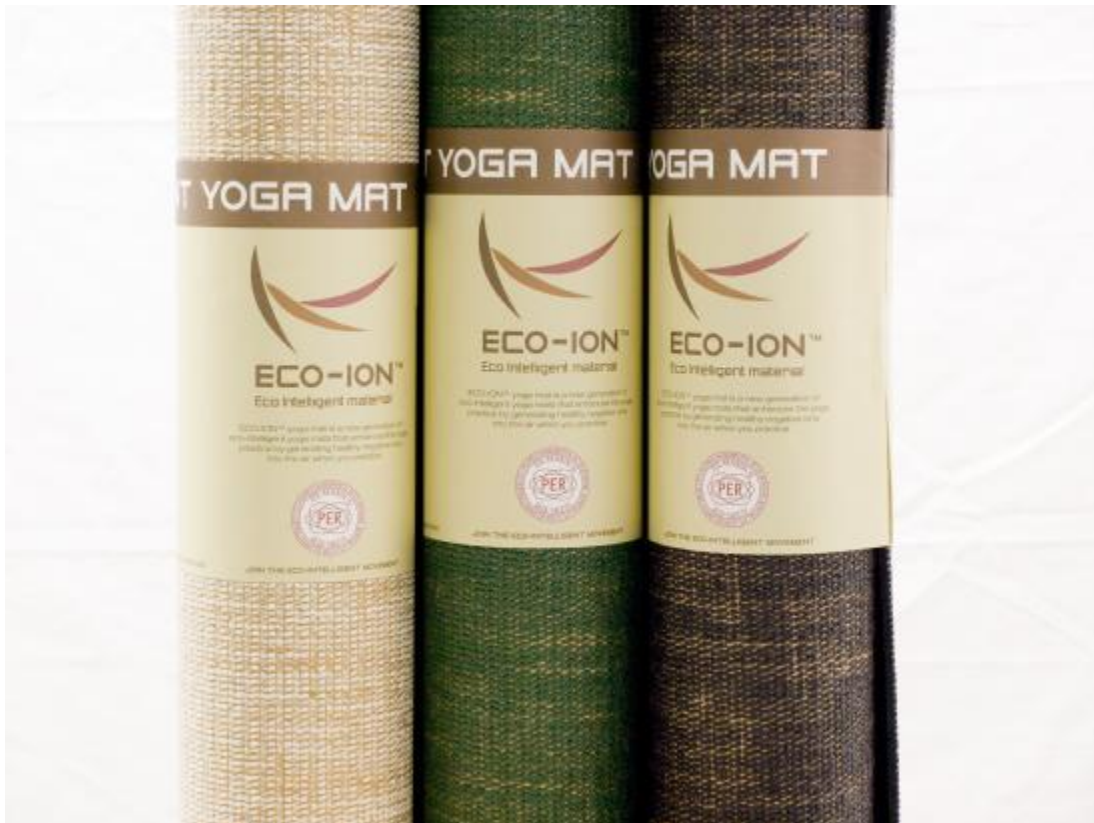


# Join the eco-intelligent movement



## NEGATIVE IONS IN THE ECO-ION™ YOGA MAT

### How it works

The friction created when your body touches the ECO-ION™ material releases high concentrations of negative ions into the environment.

### Jute – a source of negative ions

Jute fiber generates high concentrations of electrically charged particles, “negative ions”, that remove pollutants and allergens from the air. Negative ions have been shown to decrease symptoms relate to asthma, depression, anxiety and increases the body’s ability to absorb oxygen.



### Jute – an ancient healing plant

According to Switzerland botanist De Candole’s, the original habitat of the jute is the same as the home of yoga, India.

Jute has been known to have many healing qualities in thousands of years. It is known for the following characteristics: antiseptic, anti-static, ultraviolet rays. Jute itself is comfortable, breathe freely, wet proof and heat proof. Combining the jute material in a yoga mat is a way to help the yogi to reap all the benefits from yoga practice.

Studies have shown that jute can generate a great amount of minus-ions when touched and in friction. When practising yoga (or other exercises) with the jute mat, the jute mat users’ skin can absorb the negative ion directly. According to AsiaPac Net Magazine, they refer to a research report mentioning that when a person is in a negative ion environment, only 15% of minus-ions will be absorbed by the lungs and 85% will be absorbed by the skin directly, a very efficient way for the body to absorb the negative ions.

### **Eco-material with function**

Combining jute with recyclable eco PER-material, the ECO-ION™ material offers an eco-friendly yoga mat ideal for any yoga practice. The ECO-ION™ material also contains a unique blend of Essential oils associated with the yoga tradition and with anti-bacterial qualities.

### **PER-material**

PER-material stands för Polymer Environmental Resin and is certified by Oeko-tex as a eco-friendly material. Combining PER-material with natural jute makes a strong eco yoga mat that combines function/durability with eco-friendliness and care for the environment.



### **Negative ions**

An **ion** is an atom or molecule in which the total number of electrons is not equal to the total number of protons, giving it a net positive or negative electrical charge. A **negative ion** is an ion with more electrons than protons, giving it a net negative charge (since electrons are negatively charged and protons are positively charged).

Ions, both negative and positive, are naturally occurring in the environment. Negative ions offer many health benefits, while positive ions can take them away. It is very important to have a balanced level of ions, or a surplus of negative ions, as having more positive ions than negative can lead to stress, anxiety, and depression. Air conditioners and electronics around our homes and offices release positive ions and absorb negative ions.

### **Negative ions in nature**

Negative Ions are created in nature as air molecules break apart due to sunlight, radiation, and moving air and water. You may have experienced the power of negative ions when you last set foot on the beach or walked beneath a waterfall.

While part of the euphoria is simply being around these wondrous settings and away from the normal pressures of home and work, the air circulating in the mountains and the beach is said to contain tens of thousands of negative ions. Much more than the average home or office building, which contain dozens or hundreds, and many register a flat zero.

*"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.

Columbia University studies of people with winter and chronic depression show that negative ion generators relieve depression as much as antidepressants. *"The best part is that there are relatively no side effects, but we still need to figure out appropriate doses and which people it works best on,"* he says.

### **Vitamins of the Air**

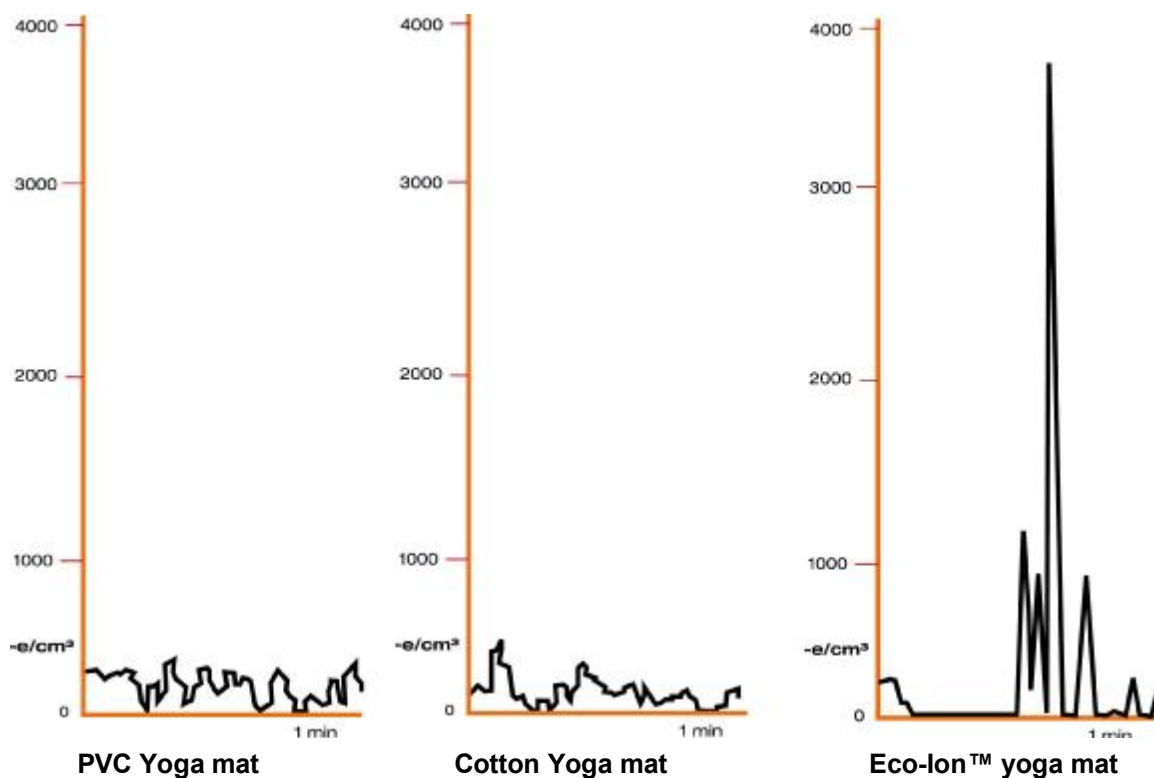
*"Generally speaking, negative ions increase the flow of oxygen to the brain; resulting in higher alertness, decreased drowsiness, and more mental energy,"* says Pierce J. Howard, PhD, author of "The Owners Manual for the Brain: Everyday Applications from Mind Brain Research" and director of research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

### Receiving the benefits of negative ions from the ECO-ION™ yoga mat

It is now possible to receive the benefits from negative ions while practising yoga. Research has shown that when you use the ECO-ION™ yoga mat, a substantial amount of negative ions are released into the air.

Knowing that most people spend too much time in front of their computer and other technologies that generate positive ions, getting in an extra dose of negative ions is good news.

Our tests have shown an increase of negative ions of almost 4000 units within 1 min of using the ECO-ION™ yoga mat. Compared to using a traditional PVC yoga mat or a cotton yoga mat, it is a very significant difference.



### Minus-ion test table

This table was analyzed by the ITS-801A. The analysis data is based on the output of minus-ion test apparatus ITC 201A. The tables show amount of negative ions measured in the air during 1 minute of yoga practice on different kinds of yoga mats.

Practice on the jute mat generates over 3500 -e/cm<sup>3</sup> compared to maximum 500 -e/cm<sup>3</sup> on the PVC- and cotton yoga mats.

**-e/cm<sup>3</sup>** = measured units of negative ions per cubic centimeter.



## **BENEFITS OF NEGATIVE IONS**

### **Nature generates negative ions**

Why do we feel so good walking in the woods, on a beach or near a river, breathing fresh air in the mountains, or just breathing fresh air after rain or storm? Simple... We feel like that due to benign properties of negative ions that are so abundant in these environments.

- Negative ions increase the flow of oxygen to the brain resulting in higher alertness, decreased drowsiness, and more mental energy.
- Negative ions help recovery from physical exhaustion and fatigue – achieved by increasing oxygen levels in the blood.
- Negative ions stabilize brain function – effect - relaxation and calmness.
- Negative ions aid in blood purification by increasing the levels of calcium and sodium (healthy salt intake) in the blood stream, negative ions help restore a healthy (slightly alkaline) pH balance to the blood.
- Negative ions increase metabolism by stimulating exchange of electronic substances in cells.
- Negative ions strengthen immune system - high levels of negative ions promote production of globulin (proteins that are found extensively in blood plasma) in the blood, resulting in stronger resistance to illness.
- Negative ions balance autonomic nervous system by balancing the opposing sympathetic and parasympathetic branches of the autonomic nervous system.
- Negative ions promote better digestion - by counteracting over-arousal of the sympathetic nervous system, negative ions help ease tension in the stomach and intestines, promoting the production of digestive enzymes and enhancing digestion.
- Negative ions promote cell rejuvenation by revitalizing cell metabolism, negative ions enhance vitality of muscle tissue and strengthening internal organs.

## REFERENCES TO RESEARCH ON NEGATIVE IONS

### **Vitamins of the Air**

*"Generally speaking, 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.

### **Relieve depression**

Ion researcher Michael Terman, PhD, of Columbia University in New York mention studies at Columbia University of people with winter and chronic depression show that negative ion generators relieve depression as much as antidepressants. *"The best part is that there are relatively no side effects, but we still need to figure out appropriate doses and which people it works best on,"* he says.

### **Negative ions in nature**

Dr. Svante August Arrhenius, a Swedish chemist who received the Nobel Prize in Chemistry in 1903, discovered that waterfalls and forests are full of negative ions. That is why the air is so fresh.

### **Refreshed by staying next to a waterfall**

Dr. Phillip Eduard Anton Lennard, at the turn of the 20th century, Nobel Prize Winner in Physics, confirmed that negative ions are found in very high density in the basin of waterfalls where we feel especially refreshed and re-energized.

### **Negative ions relieve allergies**

Ionization has been approved by the U.S. Food and Drug Administration (USFDA) as a means to relieve allergies. The results of a U. S. Department of Agriculture (USDA) study found that cleaning the air in a room by ionizing it can remove more than half of the dust particles. It can also remove nearly all of the harmful bacteria found in the polluted air.

(U.S. Food and Drug Administration)

### **Negative ions improve asthma and other respiratory conditions**

Brazilian hospitals now commonly use negative ion generators to treat breathing problems, after a test involving 36 children with asthmatic allergies. In each case, the problem was consistent or crippling. During the treatment, only one of them suffered an asthma attack. Afterward, no attacks were suffered by any of the children that sustained regular negative ion therapy (Soyka, 1991).

### **Improve respiratory conditions**

In 1966, a hospital in Jerusalem conducted a study involving 38 babies, between the ages of two and twelve months, with about the same degree of respiratory problems. The babies were separated into two groups of nineteen. One group was treated with nothing but a negative ion electronic air cleaner, while the second group was administered the standard treatment, which included drugs and antibiotics with side effects. The babies in the group treated with the negative ion air purifier were cured of asthma and bronchitis much more

quickly than those in the control group. The babies in the negative ion group were also found to be less prone to rebound attacks.  
(Soyka, 1991).

### **Respiratory conditions**

In 1975, an East German doctor, who had by then treated more than 11,000 individuals with various respiratory conditions with a negative ion electronic air cleaner, said that his patients reported with "monotonous regularity" that the therapy had worked (Soyka, 1991).

### **Respiratory conditions including asthma and allergies**

In the early 1960s, Dr. A. P. Wehner used negative ion generators to treat over 1,000 patients in the U. S. suffering from various respiratory ills, such as bronchial asthma, pulmonary emphysema, laryngitis, bronchitis, dry hacking cough, upper respiratory tract infection, and allergies. He reported that the symptoms completely disappeared in 30.3% of the cases, improved significantly in 42.3% of the cases, showed some improvement in 20% of the cases, and showed no signs of improvement in 7.4% of the cases.(Wehner, 1962).

### **Negative ions vs positive ions**

Positive ions, which occur in high levels in many indoor environments, inhibit the body's ability to prevent pollutants and contaminants from entering the vulnerable areas of the respiratory tract. However, an overdose of negative ions has proven to provide counteraction to this effect  
(Kreuger, 1974; Soyka, 1991; Tchijewski, 1960).

### **Clean the air**

A recent study by the U.S. Dept. of Agriculture found that ionizing a room led to 52% less dust in the air, and 95% less bacteria in the air (since many of the pollutants found in the air reside on floating dust particles).  
(U.S. Dept. of Agriculture)

### **Reducing dust**

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.  
(Agriculture Research Service (of USDA))

### **Assist in wound healing**

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 Hygiene)

### **Reduce presence of airborne viruses**

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. (Journal of Applied Microbiology)

### **Negative ions are needed in order to take in oxygen**

Russian scientist, Dr. A. L. Tchijewsky, tried raising mice, rats, guinea pigs, and rabbits in totally de-ionized air. Almost all of them died within two weeks due to an inability to utilize oxygen properly. (Tchijewski, 1960).

### **The importance of negative ions**

Tchijewsky's colleague, Dr. D. A. Lapitsky, tried raising small animals in air completely devoid of oxygen. He added only negative ions to the air as they were about to die from asphyxiation. At which point, their respiration frequency drastically increased, as they began to sit up and run around the chamber (Tchijewski, 1960).

### **5000 studies show the the positive effects of negative ions**

Fred Soyka, author of "The Ion Effect" reports that based on the 5,000 plus scientific documents that have been published regarding negative ion studies, all support the conclusion that an overload of negative ions seems to be beneficial (Soyka, 1991).

### **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).

### **Negative ions reduce respiratory illness**

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).

### **Negative ions reduce head ache**

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. 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 help prevent migraine headaches**

Migraine headaches originate when an overload of serotonin causes the diameter of blood vessels leading to the brain to dilate, and get wider in the brain. Consequently, blood flow increases, and pain receptors in the vessels are stretched, which leads to the excruciating pain associated with a migraine headache (Borne, 1998; others). In numerous tests and studies though, negative ion treatment has proven to prevent the overproduction of serotonin, and therefore the subsequent migraine headaches (Kreuger, 1957; Soyka, 1991; Sulman, 1974).

### **Negative ions are a natural anti-depressant**

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 Combat Fatigue**

In 1957, a study published in the Journal of General Physiology concluded that negative ions reduce the overproduction of serotonin, a neurohormone that leads to exhaustion, among other things, when overproduced (Kreuger, 1957).

### **Negative Ions Enhance Mental Performance and Concentration**

In 1969, Dr. Sulman, head of the department of Applied Pharmacology at Hebrew University in Jerusalem at the time, brought in groups of people to spend some time in a room low in negative ions, and also in a room that contained an "overdose" of negative ions. While in each room, subjects were given word, figure, and symbol tests. They scored "significantly higher" on these tests when they were in the negative ion-enriched room. Plus, while in the negative ion room, they showed (via the electroencephalogram) a slower, stronger pulse rate of Alpha waves from the brain. Alpha wave rhythms are a measure of the brain's activity and health. A slow, strong Alpha wave pulse rate indicates healthiness, calmness, and heightened alertness. When the subjects were in the negative ion-deficient room, they showed signs of irritability and fatigue in addition to lower test performance (Sulman, 1974).

### **The more difficult the better**

In the study conducted by Surrey University at the Norwich Union Insurance Group headquarters, the employees in the computer and data preparation section that were exposed to high levels of negative ions showed a 28% increase in overall task performance. The more difficult the task, the more dramatic the improvement tended to be (Soyka, 1991).

### **Negative ions enhance physical performance**

After World War II, the Russians extensively studied the relationship between negative ions and physical performance. A team of doctors, psychologists, and physicists observed and measured the performance of Olympic athletes in various conditions of negative ions levels. In each test of physical performance, the group that trained in facilities, and stayed in quarters high in negative ion concentration showed tremendous improvements in performance in comparison to the control group (Minkh, 1961).

### **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).

### **Negative ions aid in the treatment of burn patients**

In 1959, Dr. Kornbleuh treated a group of 138 burn victims at Northeastern General Hospital with negated ionized air. Within this group, 57.3% suffered significantly less pain and discomfort, while healing more quickly and thoroughly. Only 22.5% of the control group (the group of burn victims treated through conventional methods rather than negative ionization) experienced similar improvements in the same time frame. Statistically, the odds are 1,000 to 1 that these results were coincidental. This study, along with other follow up tests, were evidence enough for the hospital, which subsequently equipped its postoperative wards with negative ion generators. The effectiveness of negative ion treatment in these tests are likely a result of the extraordinary ability of negative ions to remove pollutants from the air, resulting in reduced infection and irritation of burn wounds. (Kornbleuh, 1959).

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### **My Spirit brand**

ECO-ION™ is a trademark owned by LivsHälsa AB, Sweden.

It is part of the My Spirit yoga & fitness brand with a line of yoga clothing, yoga mats and other accessories for yoga, fitness and spa.

My Spirit products are allways eco-friendly and made from eco-certified materials and fabrics. [www.myspirit.se](http://www.myspirit.se)

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