

Benefits of Negative Ions

"Negative ions increase the flow of oxygen to the brain; resulting in higher alertness, decreased drowsiness, and more mental energy," says Pierce J. Howard, PhD, author of *The Owners Manual for the Brain: Everyday Applications from Mind Brain Research* and director of research at the Center for Applied Cognitive Sciences in Charlotte, N.C.

"They also may protect against germs in the air, resulting in decreased irritation due to inhaling various particles that make you sneeze, cough, or have a throat irritation.

And for a whopping one in three of us who are sensitive to their effects, negative ions can make us feel like we are walking on air. You are one of them if you feel instantly refreshed the moment you open a window and breathe in fresh, humid air.

You may be one of them if you feel sleepy when you are around an air-conditioner, but feel immediately refreshed and invigorated when you step outside or roll down the car window," Howard says. "Air conditioning depletes the atmosphere of negative ions, but an ion generator re-releases the ions that air conditioners remove."

Negative ions are created in nature with air molecules broken apart from sunlight, radiation, and moving air or water. In

"The action of the pounding surf creates negative air ions and we also see it immediately after spring thunderstorms when people report lightened moods," says ion researcher Michael Terman, PhD, of Columbia University in New York. In a study conducted by Columbia University, 25 people with SAD (Seasonal Affective Depression) sat in front of a negative ion air purifier for a half hour every morning for a month. Half the subjects were given a low level of negative ions, and the other half a high level. The higher level of negative ion treatment proved to be as effective against SAD as antidepressants, such as Prozac and Zolof, and without the side effects of these drugs.

Negative ions are odorless tasteless molecules that are breathed into our respiratory system. High concentrations of negative ions can be found in nature in mountain forests, waterfalls, and beaches where people feel energized and invigorated, which helps relieve stress, alleviate depression, boost energy.

How Negative Ions Purify the Air:

Most all particles in the air have a positive charge or are positively ionized, while negative ions have a negative charge. Negative ions are drawn to these positively charged particles by magnetic attraction to one another. When there is a high enough concentration of negative ions in the air, they will attract to floating

particles in large numbers. This causes the particle to become **too heavy to remain airborne**. As a result, the particle will drop out of the air, keeping them out of the breathing zone and out of the respiratory system where it can trigger breathing and health problems.

Then the pollutant particles can be collected by normal cleaning activities, such as dusting or vacuuming. If the particles are forced back up into the air it will again be ionized and quickly settled out of the breathing zone once again.

In nature, negative ions are generated by processes such as sunlight, lightening, waves from the ocean, and from waterfalls. "Concrete Jungles" minimize the natural production of negative ions by disrupting the delicate electrical balance between the atmosphere and the earth. Most ionizers recreate them with electrode pins ("needlepoints") to electrically produce negative ions. This method produces a density that is many times higher than the negative ion level found at Niagara Falls, the highest natural producer of negative ions and one of the healthiest environments in the world.

Negative ions help prevent respiratory-related illnesses.

In a study conducted in a Swiss textile mill, negative ionizers were placed in two, 60' by 60' rooms, each containing 22 employees. In one room, the *negative ion electronic air cleaner* was turned on during the course of the study. In the other room, the *negative ion air purifier* was permanently turned off, although the employees in this room were led to believe they were working in a room enriched by negative ions. During this six-month study, a total of *22 sick days* were lost by employees working in the room in which the negative ionizer was operating. In the room where the machine was not operating, a total of *64 days* were lost to sickness. During a month-long flu epidemic, the first group lost a total of *3 days* to sickness, while the second group lost a total of *40 days* to sickness (Stark, 1971).

In a test involving a Swiss bank office, one group of 309 worked in a *negative ion-treated environment*. A second group of 362 worked in an untreated environment. Over the next several months, *for every day lost* to respiratory illness (cold, flu, laryngitis, etc.) in group one, *16 days* were lost to respiratory illness in group two (Soyka, 1991).

In a Surrey University study at the Norwich Union Insurance Group headquarters, eight **negative ion generators** were placed in the computer and data preparation section. Before the test, the research team spent a month compiling incident rates for complaints of sickness and headaches. During the test in which the *negative ion air purification systems* were in operation, incidents of sickness and headaches were **reduced by 78%**. After testing was completed, the Norwich Union opted to keep the *negative ion electronic air cleaners* (Soyka, 1991).

Negative ions counteract the effects of smoking.

High levels of negative ions neutralize the effect that tobacco smoke has on the cilia. Cilia are the microscopic hairs located in the trachea that move rapidly back and forth to prevent pollutants and toxins from traveling into the vulnerable areas of the respiratory tract. The faster the cilia move, the more effective they are. However, tobacco smoke slows down the ciliary beat, diminishing the body's ability to keep cancer-causing pollutants from entering the depths of the respiratory tract. Tests have shown though, that adding high levels of negative ions to the air **accelerates the ciliary beat to normal levels** (*Soyka, 1991*).

Negative ions are a natural anti-depressant.

. . . and without the side effects!

In a study conducted by Columbia University, 25 people with SAD (**Seasonal Affective Depression**) sat in front of a *negative ion air purifier* for a half hour every morning for a month. Half the subjects were given a low level of negative ions, and the other half a high level. The higher level of negative ion treatment proved to be as effective against SAD as antidepressants, such as Prozac and Zolof, and without the side effects of these drugs (*Finley, 1996*).

Negative ions for a positive attitude

Positive ions, which are found in abundance in most indoor environments, cause an overproduction of serotonin. Serotonin is a neurotransmitter that helps the body deal with mental, emotional, and physiological stress. An overproduction initially causes hyperactivity, which rapidly leads to anxiety, and in some cases depression. Negative ion treatment has proven to be successful in **reducing the overproduction of serotonin**, and therefore successful in alleviating depression in some cases (*Kreuger, 1957*).

Negative ions help us to sleep better.

In 1969, French researcher found that the overproduction of the neurohormone serotonin caused sleeplessness and nightmares. In using a **negative ion electronic air cleaner** to treat a group of people experiencing sleeping problems as a result of serotonin overproduction, he found that most of them were able to sleep better (*Soyka, 1991*).

Good Housekeeping Magazine

In March of 1999, **Good Housekeeping Magazine** had its engineers test an ionizer by using a smoke test, and found that it cleared out the smoke in a tank.

Agriculture Research Service (of USDA)

The **Agriculture Research Service of the U.S. Dept. of Agriculture** tested the effectiveness of ionizers for removing dust in a poultry hatchery. The dust level is very high in such an environment. In this study, the use of an ionizer resulted in **dust removal efficiencies** that averaged between **81.1 and 92.2%**.

The airborne transmission of salmonella (to the eggs) was also significantly reduced as a result.

Journal of Hygiene

Scientists showed that ionization reduced bacterial levels in burns and plastic surgery units by **over 96%** after a two week period, which results in much better and more rapid healing of patients.

Journal of Applied Microbiology

The use of negative ions was even found by scientists to reduce the presence of **airborne viruses** by about 40%. A study featured in the 1987 issue also showed the negative ions are free from any adverse side effects.

Science

A 1976 study featured in this publication provided evidence that negative ions can have a **biologically lethal effect** on airborne microorganisms.

Journal of Hygiene

A 1979 study found that using negative ionization in the air protected chickens from airborne infection of the deadly Newcastle Disease Virus.

Journal of Food Protection

A 2001 study found that airborne negative ionization was highly effective at destroying airborne and surface salmonella.

University of Medicine and Pharmacy (Romania)

A test on male rats showed that just moderate levels of negative ions increased the resistance of the rats, reducing or eliminating the effect of some chemicals. ([Summary of Study](#))

Effect of Negative Ions on Drivers

A study by Toyota Central R & D Labs, Inc. found that negative ions can improve fatigue and cognition of drivers. (Copy of study - PDF File http://www.tytlabs.co.jp/office/elibrary/ereview/erev371pdf/e371_065sakakibara.pdf)

Negative Charged Ions are Effective in Treating Cancer

(Cited from High-Voltage Treatment published by Youth Publishing)

In 1950, Dr. Haskell applied Negatively Charged Ions to patients of Hypertension. Amazingly, Negative Ions were proven to have a positive effect in lowering one's blood pressure, while no beneficial effects were observed with Positive Ions. Negative Ions are also effective against influenza, asthma and especially bronchial disease. Another study done by the University of Frankfurt involved a "Cancer Team" in order to further study the physical effects of Negative Ions to

cancer cells. Different types of cancer cells were transfused into the bodies of mice. In order to have a base of comparison, one group of mice were put into a negative ion environment each day while the other group remained untouched. As a result, the mice in the negative ion environment lived, on average, for 59 days, while the mice that were untreated lived no longer than 34 days. The mice from the experimental team lived 25 days longer; some even lived as long as 80 days! The experiment's result confirm the effectiveness of Negative Ions in treating cancer.

"Negative Air Ions Stimulate Mitochondria" Institute of Theoretical and Experimental Biophysics, Russian Academy of Sciences, Pushchino, Moscow Region, Russia.

<http://www.cryonet.org/cgi-bin/dsp.cgi?msg=12330>

Other Negative Ion Benefits

Asthma, Allergies, and other Respiratory Problems and Illnesses. Many scientific studies have been conducted over the years (mostly in Europe and Russia) showing how exposure to high levels of negative ions drastically or significantly reduce asthma and allergy symptoms, as well as respiratory-related illness. Studies have also shown a link between negative ion treatment and benefits for the following:

Migraine Headaches

Inhaling negative ions regulates the production of serotonin inside the brain. The overproduction of serotonin inside the brain is the cause of migraine headaches.

Depression

A study at Columbia University suggested that negative ion treatment is more effective than anti-depressant drugs such as Prozac and Zoloft, and there are no side effects with negative ions.

Fatigue

The overproduction of serotonin (chemical produced inside the brain) also causes fatigue, and negative ions regulate the production of serotonin inside the brain.

Sleep

A study in France found that negative ionizers helped people to sleep better, by regulating the production of the chemical serotonin in the brain.

Mental Performance and Concentration

Several tests have shown people exposed to negative ion treatment perform much better in mentally-oriented activities than those who are not.

Physical Performance

Due to test results performed by Russian scientists, negative ionizers were always installed in the locker rooms and resting places for the Russian athletes.

Burns

Studies performed in one hospital found that burn patients were far more likely to recover more quickly and thoroughly.

Negative Ion Study:

["Negative Air Ions Stimulate Mitochondria"](#) Institute of Theoretical and Experimental Biophysics, Russian Academy of Sciences, Pushchino, Moscow Region, Russia.

Other Negative Ion Studies:

["Health Tips: Healthy Breathing & Negative Ions"](#): Monumental Message

["Negative Ions and Computers"](#): Alaska Science Forum

[Air Ionizers wipe out hospital infections](#): New Scientist

["Treatment of seasonal affective disorder with a high-output negative ionizer"](#): The Good Drug Guide

[Negative ions explained in layman's terms](#): Chemtrail web site

[Advanced research on Ions](#): by Scientist Guy Cramer; Project Air

[Penn State University Graduate School of Architectural Engineering & Dept. of Biology](#)

["Negative Air Ions Stimulate Mitochondria"](#) Institute of Theoretical and Experimental Biophysics, Russian Academy of Sciences, Pushchino, Moscow Region, Russia.