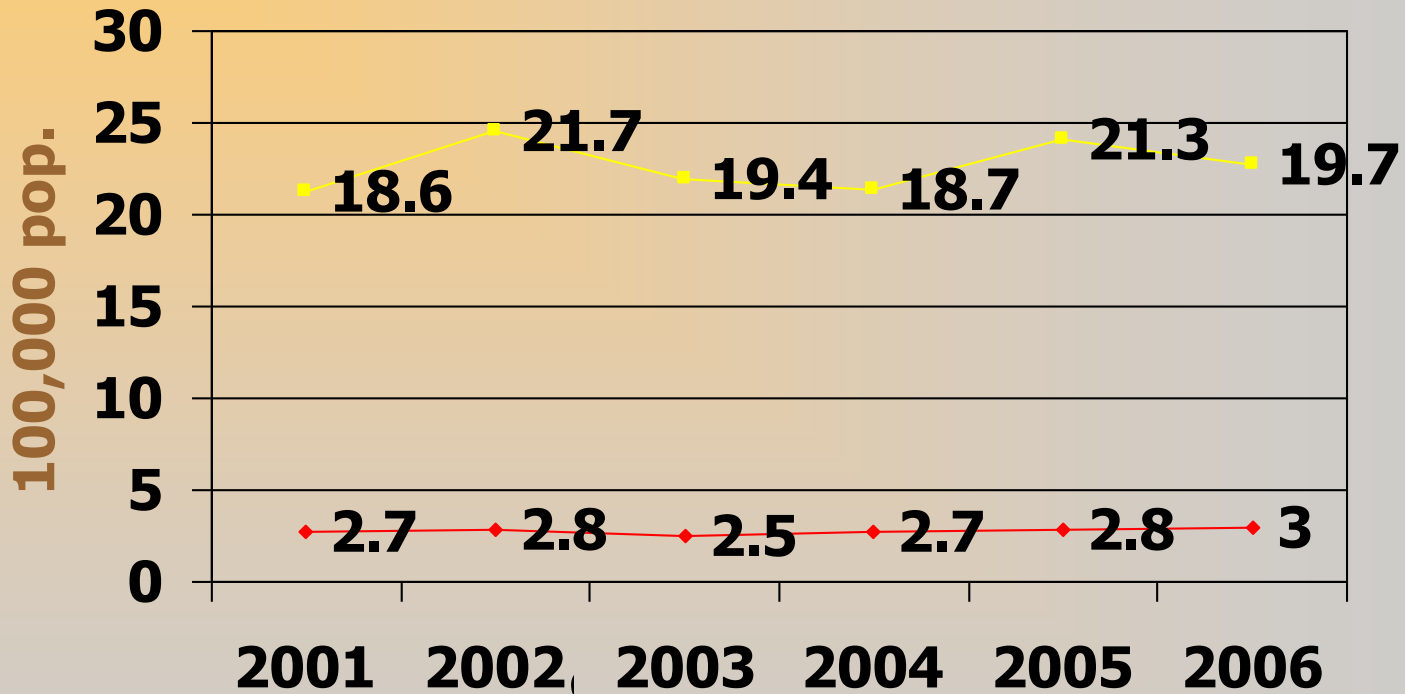


# Melanoma Incidence & Mortality

by Year of Diagnosis or Death, Maryland 2001-2006

Ref: Maryland DHMH Cancer Report 2010

Age-adjusted rate per  
100,000 pop.



Year of Diagnosis or Death

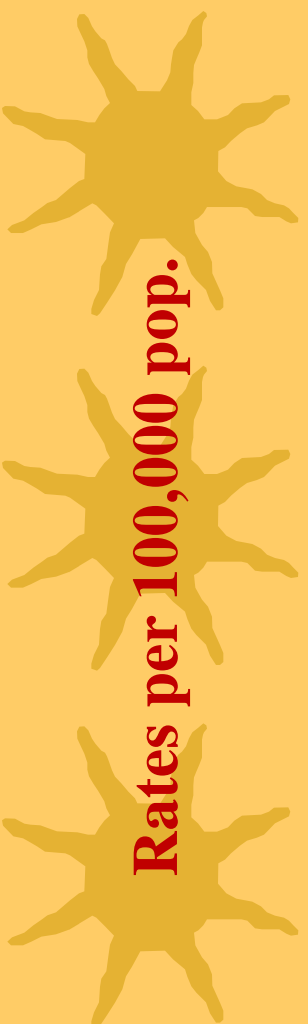




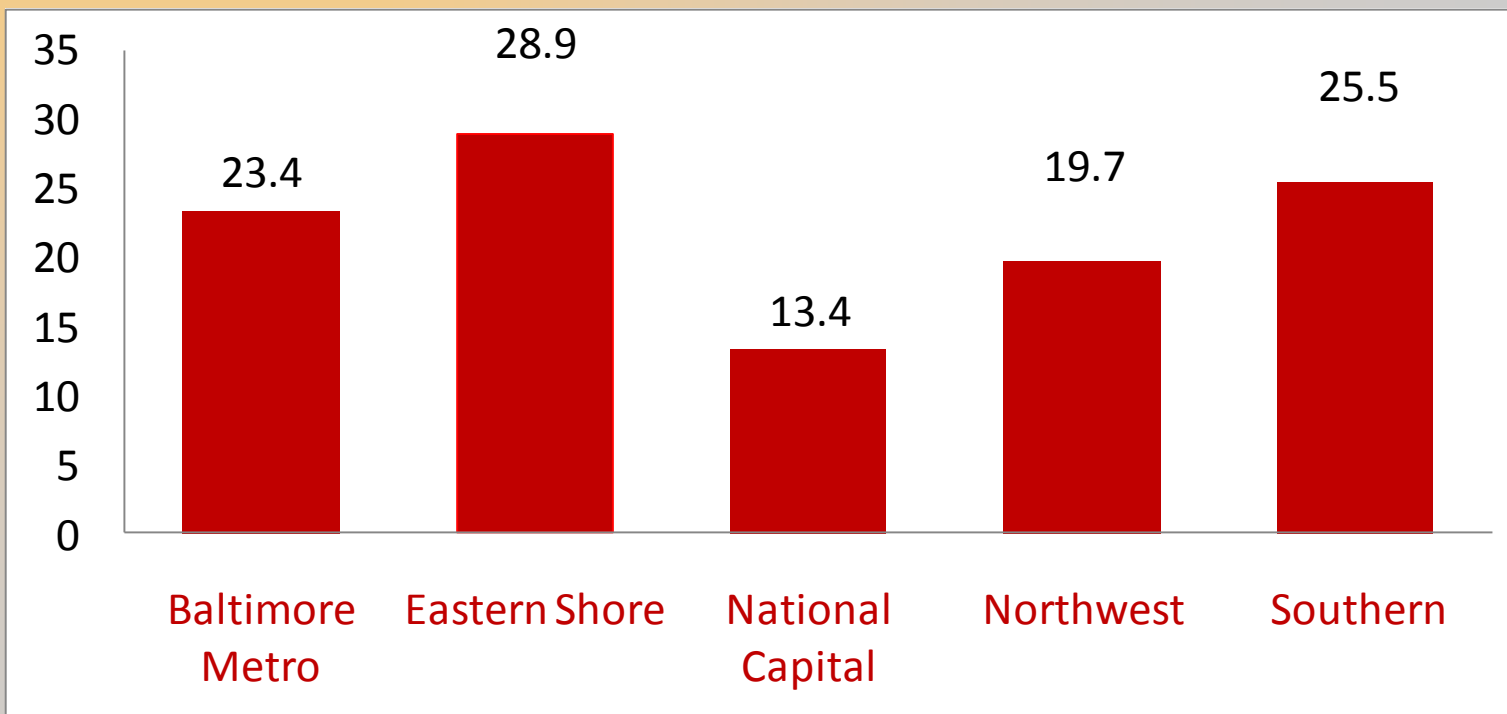
# *Melanoma Rates by Maryland Region: 2002-2006*

*Maryland Rate = 20.2 per 100,000*

*Ref: Maryland DHMH Cancer Report 2010*



**Rates per 100,000 pop.**




**Maryland Region**



# *Why Are Skin Cancer Rates Rising?*

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- ★ Social acceptability of a tan
  - ★ More leisure time
  - ★ Less clothing worn
  - ★ Depletion of ozone layer
  - ★ Use of artificial tanning sources
  - ★ Earlier sun damage now showing up as skin cancer
- 



# *Changes in Fashion Through the Years and Melanoma Risk*

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☀ In the early 1900's, the lifetime risk of melanoma was 1/1500

☀ In 2001 the lifetime risk of melanoma was 1/710

☀ In 2015 the lifetime risk of melanoma will be 1/50





# *Signs of Melanoma*

## *What are the ABCD's?*

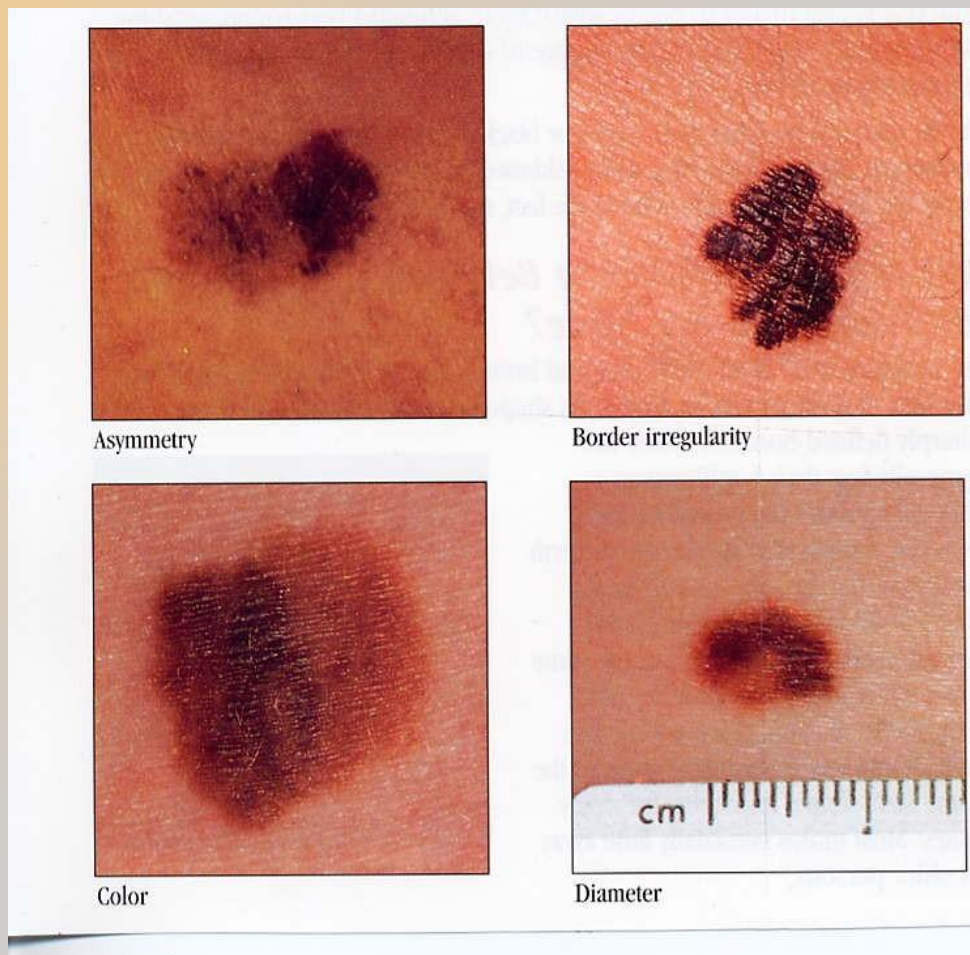
★ *Asymmetry*

★ *Border*

★ *Color*

★ *Diameter*

★ ***CHANGE!***







# *Who is at Risk for Skin Cancer?*

- ★ Fair skin, burns easily
- ★ **Light hair, red hair**
- ★ Blue, green or hazel eyes
- ★ **Freckles**
- ★ Many moles
- ★ **Family history**



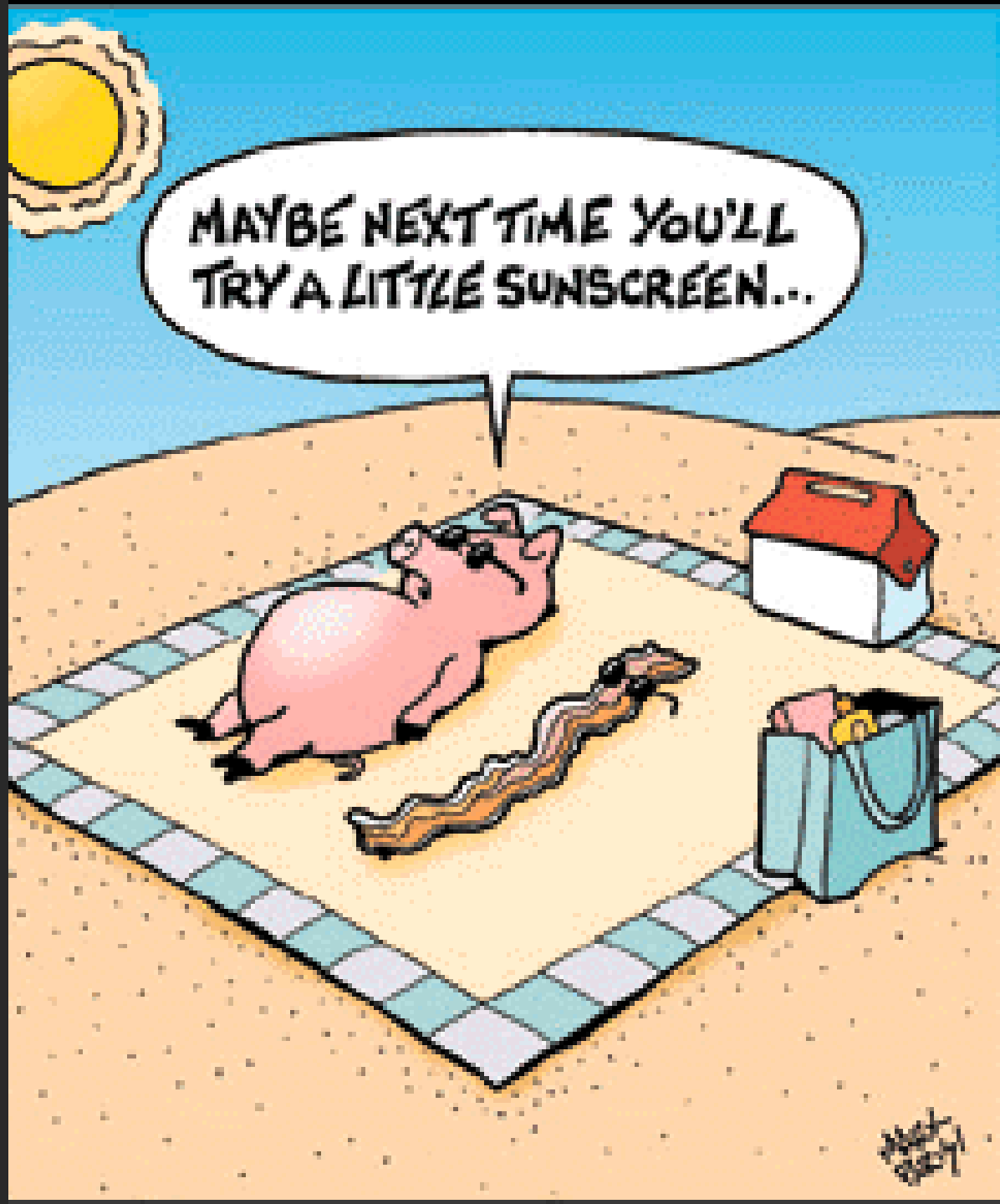




# *Protective Measures*

- ★ Avoid midday sun
- ★ **Cover up**
- ★ Use sunscreen
- ★ **Apply liberally and often**
- ★ Avoid reflective surfaces
- ★ **Seek shade in the middle of the day**
- ★ Avoid tanning beds





MAYBE NEXT TIME YOU'LL TRY A LITTLE SUNSCREEN...

Mark  
Smyth

# *Sunscreen Use*

- ★ SPF 15 or higher, broad spectrum (UVA/UVB)
- ★ **Apply 20 minutes before going outside**
- ★ Use 1 ounce per application
- ★ **Reapply every 2 hours or more often if swimming or sweating**





# *SPF Explained*

- 
- ★ Sun Protection Factor (SPF)
  - ★ **Minimum SPF of 15 recommended**
    - When applied properly and reapplied often, this is sufficient for most skin types. SPF 30 is NOT twice as effective as SPF 15.
  - ★ SPF 15 protects you from 93% of harmful UVB rays; SPF 30 from 97%. Higher SPF sunscreens don't really give you a lot more protection for your dollar!
  - ★ **Use sunscreen with physical blockers like zinc oxide for non-allergic and immediate protection.**





## *Dispelling a Common Myth*

- ★ Myth: But a good “base tan” will protect me from sunburns and sun damage!
- ★ Fact: A tan is the skin’s response to injury. There is no such thing as a healthy tan.





# *Tanning Beds are NOT Safe!*

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- ★ Studies show tanning beds are linked to skin cancer and premature aging
- ★ Indoor tanning lamps emit UVA and UVB radiation at levels that can be as much as **15 times stronger** than the sun
- ★ If you must be tan, use a self tanner. You still must use sunscreen





# *Tanning Beds and Minors*

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- ★ Melanoma rates have risen 50% among young women since 1980
- ★ 37% of 17 year old girls report using tanning beds
- ★ Using a tanning bed before age 35 increases melanoma risk by 75%
- ★ Since October 1, 2008 minors need in-person parental consent to use a tanning facility in Maryland



“TRUST ME,



Rachel, 18, melanoma survivor

A TAN IS  
**NOT**  
WORTH THE  
TROUBLE”

*Ultraviolet radiation from tanning beds and from the sun can cause skin cancer*

Maryland Law Requires Minors  
To Have Parental Consent  
To Use A Tanning Bed



Center for a  
**Healthy Maryland**  
www.healthymaryland.org

Illustration: Department of Health and Human Resources, Maryland Department of Health and Human Resources, Maryland Department of Health and Human Resources

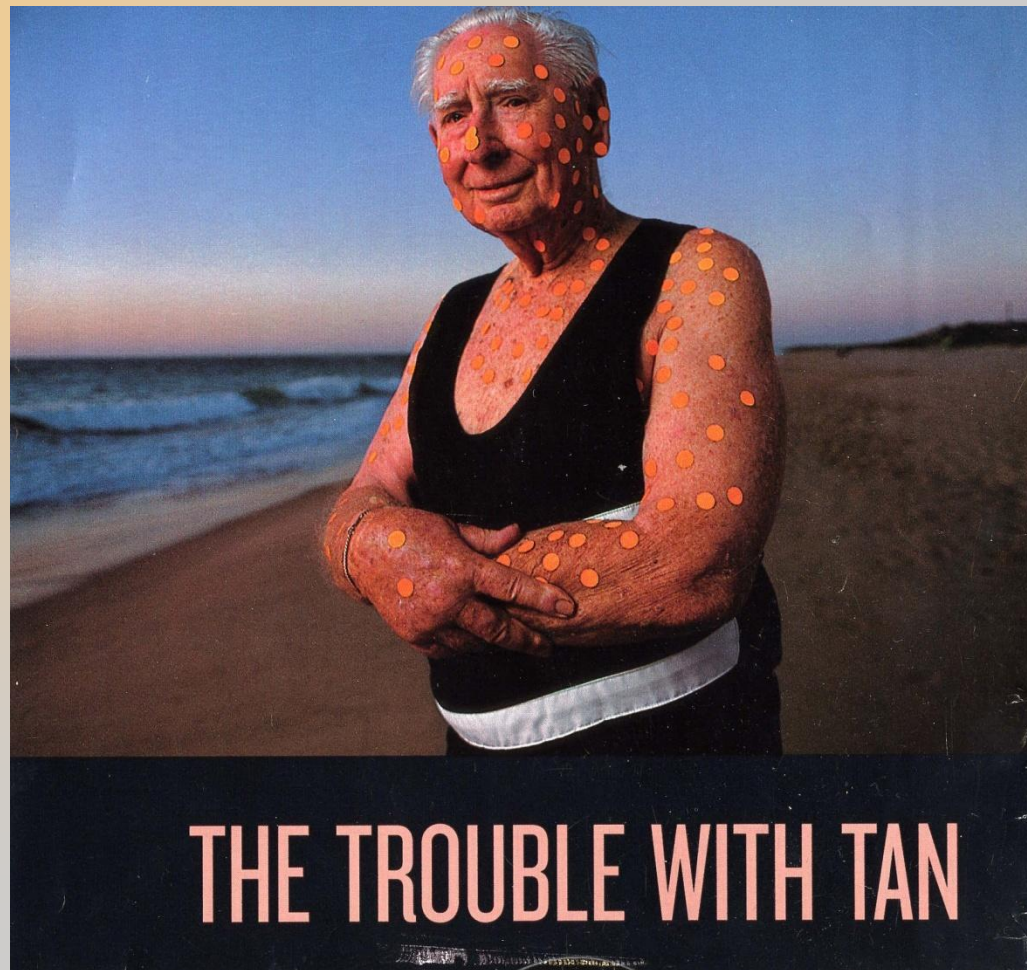




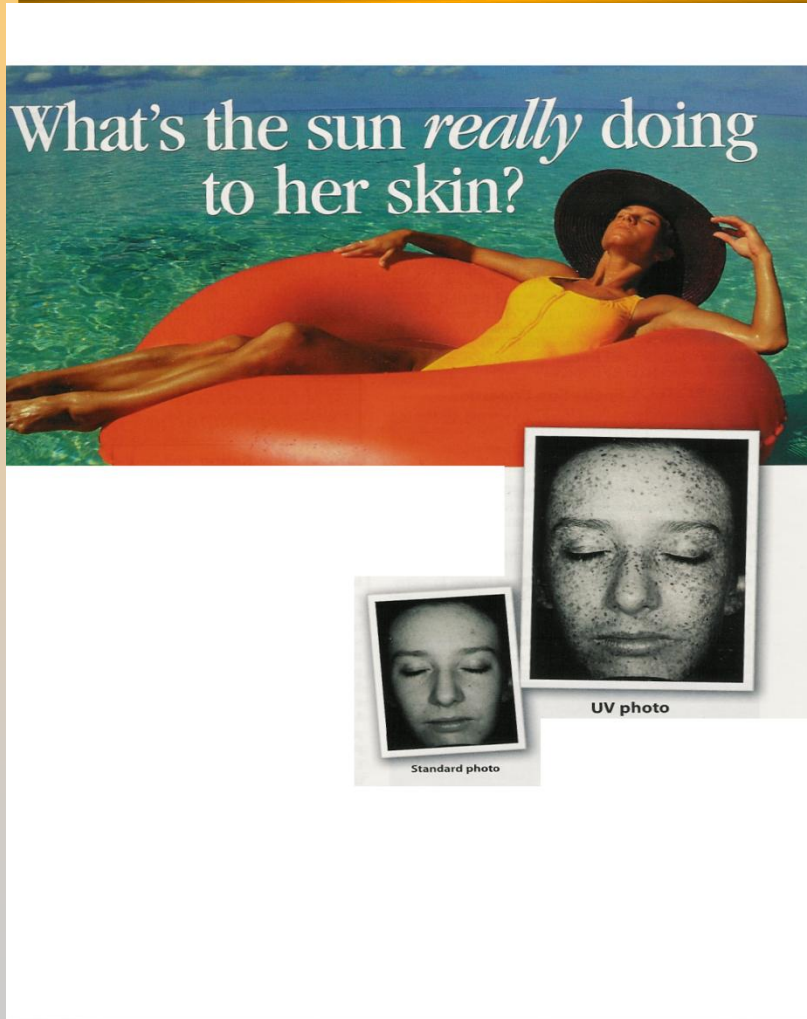
## *Any lifeguards out there?*

This is an 84 year old former lifeguard from Australia.

Each orange dot represents a removed skin cancer lesion. He has over 500 on his body!!



# How the Dermascan Works



- ★ The standard photo shows what your skin looks like on the surface
- ★ The UV photo looks deeper, showing the sun damage you can't see in the mirror
- ★ The spots in the UV photo show the extent of skin damage due to sun exposure



# *Severe Sun Damage Makes You at Higher Risk for Skin Cancer*

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This woman is only 64 years old. The Dermascan shows the damage to her skin from too much unprotected sun exposure.



# *Maryland Skin Cancer Prevention Program*



[www.sunguardman.org](http://www.sunguardman.org)

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