

# Health and the Environment

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## Environment (noun) (dictionary.com)

1. The surroundings or conditions in which a person, animal, or plant lives or operates.
2. The natural world as a whole or in a particular geographical area, especially as affected by human activity.<sup>1</sup>

Both the immediate surroundings in which we live and the natural world as a whole can have profound effects on health. From the way an office is set up, to the color of the walls in a hospital room, to how many grocery stores or parks are in a neighborhood, to the impact of global warming on clean water supplies, the world around us can impact several aspects of health.

A positive work environment, with low stress levels, may improve performance and decrease burnout. A well-positioned keyboard and chair may decrease incidence of carpal tunnel syndrome. A neighborhood with parks and other green spaces may encourage residents to walk and bike more and experience less environmental toxins. Abundance of grocery stores may provide healthy food for residents, stimulating more intake of fruits and vegetables.

On the flip side, increased pollution may cause worsening of asthma and symptoms of chronic obstructive pulmonary disease. Lead paint on the walls can lead to learning issues and negatively affect brain development in children. Lack of access to healthy food may correlate with more fast food eaten and lower fresh produce intake, leading to higher rates of obesity, diabetes, and heart disease. Lack of clean water from weather changes can lead to higher rates of communicable diseases.

Two papers in this issue explore health effects of the environment. The paper by Quinn-

Lee, et al,<sup>2</sup> discusses an intervention bringing a personalized music program to a caregiver of someone with dementia. Over 115,000 people live with dementia in Wisconsin, and this number is growing as the population ages.<sup>3</sup> Many people with dementia live at home with a caregiver for many years. Living at home is ideal because the familiar environment can be soothing for people as their memory declines. However, many caregivers are not able to keep their family members at home due to the increasing complexity of care, which necessitates admission to a long-term care facility. When that occurs, music therapy has been shown to improve both psychiatric and behavioral symptoms in people with dementia.<sup>4-6</sup> Music connects to parts of the brain that are preserved from the changes seen in dementia. There is an imperative to explore nonpharmacologic treatments for dementia because medications have limited effectiveness and sometimes troubling side effects.

Quinn-Lee's study takes the use of music therapy one step further and not only examines the patient, but also explores how music affects the caregiver. They found that a personalized music intervention (based on the previously used Music and Memory program) decreased the caregiver's stress and helped them feel more supported. Both of these findings are important as efforts to prevent caregiver burnout and potentially delay the transi-

tion from home to a long-term care facility.

A second paper in this issue by Temte, et al,<sup>7</sup> explores patient attitudes toward climate change and correlates attitudes with mood changes. The researchers surveyed almost 600 primary care patients and asked about their attitudes towards climate change and administered validated measures of mood. Twenty-two percent of the patients had dysphoria, and it was closely correlated to worrying about climate change and the future of the environment.

Both of these studies underscore the myriad influences that can impact our patients' health and lives, including our environment. We need to be attentive to those influences and how they affect each person differently.

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