Can Sleep Prevent Cancer? The American Cancer Society And Sleep Number Are Finding Out

American Cancer Society BRANDVOICE | Paid Program

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By Natalie Burg

Since 1946, the American Cancer Society (ACS) has invested more than $5 billion in cancer research. The nonprofit's impact has been nothing short of extraordinary: Through an array of prevention studies and research programs, ACS has been a part of almost every major cancer breakthrough —including helping to halve the childhood cancer death rate since 1970 and lower the total cancer death rate by 33% since its peak in 1991.

What's next on their priority list? Studying sleep's impact on cancer prevention and survivorship. With the support of tech-driven mattress company Sleep Number, ACS will use existing data from its longitudinal cohort studies involving hundreds of thousands of participants across the U.S.—and potentially leverage Sleep Number's proprietary sleep data gathered by smart beds—to research and understand how quality sleep affects cancer prevention and recovery.

The end goal? To hopefully develop the first-ever evidence-based sleep guidelines to preventatively lower cancer risk and improve sleep for patients and survivors.

"There's a lot of talk about sleep and … why this would be important for cancer patients, not only for quality of life but potentially even in detection and outcomes," says Dr. William Dahut, ACS' chief scientific officer. "[This is] a significant [opportunity] to get evidence-based information to make recommendations—beyond simply 'everybody should get enough sleep.'"

How They're Uncovering The Sleep And Cancer Connection

The connection between cancer and sleep is understudied. "We understand the impacts of diet, exercise, tobacco use [and] alcohol on cancer risk and outcomes," says Rajasi Mills, Sleep Number's vice president of health and research. "Sleep is one of the last frontiers that is yet to [be] explored."

As a practicing medical oncologist, Dahut has frequently heard about cancer patients' sleep challenges. Whether it's a combination of medications or side effects from treatments, Dahut says patients often deal with pain and anxiety that can result in a poor night's sleep. "The next day, folks are worn out, and the things we know are important for cancer care—nutrition, diet and exercise—[are impacted]," Dahut says.

It's not a stretch to imagine how poor sleep might affect quality of life and health outcomes for patients and survivors, as well as how it might increase healthy individuals' cancer risk. But when Shelly Ibach, Sleep Number's chair, president and CEO (who is also the chair of the Minnesota chapter of CEOs Against Cancer), learned about the research challenges around establishing the links between cancer and sleep, she saw an opportunity to leverage Sleep Number's highly accurate and efficient smart bed technology that collects longitudinal sleep data.

"We provide authentic 'in the wild' data that is measured while someone sleeps in the comfort of their own home," Mills says. Many of the cohort participants likely already own Sleep Number smart beds, which have sensors that measure sleep and biometric data like respiratory patterns, heart rate, sleep duration and circadian health—data that can be evaluated over time, before diagnosis, during treatment and during recovery to uncover outcomes, Mills adds. ACS is exploring how Sleep Number's valuable sleep data will complement the rich data from its own cohort to maximize the potential of these research studies.

Working with Sleep Number's innovative technology will unlock new research capabilities for ACS, says Dahut. Pairing the data from the ACS cohort with what he calls "real-world evidence" from smart bed data, he

says, "[will] improve the recommendations that we might make on our own."

With Sleep Number's 2 million smart sleepers, Mills says the company has gathered over 19 billion hours of anonymized sleep data they can use to study population-level sleep patterns. That level of insight only enhances the research, she adds, catalyzing the partners' goal of improving sleep quality and long-term health.

How They're Already Making A Difference

ACS and Sleep Number are already helping cancer patients get better sleep. In 2021, Sleep Number began providing its smart beds to ACS Hope Lodges; the 30-plus Hope Lodge communities across the country provide patients and caregivers free lodging during treatment.

"Sleep is vital to recovery, whether that's physical for a cancer patient or mental and emotional for a caregiver," says Mills. "Hope Lodges provide respite and support for families in treatment, and we're honored to be a part of the journey—helping them sleep better away from home."

Sleep Number has also worked with ACS on fundraising and other prevention activities beyond sleep-related efforts, including encouraging pro football fans to use a digital cancer risk assessment tool during a major championship game.

Dahut hopes their groundbreaking study begins to uncover some impactful data soon. Already, ACS estimates that 45% of U.S. cancer deaths are potentially modifiable when people follow existing lifestyle guidelines for factors like smoking, diet and exercise.

ACS and Sleep Number are optimistic that their sleep-focused study—and their guidelines—will chart a clearer path for patients and survivors and become a tool to prevent disease.

"Hopefully, this will give us information that we could [use to] actually inform subjects, patients, caregivers [and] family members [on] what they could do in order to actually change their cancer risk," says Dahut. "Because, ultimately, that's what this is all about."

American Cancer Society

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