

Society of Behavioral Medicine (SBM) Supports the FDA's Proposed Sunlamp Restrictions

The Society of Behavioral Medicine strongly supports the FDA's proposed rule to restrict use of sunlamp products to individuals age 18 years and older and to require the provision of risk acknowledgement and information resources to sunlamp users. A large body of scientific evidence reveals that any use of sunlamps increases the risk of both melanoma and non-melanoma skin cancers (Boniol et al., 2012; Wehner et al., 2012). Research also demonstrates that skin cancer risk is further increased among individuals who use sunlamps at younger ages and report use over prolonged periods (Boniol et al., 2012; Wehner et al., 2012). Of tremendous public health concern is the steeper rise in melanoma incidence among young women, the most frequent users of sunlamps, compared to young men (Lazovich et al., 2016). Overall, it is estimated that approximately 10% of the nearly 80,000 melanoma cases diagnosed annually in the U.S. are directly attributable to sunlamp use (Wehner et al., 2014), almost all of which could be prevented by reducing this harmful exposure.

We underscore several reasons to restrict access to sunlamps among individuals under the age of 18 and for consideration of an increase in age of restriction to 21, similar to alcohol and under consideration for tobacco. Individuals aged 18-21 years are the most frequent users of sunlamps, followed by 16-17 year olds (Guy et al., 2013). A minimum age restriction can greatly reduce exposure to these harmful devices during this critical period of risk. Sunlamp use is often initiated in the high school or college years during "rites of passage" activities such as dances (e.g., prom, homecoming) and spring break vacations. If indoor tanning is prohibited during these ages, usage is likely to decline sharply as initiation is far less likely beyond the college years.

Health warnings alone are not likely to be effective because adolescents discount the risks of sunlamps as evidenced by continued use despite knowledge of the risks (Poorsattar & Hornung, 2007) as well as continued use despite experiencing acute skin injuries from sunlamp use (Stapleton et al., 2013). UV radiation from sunlamps has been shown to have physically and psychologically reinforcing properties, such that some individuals may develop addictive symptoms related to sunlamp use (Fell et al., 2014) leading to prolonged, heavy use in spite of negative consequences as is characteristic of addictive behavior (Stapleton et al., 2015a). Adolescents who start tanning at younger ages may be particularly vulnerable to these effects as they report more difficulty quitting use of sunlamps (Zeller et al., 2006).

Less restrictive measures, such as parental consent requirements, are insufficient because of documented poor compliance with such restrictions by tanning salons (Forster et al., 2006) and may not lead to reductions in adolescent sunlamp use in states that have adopted such laws (Mayer et al., 2011). Better compliance has been achieved with age restrictions (Grewal et al., 2013). The prevalence of indoor tanning among high school students is significantly lower in states that include age restrictions than in those that do not (Guy et al., 2014). The proposed rule is poised to greatly reduce the prevalence of indoor tanning nationally by restricting sunlamp use to individuals age 18 and older. It would likely have even more potent public health implications with a minimum age of 21.

One potential implication of prohibiting minors from using tanning salons is an increase in the use of tanning beds in private homes. Recent research showed that 13% of indoor tanners have ever tanned in a private home (Hillhouse et al., 2015). No restrictions are currently in place (or being proposed) for purchasing tanning beds or on home use. Homeowners may allow anyone to use their devices for any length of time, completely unrestricted. Research will be needed to document whether indoor tanning emerges in the home setting or in businesses that offer indoor

tanning free as a part of a subscription for other services (e.g., gyms, apartments, etc.) and it is not clear if such businesses would be covered by the proposed rule. The FDA and state agencies should ensure that the proposed rule would apply across such settings.

SBM also supports the FDA's provision of risk acknowledgement and information resources to sunlamp users to ensure consumers are adequately informed about the potential risks associated with these products. In response to the FDA's request for comments on the risks to health that should be included in the risk acknowledgement certification and other consumer-facing risk communications, we provide some recommendations:

1. It is important that users be informed that no tan is a "safe" tan. The skin tanning response occurs following UV-induced skin damage that may lead to skin cancer (Garibyan & Fisher, 2010).
2. Research has shown that sunlamp users who are provided written information about the appearance-damaging effects of UV exposure (photoaging, wrinkling, etc.) may be more likely to reduce their sunlamp use (Hillhouse et al., 2008). Risk acknowledgment information should provide users with an understanding of appearance-based risks, in addition to health concerns such as skin cancer.
3. Research also indicates that communication messages incorporating visual content (e.g., imagery) depicting the risks associated with sunlamp use may be more effective than text-based information for informing consumers about potential risks (Mays & Tercyak, 2015; Mays & Zhao, 2016; McWhirter & Hoffman-Goetz, 2015). FDA should consider using such communication strategies in consumer-facing communications such as the risk acknowledgement, device warning labels, and other communications for consumers.
4. UV radiation emitted from sunlamps may have addictive properties (Fell et al., 2014). As a result, some sunlamp users may experience urges to use sunlamps that are difficult to resist (Stapleton et al., 2015b). FDA should consider informing consumers that some individuals may be susceptible to the potentially addictive properties of sunlamp use.

In sum, SBM supports the FDA proposed rule and urges a consideration of: (1) increasing the minimum age to 21 years; (2) applying the proposed rule across the diverse settings where sunlamp products are used; and (3) ensuring health communication messages reflect the relevant evidence base.

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