

March 18, 2019

Office of Science Quality
Centers for Disease Control and Prevention
InfoQuality@cdc.gov

This is a submission of an information quality request for correction.

Detailed description of the specific information that needs to be corrected.

The information that needs to be corrected is as follows:

1. The second sentence appearing on the page of the CDC's website titled "Policies and Practices for Cancer Prevention: Indoor Tanning Among Minors" (http://www.cdc.gov/cancer/dcpc/prevention/policies_practices/indoor_tanning/index.htm), as follows:

"Too much exposure to UV rays increases a person's risk of getting skin cancer, including melanoma...."

The second sentence of the third paragraph on the page of the CDC's website titled "Parents and Friends Can Influence Teens' Decisions About Starting Indoor Tanning" (<https://www.cdc.gov/cancer/dcpc/research/articles/indoor-tanning-initiation.htm>), as follows:

"Exposure to ultraviolet (UV) rays while indoor tanning can cause skin cancers including melanoma (the deadliest type of skin cancer)...."

The third sentence under the heading "How Tanning Can Cause Skin Cancer" on the page of the CDC's website titled "Parents and Friends Can Influence Teens' Decisions About Starting Indoor Tanning" (<https://www.cdc.gov/cancer/dcpc/research/articles/indoor-tanning-initiation.htm>), as follows:

"Most cases of melanoma are caused by too much exposure to UV rays, which come from both the sun and tanning beds."

2. The first sentence of the second paragraph on the page of the CDC's website titled "Indoor Tanning Among Adults in the United States" (<https://www.cdc.gov/cancer/dcpc/research/articles/adult-indoor-tanning.htm>), as follows:

"Indoor tanning is decreasing in the United States, possibly because more people know about its dangers: it increases the risk of skin cancer, including deadly melanoma."

3. The third sentence appearing on the page of the CDC's website titled "Policies and Practices for Cancer Prevention: Indoor Tanning Among Minors" (http://www.cdc.gov/cancer/dcpc/prevention/policies_practices/indoor_tanning/index.htm), as follows:

"Indoor tanning is especially risky for young people...."

4. The fifth sentence under the heading "How Tanning Can Cause Skin Cancer" on the page of the CDC's website titled "Parents and Friends Can Influence Teens' Decisions About Starting Indoor Tanning" (<https://www.cdc.gov/cancer/dcpc/research/articles/indoor-tanning-initiation.htm>), as follows:

"A tan is your body's response to injury, because skin cells signal that they have been hurt by UV rays by producing more pigment."

5. The first and second sentences under the heading "#Burning Truth" on the page of the CDC's website titled "The Burning Truth" (https://www.cdc.gov/cancer/skin/burningtruth/tanned_skin_not_healthy_skin.htm), as follows:

"Whether tanning or burning, you are exposing yourself to harmful UV rays that damage your skin. In fact, every time you tan, you increase your risk of melanoma."

The entire webpage titled "The Burning Truth."

The specific reasons for believing the information does not comply with OMB, HHS or CDC guidelines and is in error.

1. The information does not comply with OMB, HHS and CDC guidelines because it is misleading and could result in harm to the public health, and is in error because it is not in accord with the science.

The 3 statements quoted in 1 above are misleading because they imply that non-burning UV exposure can cause melanoma. The science shows that increased risk of UV-induced melanoma (all melanoma is not UV-induced) is correlated only with severe sunburns, not with non-burning UV exposure. Non-burning UV exposure, even in large amounts, is correlated with decreased risk of melanoma. The public needs to be informed that non-burning UV exposure, whether from the sun or from a tanning bed, is not associated with any increased risk of melanoma, but that severe UV burns (whether from the sun or a tanning bed) are associated with increased melanoma risk and the risk increases with the number of burns. The science on this subject is clearly stated in the following studies: Armstrong and Kricger 2001; Gandini et al. II 2005; Caini et al. 2009; and Vuong et al. 2013. Copies of these 4 studies are attached.

2. The information does not comply with OMB, HHS and CDC guidelines because it is misleading and could result in harm to the public health, and is in error because it is not in accord with the science.

The statement quoted in 2 above is misleading because it implies that all “indoor tanning” carries the same risk of melanoma, and fails to warn the public about the melanoma risk associated with burning. As used by the CDC, the phrase “indoor tanning” includes tanning in tanning salons, tanning in gyms, tanning in private homes, tanning in beauty shops and tanning in clubs and apartment buildings. As explained in 1 above, only severe UV burns are associated with increased melanoma risk, not non-burning UV exposure. UV burns do not occur in tanning salons that follow FDA-mandated recommended exposure schedules but do occur in other venues that do not follow FDA-mandated recommended exposure times. Numerous states have laws requiring tanning salons to have tanning equipment operated by trained operators (rather than by customers) and to follow FDA exposure schedules, but such laws often do not apply to use of tanning beds in other venues. Also, the statement “Indoor tanning is decreasing in the United States” is pure speculation; use of tanning salons is decreasing in the United States but there is no evidence that tanning in other venues is decreasing, and it may in fact be increasing.

3. The information does not comply with OMB, HHS and CDC guidelines because it is misleading and could result in harm to the public health, and is in error because it is not in accord with the science.

The statement quoted in 3 above has no scientific basis. The latest and most thorough study to date on the question of whether indoor tanning is especially risky for younger people is Colantonio et al. 2014, a copy of which is attached. As shown in Figure 7 of Colantonio et al. 2014, there is no statistically significant increased risk melanoma associated with indoor tanning before age 25 vs. after age 25.

4. The information does not comply with OMB, HHS and CDC guidelines because it is misleading and could result in harm to the public health, and is in error because it is not in accord with the science.

The statement quoted in 4 above is scientifically incorrect or misleading. A tan is the result of increased production of melanin in the skin and is the human body’s natural protective mechanism to resist UV burning.

5. The information does not comply with OMB, HHS and CDC guidelines because it is misleading and could result in harm to the public health, and is in error because it is not in accord with the science.

The statement in the first sentence equates burning and tanning. This is not in accord with the science that shows a correlation between severe UV burns and *increased* risk of melanoma, SCC and BCC, but a correlation between non-burning UV exposure and *decreased* risk of melanoma. While the science shows a correlation between a great deal of chronic lifetime cumulative sun exposure and increased risk of SCC, the only studies that quantify the amount of such sun exposure indicate that 20,000 to 50,000 hours of sun exposure is needed to trigger SCC. The number of hours of equivalent sun exposure obtained by even a prolific user of tanning salons is a tiny fraction of these amounts.

The statement in the second sentence is grossly incorrect. Increased risk of melanoma is correlated only with severe UV burns. Non-burning UV exposure is correlated with reduced risk of melanoma.

The entire webpage “The Burning Truth” is misleading to the public in that it states or implies that all indoor tanning should be avoided. Indoor tanning in commercial tanning salons with trained operators who follow FDA-mandated exposure labels on the tanning equipment will not inflict burns, but will provide a tan which the science shows provides protection against subsequent sunburns.

The specific recommendation for correcting the information

1. The statement “Too much exposure to UV rays increases a person’s risk of getting skin cancer, including melanoma, which can be deadly” should be changed to **“Great care should be taken to avoid UV burns when using indoor tanning. This can be done by having a trained operator operate the tanning bed to assure that the exposure schedule displayed on the tanning bed is followed or, if there is no trained operator, being extremely careful in self-operation to follow the exposure schedule and not to get a UV burn. Severe UV burns are associated with a doubled risk of melanoma.”**

The statement “Exposure to ultraviolet (UV) rays while indoor tanning can cause skin cancers including melanoma (the deadliest type of skin cancer). . . .” should be changed to **“Severe UV burns, whether from indoor tanning or the sun, are correlated with increased risk of skin cancers including melanoma (the deadliest type of skin cancer). . . .”**

The statement “Most cases of melanoma are caused by too much exposure to UV rays, which come from both the sun and tanning beds” should be changed to **“Increased risk of melanoma is associated with severe UV burns, which can come from both the sun and tanning beds.”**

2. The statement “Indoor tanning is decreasing in the United States, possibly because more people know about its dangers: it increases the risk of skin cancer, including deadly melanoma.” should be changed to **“While indoor tanning in commercial tanning salons is decreasing in the United States, indoor tanning at home or in other venues may be increasing. Great care should be taken to avoid UV burns when using indoor tanning.”**
3. The statement “Indoor tanning is especially risky for young people. . . .” should be changed to **“Severe UV burns at any age are a significant risk factor for melanoma.”**
4. The statement “A tan is your body’s response to injury, because skin cells signal that they have been hurt by UV rays by producing more pigment” should be changed to **“A tan is**

the result of increased production of melanin in the skin and is the human body's natural protective mechanism to resist UV."

5. The statements "Whether tanning or burning, you are exposing yourself to harmful UV rays that damage your skin." and "In fact, every time you tan, you increase your risk of melanoma." **should be deleted from the CDC's website.** The entire webpage titled "The Burning Truth" or any reference to it **should be deleted from the CDC's website.**

Description of how the person submitting this complaint is affected by the information error

The American Suntanning Association represents the owners of approximately 1,000 tanning salons in 31 states of the U.S. The information error harms the business of tanning salons by disseminating incorrect information about the use of tanning salons.

The name, mailing address, telephone number and e-mail address of the person making this complaint

The person making this complaint is the American Suntanning Association, which is a trade association of tanning salon owners in the United States. The mailing address, telephone number and e-mail address of the American Suntanning Association is:

American Suntanning Association
PO Box 1907
Jackson, MI 49204
Telephone 217-294-1857
E-mail address melindanorton@hotmail.com

Respectfully submitted,

American Suntanning Association

By: _____ /S/
Melinda Norton, President

Attachments:

Armstrong and Kricker 2001
Gandini et al. II 2005
Caini et al. 2009
Vuong et al. 2013
Colantonio et al. 2014