

HARMONY THROUGH MIND, BODY, SPIRIT

BALANCE

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EXPERIENCING 'FEEL-GOOD' EFFECT OF NEGATIVE AIR IONS

MOOD ELEVATORS



Negative air ions can be experienced in the rushing surf. (Press file photo) Cover photo: (Mike McLaughlin/Special to the Press)

BY BOBBI SEIDEL * STAFF WRITER

Mary Guido strides along the Seaside Park boardwalk on a recent sunny morning.

Guido, 54, of Toms River, regularly walks along the oceanfront wooden boards. But exercise isn't the only reason the thin, blond woman feels good when walking.

"Physically and mentally, I know being by the ocean affects me. It's great," says Guido, explaining that's why she chooses to walk near the water.

Jennifer Davis, 19, of Ocean Township, also feels good when near the ocean.

The petite, dark-haired Davis, reading a book on a beachfront bench in Ocean Grove, says being near the ocean is "calming and comforting."

That feel-good effect comes from more than the sight of sand and sea or the smell of salt air. The invisible ingredient is negative air ions: electrically charged molecules.

"The idea that negative ions were mood lifters has been out there for 35 years or more in pop literature. But it was never tested in a controlled trial," says Michael Terman, a psychology professor at Columbia University who has been studying the relationship between negative ions and depression for 10 years. "To be frank, we thought it was spurious. And that's the joke because we found that negative ions are a powerful anti-depressant."

The study of ions is "at the interface of physics and psychiatry," says Terman, director of the Winter Depression Program at New York State Psychiatric Institute, a division of Columbia Presbyterian Medical Center.

Negative ions exist everywhere, he says.

"Anywhere in the world, there's always a measureable level of negative ions," says Terman, 59. "It's an atmospheric parameter. Millions and millions of electrons per second attach to atoms and molecules; these

are the negative ions."

Negative ions help decrease unhealthy particles in the air, says Pierce J. Howard, 62, director of research at the Center for Applied Cognitive Studies in Charlotte, N.C.

"The particles can be dust mites, bacteria, anything. In order for the air to be breathable, we need to get these particles out of the air. The negative ions serve as an escort. They latch onto a particulate, making it heavier, and it falls to earth," says Howard, author of "The Owner's Manual for the Brain."

"When we breathe a lungful of air, the more junk we breathe, the less oxygen to go to the brain," Howard says. "That's why we feel groggy or less alert."

"Negative ions play a significant role in alertness."

The creation of ions occurs "spontaneously in the natural environment," Terman says. "A variety of physical events and processes pour free electrons into the atmosphere. These are negative charges. They attach to molecules.

"You find this out of doors after a springtime thunderstorm, at the seaside due to the physical pounding of the surf, at waterfalls. That may be a reason why people are attracted to the pounding surf," Terman says.

Ponds or lakes "have a secondary effect," Howard says. "It's more dramatic around moving water."

"While just being near the ocean might be enjoyable for many people, two or three of you (out of a group) would feel good because of the heightened ion exposure" created by the surf, Terman says.

Guido has recognized this feel-good effect for years.

"I just feel relaxed when I'm here by the water. I become a nice person again," Guido says.

"Being around the water is relaxing," says Rob Jorgensen, 32, of Seaside Park, who teaches social studies in Monmouth Beach.

The ocean atmosphere can cut stress for many, especially people who deal with the hectic pace of working in cities, says the muscular, dark-haired Jorgensen, who has worked for the past 10 summers as a beach attendant in Seaside Park.

Yet Guido, Jorgensen and Davis could not tell if ions are present. None of us can, Terman says.

While "sophisticated equipment" can detect ions, "we humans are not equipped to detect their presence," says Terman. "We can't see them, we can't smell them, we can't hear them. You can be sitting in a highly ionized environment or one with a very poor level, and you wouldn't know the difference."

Poorly ionized sites include homes or offices where heating or air conditioning reduce the negative ions in the air, Howard says.

Our reactions, though, may tell us the ion level is low, Terman and Howard say.

"About one in three persons" is negatively affected by ion depletion, Howard says.

"The speculation in terms of mood and energy is that low levels of ions" may cause bad moods and depression, Terman says.

"One of the mysteries is how your exposure to an ionized atmosphere impacts the nervous system and makes you feel differently," Terman says. "We don't have the answer yet. There may be reactions at the level of skin exposure. We don't know for sure where the receptor is."

Terman has conducted two clinical trials of "the anti-depressant effect of negative ion exposure."

In one study, half the participants, upon awakening, used a device that exposed them to a high level of negative air ions; the others were exposed to a very low level.

Symptoms of depression were alleviated in those exposed to the high level, Terman says, calling it "a statistically significant clinical effect."

In a second study, exposure was done while participants slept. About half the people receiving a high level of exposure "had a complete remission of depressive symptoms within three weeks of treatment," he says.

Davis, a sophomore at Rutgers University who visits the oceanfront year-round, walking her dog there in winter, says the research may be correct.

"I feel more relaxed, calmer near the ocean. I feel happier around the ocean. My friends feel the same way," she says. "A lot of people do."

NEGATIVE ATMOSPHERE

Creating an atmosphere containing more negative air ions can be done, health experts say.

"Take an inventory of your home or office," says Pierce J. Howard, Ph.D., director of research at the Center for Applied Cognitive Studies in Charlotte, N.C.

"Eliminate activities that cloud the air with particulates, such as smoking, candles or frying (foods)," Howard says.

Opening windows or using a negative ion generator help too, he says.

Michael Terman, Ph.D., of New York, a researcher into the relationship between negative ions and mood, says the Center for Environmental Therapeutics, a nonprofit educational and research agency, has an online site - www.cet.org - that has information about commercial ion generators and about negative ions.

- *Bobbi Seidel*