

## Why negative ions and low-level ozone?

*Negative ions* and *ozone* are **nature's most powerful air-cleansing agents**. There is nothing in the world more effective in taking allergens and contaminants out of the air we breathe. Unfortunately, due to the tight construction of today's homes and buildings, they are unable to take effect within indoor environments.



Negative ions and ozone are **created by nature**, and found at their most **optimal levels where the air is most pure and healthy**. These places typically include up in the mountains, near waterfalls, where lightning has just occurred, in open meadows away from "the city", and the ocean shore by the crashing waves.

### Negative Ion Facts

- Approved by the **U.S. FDA** (Food & Drug Admin.) as an approved allergy treatment.
- Ionization is mandatory in many **European and Russian Hospitals**.
- 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).

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### *what are negative ions?*

Negative ions are electrically-charged particles in the air that **remove airborne contaminants** from the air we breathe, and have a **rejuvenating effect** when interacting **with physiological systems** (such as the respiratory system).

Have you ever noticed that how refreshing the air is when you are in the **mountains**, or by a **waterfall**? Or how revitalized you feel?

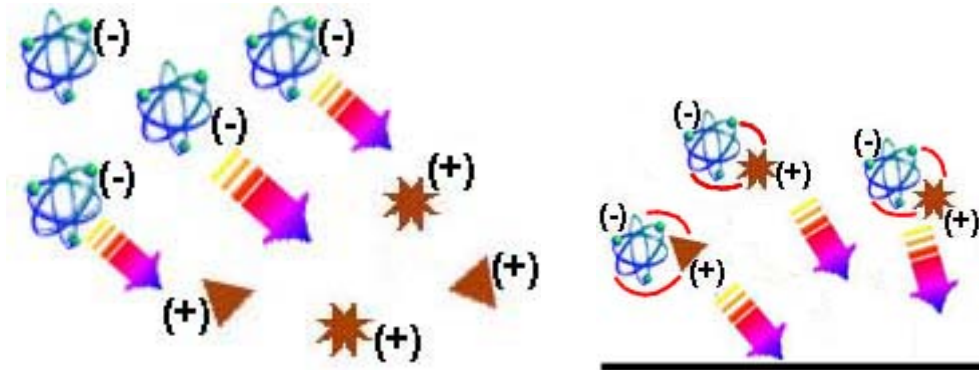
The explanation for this is that there are usually at least **2,000 negative ions per cubic centimeter** (which is optimal) in these environments. On the other hand, there are only a couple hundred negative ions per cubic cm. in the typical indoor environment.

The reason indoor environments lack the electrical "nutrients of the air" that we need is that today's "**air-tight**" **homes and buildings** prevent them from treating the air inside.

Plus, most homes and buildings are in urban settings and other places where the earth is covered by mostly **concrete and asphalt**. Large amounts of concrete and asphalt, and other structures fabricated by man tend to disrupt the air's electrical balance in areas where they reside.

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### ***How do negative ions remove pollutants from the air?***



**Negatively-charged negative ions attach themselves to contaminants and allergens, which are positively-charged. The newly-formed larger particles are then able to fall to the ground, and out of the air we breathe.**

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Most floating contaminants and allergens are positively charged, and of course, negative ions are negatively charged. In environments where high densities of negative ions exist, they are able to **reverse the charge of floating contaminants** to a negative charge.

This results in a **magnetic attraction** among the floating pollutants in the air, causing them to aggregate, or **clump together**.

As a result, they become **too heavy to remain floating in the air**, and fall harmlessly to the ground, where they cannot find their way into your respiratory tract.

At this point, even if they are inhaled before falling out of the air, these now larger particles are **able to be intercepted by the "filters"** of the upper respiratory tract, due to their increased size.

Of course, without a continual generation of negative ions, some of these enlarged pollutants can find their way back into the air. H<sub>2</sub>O *air purification systems* are **designed for continual use**, ensuring pollutants stay out of the air you breathe.

Some studies suggest that negative ions also have a biological effect on bacteria and viruses, **killing them on contact** in many cases.