## Head Out for a Daily Dose of Green Space

First, the bad news: Americans are suffering from an acute case of "outdoor deprivation disorder," and the effects on physical and mental health are rising fast. Children aged 8 to 18 today spend more time than ever using electronic media indoors — seven and a half hours a day, according to the Kaiser Family Foundation — and less time in outdoor unstructured activity. In response to the No Child Left Behind law, 30 percent of kindergarten classrooms have eliminated recess to make more room for academics.

The resulting lack of physical activity and a growing disconnect with the natural environment have been linked in a host of studies to obesity and obesity-related diseases in children and adults, including Type 2 diabetes, high blood pressure, heart disease, asthma and nonalcoholic fatty liver disease, as well as vitamin D deficiency, osteoporosis, stress, depression, attention deficit disorder and myopia. Dr. Daphne Miller, a family physician affiliated with the University of California, San Francisco, calls them "diseases of indoor living."

Now, the good news: There's a simple remedy — get outside and start moving around in green spaces near and far, most of which are free. A consortium of physicians, health insurers, naturalists and government agencies have banded together to help more people of all ages and economic strata engage in health-enhancing physical activity in parks and other natural environments.

This grass-roots movement has already reached the White House. This year President Obama started the America's Great Outdoors Initiative, proclaiming June "Great Outdoors Month." The initiative aims not just to counter sedentary lifestyles but also to reacquaint Americans with the farms, ranches, rivers, forests, national and local parks, fishing holes and beaches that provide opportunities for people "to stay active and healthy."

The goals dovetail with Michelle Obama's battle against childhood obesity and her initiative Let's Move Outside, a program that's part of her Let's Move campaign. Dr. Miller said that the aim was to "turn our public lands into public health resources. Doctors around the country are beginning to realize that getting patients out of doors has benefits even beyond getting people to exercise.

"It's a lot cheaper to go outside and move than it is to build gyms and a lot of

hospitals," she said.

## **Doctor's Orders: Be Active**

Accordingly, Dr. Miller and a growing number of like-minded doctors have begun writing specific prescriptions for outdoor activity, providing patients with maps, guidelines and programs of gradually increased activity based on their abilities. She said that such prescriptions are necessary because many people "are unfamiliar with the outdoors — they're scared to walk through a park, and they don't know what to do when they get there."

Among possible sources of help: volunteer health guides in parks who can tell people where to go and what to do and park rangers who are trained to advise people who may have health issues. "Our parks provide a huge opportunity," Dr. Miller said. "Currently, fewer than 40 percent of visitors use them for any form of exercise."

Some health insurers have come on board as well. SeeChange Health in California and the Blue Cross and Blue Shield Foundation in North Carolina are supporting outdoor programs in their areas, like the Kids in Parks Initiative of the Blue Ridge Parkway Foundation. SeeChange Health this year announced a pilot project to reimburse members for visits to California state parks.

Other movers and shakers include the National Wildlife Federation, which established the "Be Out There" public-education campaign to foster a daily "green hour" during which every child could enjoy 60 minutes of unstructured play and interaction with the natural world. On its Web site, www.nwf.org, the federation has posted the rationale and specific suggestions for schools and families to counter the physical, emotional and educational drain of an "indoor childhood."

The campaign's mission "is to return to the nation's children what they don't even know they've lost: their connection to the natural world," with activities suitable for all children, whether rural, suburban or urban.

As for its health and educational benefits, the federation cites scientific findings that outdoor play enhances fitness, raises blood levels of vitamin D (which in turn protects against bone loss, heart disease, diabetes and other health problems), improves distance vision, lowers the risk of nearsightedness, reduces symptoms of stress and attention deficit hyperactivity disorder, raises scores on standardized tests and

improves students' critical-thinking skills.

The National Environmental Education Foundation is now training pediatric health care providers to serve as nature champions in their communities.

One study of children living in poor urban environments found that those who relocated to greener (though not more affluent) home surroundings "tended to have the highest levels of cognitive functioning following the move." The author of the study, Nancy M. Wells, also found in research among rural children that nearby nature can act as a buffer against stressful life events and improve children's psychological well-being.

Lest you remain unconvinced, I urge you to read the best-selling book "The Last Child in the Woods," by Richard Louv, who coined the phrase "nature-deficit disorder." Mr. Louv describes dozens of studies demonstrating the benefits that wilderness outings can have on mental and physical health.

## 'Park Prescriptions'

The National Park Service, too, has joined the "park prescriptions" campaign, offering free wellness services that are accessible to all, regardless of health status. (I was shocked to learn on a recent visit to Grand Canyon National Park that, despite many well-maintained trails, only 5 percent of visitors ever venture below the rim of the canyon; about half the people I encountered on the trails were from other countries.)

The park service helped Dr. Eleanor Kennedy, a cardiologist in Little Rock, Ark., create a downtown "Medical Mile," a section of the Arkansas River Trail, and now hopes to support access to similar open spaces in communities nationwide. Dr. Kennedy reports that once she gets her patients outdoors "they are more likely to be consistent about exercise." The Medical Mile project, which had an initial goal of \$350,000, managed to raise \$2.1 million in two years.

Dr. Robert Lambert, a cardiologist at the Heart Clinic of Arkansas, said: "We see too many patients who need our assistance because of their lifestyle, not because of factors beyond their control. That is why my colleagues and I decided to become involved."

Other programs include Prescription Trails, established in Santa Fe, N.M., with the help of the Centers for Disease Control and Prevention, to counter runaway rates of diabetes in the community. Local physicians get trail guides to distribute to their

patients. The Web site www.prescriptiontrailsnm.org is a guide to some of the state's best park and trail walking and wheelchair rolling paths.

This is the second of two columns on health-promoting physical activity.