

The Case For Vitamin D

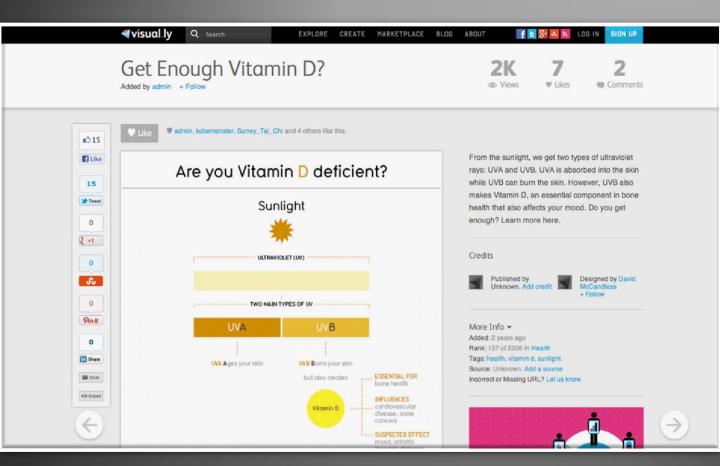
Misnomers About UV and the Positive Effects of the Sun



OHSU
Tweets
"Get
enough
Vitamin
D?"



OSHU Healthy Team Wants to Know If You Get Enough Vitamin D from UVB light?



OHSU says "UVB may burn your skin, but it creates Vitamin D, which is essential for bone health, and positively impacts cardiovascular disease and SOME CANCERS. It also improves mood, arthritis, and helps with TEENAGE DIABETES."

USA TODAY

Dr. Edward Giovannucci, a
Harvard University
professor at Dana-Farber
Cancer Institute at Harvard
Medical School, and one of
the world's leading
specialists on Vitamin D in
the human body:

"Vitamin D from UV might help prevent 30 deaths for each one caused by skin cancer."

"I would challenge anyone to find an area or nutrient or any factor that has such consistent anti-cancer benefits as **Vitamin D** - the data are really quite remarkable."

 Dr. Giovannucci, as keynote speaker at a recent American Association for Cancer Reseach seminar.

Infants who receive vitamin D supplementation (2000 units daily) have an 80% reduced risk of developing type 1 diabetes over the next twenty years.

Shocking Vitamin D deficiency statistics:

32% of doctors and med school students are Vitamin D deficient.

48% of young girls (9-11 years old) are Vitamin D deficient.

Up to 60% of all hospital patients are Vitamin D deficient.

76% of pregnant mothers are severely vitamin D deficient, causing widespread Vitamin D deficiencies in their unborn children, which predisposes them to type 1 diabetes, arthritis, multiple sclerosis and schizophrenia later in life.

81% of the children born to these mothers were deficient.

Diseases and conditions caused by vitamin D deficiency:

- -Osteoporosis
- -Sufficient vitamin D prevents **prostate cancer**, **breast** cancer, ovarian cancer, depression, colon cancer and schizophrenia.
- -"Rickets" is the name of a bone-wasting disease caused by vitamin D deficiency.
- -Vitamin D deficiency may exacerbate **type 2 diabetes** and impair insulin production in the pancreas.
- -Obesity impairs vitamin D utilization in the body, meaning obese people need twice as much vitamin D.
- -Vitamin D is used around the world to treat **Psoriasis**.
- -Vitamin D deficiency causes schizophrenia.
- -Seasonal Affective Disorder is caused by a melatonin imbalance initiated by lack of exposure to sunlight.
- Chronic vitamin D deficiency is often misdiagnosed as **fibromyalgia** because its symptoms are so similar: muscle weakness, aches and pains.

The risk of developing serious diseases like diabetes and cancer is reduced 50% - 80% through simple, sensible exposure to sunlight 2-3 times each week.

Vitamin D research may have doctors prescribing sunshine

"Many people aren't getting enough vitamin D. It's hard to get from food and fortified milk alone, and supplements are problematic."

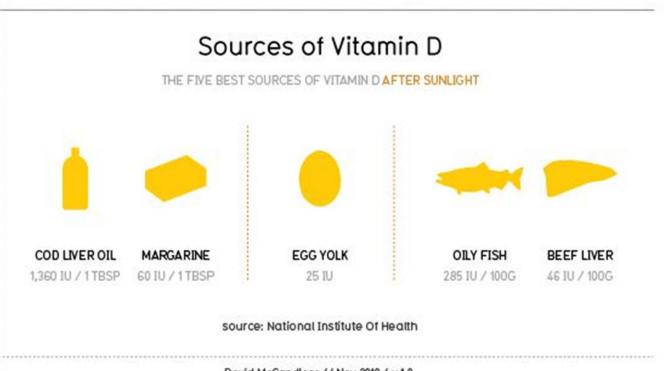
> USA TODAY Dr. James Leyden

Dr. Oz says in the following short video clip that "the BEST way to get your Vitamin D3 is from regular, moderate UV exposure," and that you CANNOT get enough unless you eat MASSIVE amounts of fish each day.

The Benefits of Vitamin D3

Diane Sawyer and Dr. Mehmet Oz on *Good Morning America*

Dr. Mehmet Oz says that humans need 1,000 to 2,000 IU per day of Vitamin D. Are you skipping UV? Better have a shot glass of Cod Liver Oil each morning then.



David McCandless // Nov 2010 / v 1.0 data: http://bit.ly/vitaminD addiitonal design: Joe Swainson, Matt Hancock, Stefanie Posavec

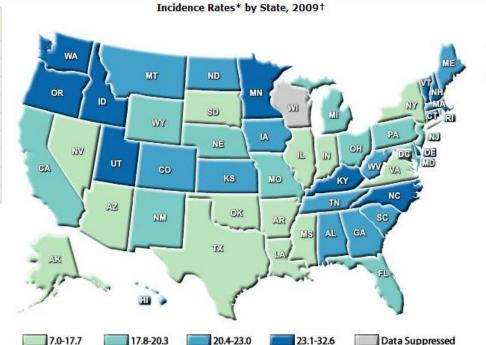
InformationIsBeautiful.net

You've heard that 'UV exposure causes cancer.' Perhaps it makes a good soundbite, but the FACTS say otherwise.

In reality, the facts say that regular UV exposure LOWERS the incidence rate of skin cancer, as the following CDC map demonstrates.

Uterine

dc.gov/cancer/skin/statistics/state.htm



Control

4770 Bufo

MS K-64

Atlanta, G 800-CDC-

(800-232-TTY: (888)

Contact C

Color on Map	Interval	States
	7.0 to 17.7	Alaska, Arizona, Arkansas, District of Columbia, Illinois, Indiana, Louisiana, Mississippi, Nevada, New York, Oklahoma, South Dakota, Texas, and Virginia
	17.8 to 20.3	California, Florida, Maryland, Michigan, Missouri, Nebraska, New Jersey, New Mexico, Ohio, Pennsylvania, Rhode Island, and Wyoming
	20.4 to 23.0	Alabama, Colorado, Georgia, Hawaii, Iowa, Kansas, Maine, Massachusetts, Montana, North Dakota, South Carolina, Tennessee, and West Virginia
	23.1 to 32.6	Connecticut, Delaware, Idaho, Kentucky, Minnesota, New Hampshire, North Carolina, Oregon, Utah, Vermont, and Washington
	Data Suppressed‡	Wisconsin

Please note that delays in reporting melanoma cases to cancer registries are more common since they are usually diagnosed and treated in non-hospital settings such as physician offices.

In fact, the Sunshine States (California, Hawaii, Arizona, Texas) have a much LOWER incidence of melanoma cases, per the CDC.

^{*}Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population.

Data are suppressed at the state's request.

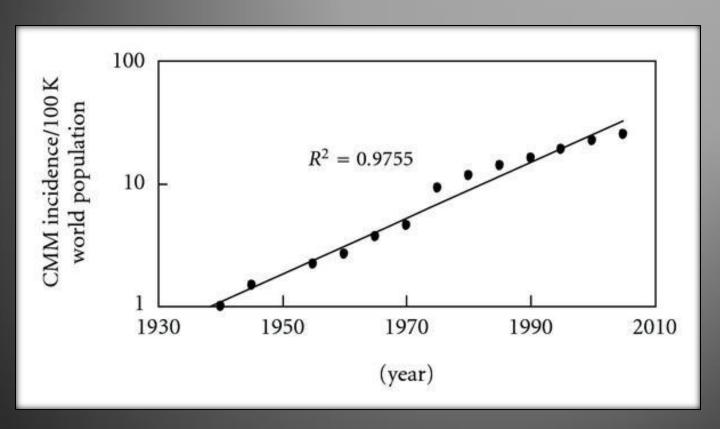
[†]Source: U.S. Cancer Statistics Working Group. <u>United States Cancer Statistics: 1999–2009 Incidence and Mortality Web-based Report.</u> Atlanta (GA): Department of Health and Human Services, Centers for Disease Control and Prevention, and National Cancer Institute; 2013. Available at: http://www.cdc.gov/uscs.

The following 40 second video explores the linear growth of four different types of cancer around the world since 1940. It seems clear that the increases are related to global conditions that have nothing to do with tanning beds.

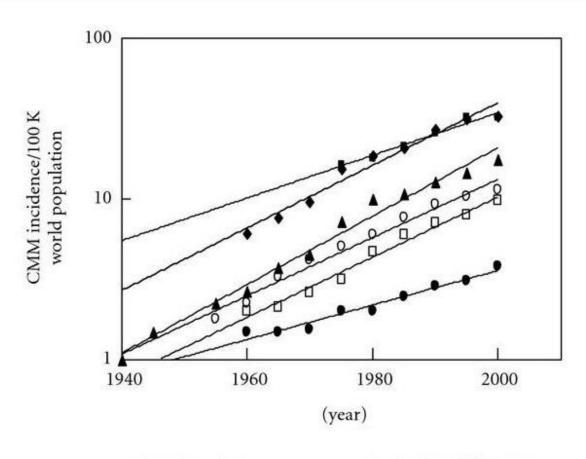
A global perspective – a brief look at growth in four types of cancer around the world from 1940-present



CMM incidence since 1940 world population



Notice that global
Melanoma rates have grown steadily since
approximately 1940 - long before tanning beds were
invented (note - the first commercial tanning salons
came into vogue in the 1980's).



- 30°S Australia
- ♦ 40°S New Zealand
- ▲ 40°N USA

- 49°N Middle Europe
- □ 52°N Canada
- 0 60°N Northern Europe

gure 1: Temporal exponential increase in the incidence of CMM by latitude worldwide. Note that on caland (40°S) and Northern Europe (60°N) have linear rates of increase.

Further, this chart demonstrates systematic increase in the incidence of CMM by latitude worldwide since 1940, and in many of these regions, there simply are no tanning salons.

Correlation is not Causation!



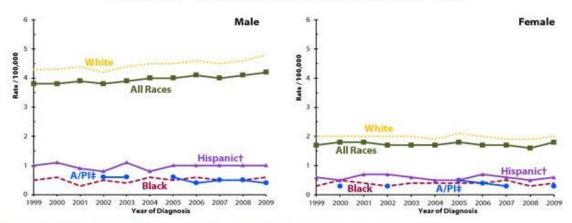
As the following CDC chart shows, since 1999, death rates of Caucasian men from melanoma are more than twice that of Caucasian women, regardless of what you have been told. If tanning beds are to blame, does this make LOGICAL sense to you?

CDC Death Rates from Melanoma by Race/Ethnicity and Gender

Death Rates by Race/Ethnicity and Sex

From 1999–2009, the rate of people dying from melanoma of the skin has varied, depending on their race and ethnicity. The graph below shows that in 2009, white people were more likely to die of melanoma of the skin than any other group, followed by Hispanic, black, and Asian/Pacific Islander people. American Indian/Alaska Native data are not available.

Melanoma of the Skin Death Rates* by Race/Ethnicity and Sex, U.S., 1999–2009



Mortality source: U.S. Mortality Files, National Center for Health Statistics, CDC.

^{*}Statistics are not shown for <16 deaths.











Page last reviewed: January 18, 2013 Page last updated: January 18, 2013

Content source: Division of Cancer Prevention and Control, National Center for Chronic Disease

Prevention and Health Promotion

Site Map

Policies

Using this Site

Link to Us

All Languages

CDC Mobile

Contact CDC

e Control and Prevention 1600 Clifton Rd. Atlanta, GA 30333, USA 0-232-4636) TTY: (888) 232-6348 - Contact CDC-INFO

USA.go

^{*}Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard population (19 age groups

⁻ Census P25-1130). Death rates cover 100% of the U.S. population.

[†]Hispanic origin is not mutually exclusive from race categories (white, black, Asian/Pacific Islander, American Indian/Alaska Native).

As the following CDC chart indicates, Melanoma rates among Caucasian females have not increased in the US since 2005, regardless of what you have been told.

CDC Skin Cancer Rates by Race, Ethnicity and Gender

cdc.gov/cancer/skin/statistics/race.htm Ceniers for Disease Confroi and Prevention CDC 24/7: Saving Lives. Protecting People.™ A-Z Index A B C D E F G H I] K L M N O P Q R S I U V W X Y Z # Skin Cancer **Skin Cancer** Email page Cancer Home > Skin Cancer > Statistics **Basic Information** Print page Recommend 295 Tweet 14 Share Statistics Get e-mail Rates by Race and Skin Cancer Rates by Race and Ethnicity C Listen to au Ethnicity Follow us o Rates by State The rate of people getting melanoma of the skin or dying from melanoma of the skin varies by race and ethnicity. Esta página en Trends **Behavior Rates** Incidence Rates by Race/Ethnicity and Sex Contact Us: "Incidence rate" means how many people out of a given number get the disease each year. The What CDC Is Doing graph below shows how many people out of 100,000 got melanoma of the skin each year during Centers fo Related Links the years 1999-2009. The year 2009 is the most recent year for which numbers have been Control an Prevention Choose Your Cover reported. The melanoma of the skin incidence rate is grouped by race and ethnicity. Division of Campaign Prevention The graph below shows that in 2009, white people had the highest rate of getting melanoma of

Rates by Race and Ethnicity for Other Types

people.

of Cancer

All Cancers Combined

Breast

Cervical

Colorectal (Colon)

HPV-Associated

Lung

Ovarian

Prostate

Uterine

Melanoma of the Skin
Incidence Rates* by Race/Ethnicity and Sex, U.S., 1999–2009

the skin, followed by American Indian/Alaska Native, Hispanic, Asian/Pacific Islander, and black

Control

4770 Bufor

MS K-64

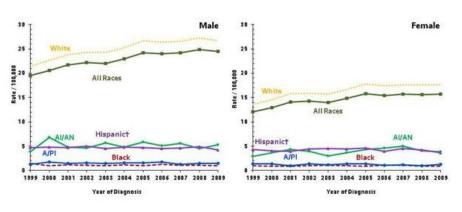
800-CDC

(800-232

TTY: (888

Contact C

Atlanta, G



Incidence source: Combined data from the National Program of Cancer Registries as submitted to CDC and from the Surveillance, Epidemiology and End Results program as submitted to the National Cancer Institute in November 2011.

Moreover, "Indoor workers get 3 to 9 times less UV than outdoor workers,



BUT

they get more melanomas."

So, How Much Sunlight Do You Need?

In Decent Exposure

HOW MUCH SUNLIGHT DO YOU NEED PER DAY TO MAKE VITAMIN D?

SUMMER



10 MINS





OUTSIDE!

UVB does not penetrate glass

SPRING / AUTUMN



20 MINS





FACE, ARMS, LEGS or BACK

No sunscreen (factor 15+ diminishes Vit D synthesis by 99%)

WINTER



30 MINS

MHO5



DARKER SKIN

Requires longer exposure

source: Australian Cancer Council, National Institute Of Health

Dr. Michael F. Holick, Chief of **Endocrinology and Nutrition and** Professor of Dermatology at Boston University, who made the landmark discovery on how Vitamin D works in the human body, explains in this next short clip how the new thinking encourages moderate UV exposure for young and old alike, to ensure both long-term health and a positive outlook on life.

Sunshine Sunbeds Vitamin D

with Dr. Michael F. Holick Chair of Endocrinology, and Professor of Dermatology Boston University In the world's most extensive study on the potential causal connections between UV and melanoma later in life, the World Health Organization found that of 100,000 women studied for eight years, .002 who did not tan at all developed melanoma, vs .003 of women who tanned frequently.

This is hardly damning evidence, especially given the positive effects of Vitamin D, and is not "75% greater risk of developing melanoma later in life if tanning when young," as you have been told.

The same 2009 World Health Organization study also concluded, "Epidemiologic studies to date give *no* consistent evidence that the use of indoor tanning facilities in general are associated with the development of melanoma or skin cancer."

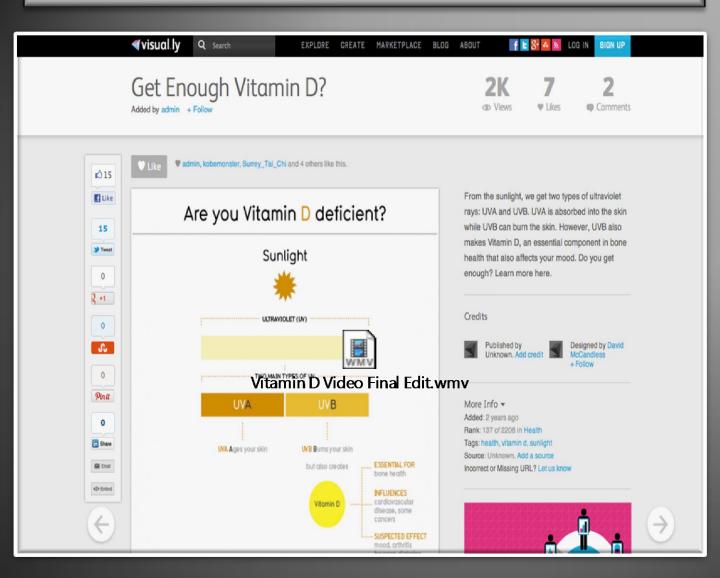
Again, correlation is not causation!

You've heard that "40-60% of all teenage girls use indoor tanning facilities", but that statistic is not based in reality.

You have heard tanning beds compared to "cigarettes", but in reality, they should be compared to red wine, microbrews, and smoked salmon.

Other comparisons are merely inflammatory rhetoric. Let's keep our focus on the FACTS surrounding this issue.

OSHU Healthy Team Wants to Know If You Get Enough Vitamin D?



REMEMBER – Even OHSU says "UVB may burn your skin, but it creates Vitamin D, which is essential for bone health, and positively impacts cardiovascular disease and SOME CANCERS. It also improves mood, arthritis, and helps with TEENAGE Diabetes." UV is not the enemy in moderate, controlled doses – so let's work together to ensure we can all get enough Vitamin D.