Health Information National Trends Survey

hints briefs

NUMBER 58

Prevalence and Predictors of Sunburn Among U.S. Adults

Skin cancer is the most commonly diagnosed cancer in the United States (U.S.). Nonmelanoma skin cancers (including basal and squamous cell carcinomas) are the most common types of skin cancer, and although rarely lethal, they can have a negative impact on quality of life. Comparatively, melanoma accounts for only a small proportion of skin cancer cases but is responsible for most skin cancer-related deaths. Although some people are at higher risk for skin cancer (e.g., those with fair skin), anyone can be affected.

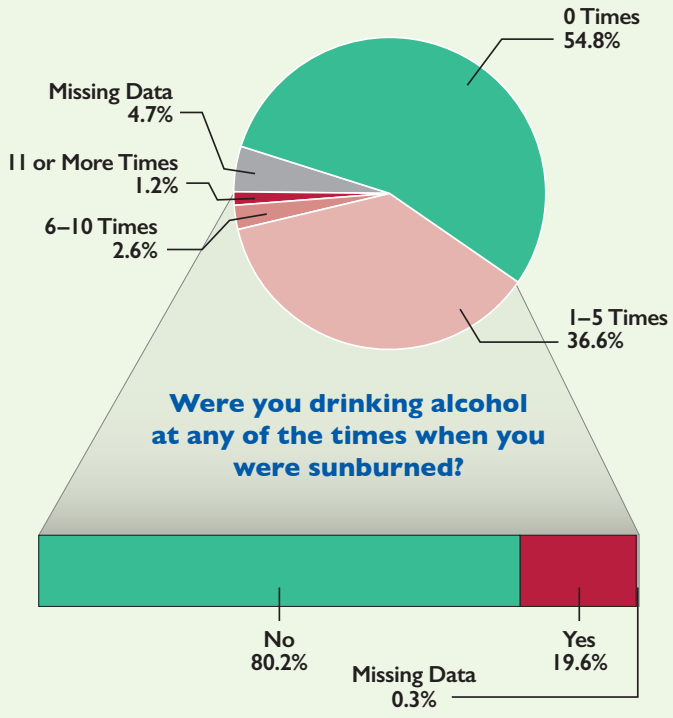
Exposure to ultraviolet (UV) radiation (from either natural sunlight or indoor tanning devices) is a significant risk factor for skin cancer, and reducing exposure to UV radiation (e.g., by wearing protective clothing, seeking shade, using sunscreen, and avoiding indoor tanning) can help prevent the development of skin cancer. Sunburn is an indicator of overexposure to UV radiation, and sunburns at any age are associated with increased risk for skin cancer (particularly when frequent), such that history of sunburn is commonly used as a proxy measure for skin cancer risk.

Each year, approximately one-third of U.S. adults report experiencing at least one sunburn, with prevalence being even higher among certain groups, such as young adults. Differences in sun protection behaviors may explain some of these disparities (e.g., research suggests young adults may be less likely to wear protective clothing compared to older adults). Additionally, certain behaviors such as physical activity and alcohol consumption are associated with an increased likelihood of reporting at least one sunburn in the past year. It may be that alcohol and sun risk behaviors cluster together, that the disinhibitory effects of alcohol facilitate excessive sun exposure, or that some environments in which alcohol consumption occurs—such as outdoor concerts and vacations—also involve increased sun exposure. This suggests a need for behavioral interventions and communication efforts tailored for specific demographic groups and behavioral contexts to reduce sunburn and skin cancer risk.

Quick Facts

- Skin cancer is the most common type of cancer in the United States.
- Sunburns are associated with increased skin cancer risk.
- Reducing exposure to UV radiation (e.g., by wearing protective clothing, seeking shade, using sunscreen) can help prevent sunburn and reduce the risk of skin cancer.
- In 2024, approximately 40% of U.S. adults reported experiencing sunburn in the previous 12 months, and nearly 1 in 5 of these individuals reported drinking alcohol during at least one of the times they got sunburned.

During the past 12 months, how many times have you had a sunburn from too much sun exposure? (2024)



Source: HINTS 7 (2024)

This HINTS® *Brief* examines the prevalence and predictors of sunburn among U.S. adults.

Factors Associated with Sunburn Among U.S. Adults

A recent analysis of HINTS 6 (2022) data found that, overall, nearly one-third of U.S. adults (32.6%) reported experiencing at least one sunburn in the past 12 months and, of those individuals, 21.8% reported consuming alcohol when they were sunburned. Multivariable logistic regression models showed that compared to non-Hispanic White individuals, people of all other races and ethnicities were less likely to report getting sunburned. Women and older individuals were also less likely to report sunburns. Conversely, gay or lesbian individuals, those with higher levels of educational attainment, and those with higher household incomes were more likely to report getting sunburned. Additionally, gay or lesbian individuals were more likely to report consuming alcohol when they were sunburned, whereas older adults, those with higher levels of education, and those with higher incomes were less likely to report consuming alcohol when they were sunburned.

How Can This Inform Your Work?

HINTS data suggest that many U.S. adults are experiencing sunburns, which may increase their skin cancer risk. Clinicians can play an important role in skin cancer prevention by encouraging behaviors that reduce UV exposure (e.g., seeking shade, wearing sun-protective clothing, using a broad-spectrum sunscreen). However, research suggests that many physicians face barriers to counseling, such as lack of time. Engaging other members of the care team in counseling efforts, integrating automated reminders into electronic health record systems, and providing accessible patient education materials could help support consistent counseling practices while reducing physician burden. Efforts to supplement behavioral counseling during clinical encounters may also be needed. Disseminating sun protection information in nonclinical settings, such as pharmacies, beauty salons, tattoo parlors, and recreational facilities, could help increase the reach of sun safety messages. Technology-delivered interventions (e.g., mobile apps providing personalized, real-time advice) have also demonstrated effectiveness in improving sun protection outcomes and may complement clinical counseling and community-based educational efforts.

Although all populations may benefit from sun safety education, HINTS data highlight several priority groups for skin cancer communication efforts, including young adults, men, sexual minority populations, and individuals with higher socioeconomic status. For example, men have higher rates of sunburn and may be less likely to engage in certain sun-protective behaviors, such as wearing sunscreen, than women, potentially reflecting differences in social norms or messaging. Interventions specifically designed for men that address perceived norms may help increase sun protective behaviors in this population. Young adults are another important group for sun safety interventions. Interventions could leverage social media platforms popular with this population and incorporate appearance-focused messages emphasizing the skin-aging effects of UV radiation, which have been shown to be effective among younger individuals.

Finally, the substantial number of adults who reported consuming alcohol when they were sunburned suggests that combined efforts to address both alcohol use and skin cancer prevention could be beneficial. Counseling and communication efforts addressing these behaviors concurrently could be especially important for certain populations, such as young adults and sexual minority individuals, who report higher rates of both sunburn and alcohol consumption at the time of sunburn.

About HINTS

hints.cancer.gov

The National Cancer Institute (NCI) created the Health Information National Trends Survey® (HINTS) to monitor changes in the rapidly evolving field of health communication. The survey data can be used to understand how adults use communication channels to obtain health information for themselves and their loved ones. HINTS data can also help practitioners create more effective health communication strategies. The HINTS survey has been fielded 17 times to date.

HINTS *Briefs* provide a snapshot of noteworthy, data-driven research findings that may be of interest to the HINTS community. The *Briefs* summarize research findings from recently published peer-reviewed journal articles analyzing HINTS data.

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