

What is Natural Cellular Defense?

Waiora's Natural Cellular Defense has been clinically formulated to help support a healthy immune system, remove heavy metal toxins and balance your body's pH levels.* Waiora's Natural Cellular Defense is comprised of an activated, naturally-occurring zeolite, in a liquid colloidal suspension.

What are zeolites?

Zeolites form in nature as a result of a chemical reaction between volcanic lava and saline water. Zeolites have large open spaces or cages in their structures that form channels. These channels allow the easy movement of ions and molecules into and out of the structure. This ability puts zeolites in the class of materials known as "molecular sieves."

There are about 40 naturally occurring zeolites and over 100 synthetic zeolites. There are three different classes of zeolites with varying molecular chemical structures:

- Chain-like structures whose minerals form acicular, or needle-like, prismatic crystals—as found in asbestos (harmful to humans).
- Framework structures where the crystals are more equal in dimensions - as found in chabazite.
- Sheet-like structures where the crystals are flattened—as found in clinoptilolite, which is safe for humans, having been granted GRAS (generally recognized as safe) status by the FDA.

Zeolites are one of the few negatively charged minerals found in nature. The natural properties of zeolites act as molecular sieves, or filtering agents, that attract and trap positively charged atoms, ions, and compounds, and can remove them safely and effectively.

Which zeolite do you use for the Natural Cellular Defense?

We use naturally-occurring clinoptilolite in the Natural Cellular Defense. This particular zeolite has been used for over 800 years in traditional medicine to improve general health. It has been widely used in its raw form in places like India, China and Russia. In the United States, zeolites have been used in water filtration, air purification, animal feed and even in fertilizers to keep the crops healthy. Now we're using it in an enhanced form using a proprietary activation technology as a dietary supplement.

How does Natural Cellular Defense work?

The activated zeolite in the Natural Cellular Defense (clinoptilolite) attracts and traps small, positively charged particles that fit into the pores and channels of the zeolite cage. Natural Cellular Defense has been shown to remove mercury, lead, cadmium, arsenic and other heavy metals.*

How is Natural Cellular Defense different than any other zeolite product on the market?

Natural Cellular Defense is the original liquid activated zeolite with over 3.5 million bottles sold worldwide. Our proprietary process of micronization and activation ensure that Natural Cellular Defense is the only zeolite with particles smaller than one micron (for absorption in the bloodstream) and cleaned of any impurities (so it can readily attract positively charged heavy metals and toxins). Thousands of testimonials attest to the unique and life-changing nature of this product.

Why does the Natural Cellular Defense sometimes look, taste or smell differently?

The activated zeolite in the Natural Cellular Defense (clinoptilolite) is an all-natural mined product. As such, there will be some variability as to its excess mineral content. Although these are very slight variations, they can cause great differences in the taste, smell and color of the product. Each bottle meets label claim for 24mg of Clinoptilolite per serving, confirmed by manufacturer and third-party tests.

Why is some of the product tinted brown or green?

Because the activated zeolite is a naturally mined mineral, its pigment qualities can be affected by outside elements—time of year, air and water (i.e., in the spring time, there may be more rain or snow run off as opposed to the fall). The color variations of zeolite can and do range from an off-white/ beige color to a light green. Although these are very slight variations, they can cause great differences in the organoleptic properties of the product (color, taste and smell).

A recently tested sample of the product contained less than one (<1) microgram of iron. This was certainly enough iron to change the color of the product, but not enough to have any physiological effect. As an example, an average bite of steak has approximately 500 micrograms of iron.

Why are other mineral products consistent, while the activated zeolite in Natural Cellular Defense may vary from one bottle to the next?

Most multi-mineral products use formulations of single, purified minerals. These are known quantities that may be entirely consistent. The Natural Cellular Defense uses a natural, mined product that contains natural variations of its mineral content. While the amount of the zeolite is standardized and remains constant in the product (that is it meets label claim), the excess minerals may change.

So, what is actually in this mineral? Is it something that we can find on the periodic table?

It's a mineral with a cage-like structure. It's created by aluminum and silica that are trapped in small tetrahedra (pyramid-like structures) created by oxygen atoms. These elements are listed on the periodic table (not zeolite itself). These form 8-sided and 10-sided rings that stack on top of each other to form channels. The aluminum is positively charged and the oxygen around it is negatively charged, giving the entire molecule a net negative charge. This is a very stable compound. For all practical purposes, this is an invincible molecule.

Can the aluminum be absorbed into the body from the zeolite?

No. The aluminum in the product is at the center of a tetrahedron (it's surrounded by tightly-held oxygen atoms). It is not free to exchange into the system. So imagine you have a pyramid that's made of oxygen with aluminum in the center of that pyramid. It's what they call 'non-exchangeable aluminum'. Studies have been done where we have found that Natural Cellular Defense increased the excretion of additional aluminum, which means that the zeolite is pulling aluminum out of the body in addition to the aluminum contained in the product itself.

Who needs to take Natural Cellular Defense?

Everyone is exposed to heavy metal toxins on a daily basis in the air they breathe, the food they eat and the water they drink. In order to remove these toxins and maintain a clean and healthy body, everyone should take Natural Cellular Defense on a daily basis. We recommend the product for persons 18 years of age or older. People under the age of 18, pregnant women and children should consult their physicians prior to use.

If there are variations in minerals content in the product, is it safe?

Absolutely. The variations in the excess mineral content are negligible. While these minute variations of minerals such as calcium and magnesium can significantly affect taste, they do not constitute supplementation of the minerals themselves.

Will heat affect the zeolite in the Natural Cellular Defense?

The zeolite is an extremely stable molecule that can withstand very high temperatures (over 900 degrees Fahrenheit). Hot days will not change the product or limit its efficacy.

Will cold alter the product in any way?

The zeolite is completely stable at cold temperatures. If the product becomes frozen, simply defrost it and shake it lightly before using to ensure a uniform suspension of the zeolite.

Will the glass bottle break easily?

The FDA-approved, pharmaceutical grade of glass in the new packaging is very robust. It would take substantial force to break the glass. However, in the event that the bottle was broken during shipping, Waiora would replace the bottle at no cost.

Can the zeolite in the Natural Cellular Defense lower potassium in the body?

No. The zeolite has a very specific reactivity series. Smaller atoms with higher positive charges have greater affinity for the zeolite. Heavy metals tend to be small and highly charged while essential minerals tend to be larger with lower charges. For example, arsenic has a charge of +3 and a diameter of 1.8 Angstroms. Potassium only has a charge of +1 and a comparatively large diameter of 2.8 Angstroms. Arsenic has high affinity for the zeolite while potassium has almost no affinity for the zeolite.

How is Natural Cellular Defense manufactured?

The manufacturing facility itself is certified to be cGMP-compliant (current-Good Manufacturing Practices) by the FDA. GMP is an FDA (Food & Drug Administration) term for the Quality Control and Quality Assurance (QA/QC) procedures that are standard in the facility. This also includes training of the personnel, storage of materials and micro-analysis of the product.

The manufacturing process involves micronizing the zeolite so the particle size is small enough to enter the bloodstream, and activating (cleaning) the zeolite so its cages are optimized to attract heavy metals and toxins. The finished product is sent for analysis using Thin-Layer Chromatography (TLC) and High-Performance Liquid Chromatography (HPLC).

The product is also sent through a detailed micro-analysis, where it is evaluated for any sort of contamination (bacterial, molds, spores, etc.). Finally, some bottles from every batch are retained so that these can be tested on a future date if it becomes necessary. We also periodically inspect the manufacturing facility and all of their batch records.

Why did Waiora switch manufacturers for Natural Cellular Defense?

Our latest cGMP manufacturer has greater storage and production capacity, access to more R&D (for future studies and trials), as well as a willingness to partner closely with us as we develop future products containing this one-of-a-kind activated zeolite.

Does that mean the product changed?

No. The product and manufacturing processes are the same product and manufacturing processes that have been created and overseen by its chief formulator, Rik Deitsch. Mr. Deitsch worked DIRECTLY with the manufacturer to maintain the stringent protocols, standard operating procedures and high-quality standards you have come to expect.

* These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.