



## Natural Cellular Defense and zeolite - is it the next big thing in nutritional therapies for cancer and chronic disease?

Thursday, December 01, 2005 by: [Mike Adams](#)

You may not believe what you're about to read. Early indications are that this could be a significant breakthrough in nutritional medicine, cancer treatments and heavy metals detoxification. If early reports are to be believed, it far surpasses even the most miraculous cancer drugs from the world of conventional medicine, as you'll see below. It could also be nothing special at all, some critics say, and we'll explore that side of this story as well.

Read this article carefully, and remember that as the author of this article, I am in no way financially involved in this company or its products. My level of interest in this product is due solely to its apparent potential for ending suffering, not from any financial reward on my part - because, again, I have absolutely no financial ties to this product or its manufacturer.

What is this product? Let me put this into perspective for you. Recently, the conventional medical community went positively nuts over the latest anti-cancer drug, Herceptin. This drug, which was clinically shown to reduce the rate of recurring [breast cancer](#) by 43%, has been deemed a "cure for [cancer](#)" by physicians and oncologists who live in the realm of pharmaceuticals. This is the most amazing drug they've ever seen -- 43% reduction -- and they're calling for it to be widely prescribed, even to those women who don't have breast cancer.

Here's a question for you: what if there were a non-prescription substance, made from natural ingredients, which had been correlated with cancer remissions in 78% of stage 4 [cancer patients](#) in a preliminary trial? (This was a small-scale prelim trial, so don't draw erroneous conclusions based on this single study...)

If you know anything about cancer, you're probably already thinking this can't be true. It's simply too good to be true. But actually, I'm not done explaining it yet...

What if this substance was virtually tasteless, odorless and easily consumed in [water](#)? That way, cancer patients (who have a very difficult time handling anything that tastes funny) could stomach it?

What if this substance also functioned as a potent [detoxification](#) supplement that binds with [heavy metals](#), PCBs, pesticides and other cancer-causing chemicals and pulls them right out of the body?

What if it could bind with nitrosamines in the [digestive tract](#), protecting people from the cancer-causing effects of [processed meat](#) preservatives?

What if this were backed by an approved U.S. patent, supported by convincing [scientific research](#), and already on the GRAS (Generally Recognized As Safe) list for food ingredients?

And what if it were available right now, as a new breakthrough in nutritional medicine, that's shipping to customers as we speak?

## Natural Cellular Defense

The news is that there is such a nutritional product. It's called **Natural Cellular Defense** (NCD), and it's based on research conducted by reputable (and pioneering) scientists from the world of -- believe it or not -- pharmaceutical medicine.

There's a lot of excitement (some say it's just hype) over NCD right now, especially online. Critics, however, point out that NCD is not safety approved by [the FDA](#) for any specific disease. Then again, neither is zinc, pomegranates or [green tea](#), and we all know those are proven disease fighters. Besides, FDA safety approval doesn't mean much to anybody who knows how the FDA really operates, since the agency routinely approves deadly drugs like [Vioxx](#) that have killed hundreds of thousands of Americans already (and continue to do so each year). Recently, too, an FDA safety panel gave near-unanimous approval to a [diabetes](#) drug that doubled the risk of heart attacks and strokes -- another Vioxx disaster just waiting to happen. But that's a different article.

The relevant question here is this: is NCD safe? And is it really a breakthrough supplement that could save lives and help prevent cancer and other degenerative diseases?

Let's take a closer look at the function claims emerging from the research on this substance conducted by Rik Deitsch (background info on Rik provided later in this article). According to his research document, which you can download and read yourself (see "learn more," below), NCD exhibits the following actions:

**1. Reduces cancer risk.** Although only one small human trial has been conducted, the results were intriguing: 78% full remission for stage 4 cancer patients (with various types of cancer). The study was an open-label trial conducted by the researchers at LifeLink Pharmaceuticals in Ohio. Although one small study is not grounds for leaping to solid conclusions about cancer, this result is promising enough to warrant additional investigation. Any anti-cancer effect is probably due to NCD's ability to induce tumor suppressor genes that cause the body to not only halt the growth of tumor cells, but actually destroy such tumors. The technical explanation on this reads:

*Finely ground natural zeolite powder has also been shown to induce activation of p21WAF1/CIP1. As a universal inhibitor of cyclin-dependent kinases and one of the target genes of the tumor suppressor p53, p21WAF1/CIP1 can act as a tumor suppressor through its ability to control cell cycle progression. Activation of p21WAF1/CIP1 may halt the growth of tumors by directly suppressing growth signals. However, tissue culture experiments demonstrated that activated zeolite particles inhibit protein kinase B/akt, another kinase involved in antiapoptotic processes and cancer promotion. This happens only when growth of cells in tissue cultures is stimulated by the addition of growth factors. Zeolite particles might adsorb growth factors or prevent interaction of protein kinase B with membranes, where it is phosphorylated by phosphatidylinositol 3-kinase. It has recently been shown that inactivation of protein kinase B by, for example, the novel tumor suppressor molecule PTEN also results in induction of the tumor suppressor-CDK inhibitor p27KIP1.*

**2. Acts as an antioxidant.** Thus, it counters free radicals and helps the body defend itself against free radical / DNA damage.

**3. Traps and nullifies nitrosamines in the digestive tract.** This is of monumental importance. If you've read much on this site, you already know I've been sounding alarm bells about sodium nitrite and nitrosamines found in processed meats. (I've covered the issue in depth in my book Grocery Warning.) These nitrosamines are potent cancer-causing agents that appear responsible for the dramatic increase in cancer risk that follows the consumption of processed meat products (bacon, sausage, pepperoni, etc.) Pancreatic cancer rates shoot up 68%, and colon cancer rates are similarly heightened. Leukemia and brain cancers are also strongly correlated with processed meats consumption.

Additionally, we've also learned just recently that nitrosamines are a causative factor in type-II diabetes. Yet consumers are eating nitrosamines almost every day in their sandwich meats, pizzas, canned soups and other manufactured food products. NCD captures and isolates those nitrosamine compounds from the body, preventing them from reacting with the body's biochemistry. This single effect of this product could, in my estimation, potentially save the lives of millions of children and adults every year, all around the world. More detailed studies need to be conducted, of course, to determine the precise protective effect, but the initial information is very intriguing.

**4. Chelates and removes heavy metals from the body.** This is substantial. It is known to remove mercury, cadmium, and lead, all of which are strongly correlated with various neurological disorders such as autism, Alzheimer's disease, dementia, etc. The heavy metals research that I've seen, however, was conducted outside the body (not in human subjects), so there remains a lot of research that needs to be done in humans to further support this function claim.

**5. Provides immunomodulatory action.** This means it supports healthy [immune system](#) function which, of course, helps protect the body from a number of diseases and health threats.

**6. Acts as a broad spectrum antiviral agent.** After a few weeks of use, NCD reportedly begins to exhibit antiviral effects. This benefit is obviously very important for defense against infectious disease and even potential pandemic threats like the [bird flu](#). It doesn't mean NCD *treats* bird flu or any particular disease, but it could potentially help reduce the viral load in conjunction with other, more direct treatments.

**7. Balances pH levels.** This is also hugely important for maintaining overall health. Most people exist in a state of excessive acidity, largely caused by poor dietary choices. NCD helps balance that state so that the body can function at its greatest biochemical efficiency.

**8. Improves nutrient absorption.** Malnutrition is common in the populations of the western world, even for those eating excessive quantities of food. One of the main reasons is, of course, malabsorption of nutrients, and it is these nutritional deficiencies that so often lead to the onset of chronic disease, especially in the elderly. NCD reportedly improves nutrient absorption, thereby reducing the risk of [malnutrition](#), even without dietary changes.

## How does Natural Cellular Defense really work?

How does it do all this? As Rik explains, it has to do with the unique crystalline structure of the zeolites which make up the active ingredient in NCD. Zeolites are found in [nature](#), formed by the fusion of glass-rich volcanic rock with water (either fresh water or seawater). These zeolites have a rare property of being able to exchange positively-charged particles with surrounding elements without losing their structure. Zeolites are, essentially, negatively-charged [minerals](#).

This allows a zeolite crystal to act as a "cage" that traps particles and compounds, isolating them from the biochemistry of the organism. Thus it functions as a sort of dance club bouncer that captures free radicals, [carcinogens](#) and even viral particles, and tosses them out. Because of this unique mechanism, NCD offers a unique line of defense that complements existing nutritional therapies without redundancy. In other words, if you're already taking green tea supplements as a breast [cancer prevention](#) strategy, then taking NCD will only complement your green tea strategy, because NCD works from an entirely different biochemical mechanism than green tea.

A good question about NCD (and I don't know the answer to this) is whether NCD would be contraindicated for the dietary supplementation of minerals such as calcium, magnesium or trace minerals. Rik partly answers this in his rebuttal (below), where he explains the selectivity of the zeolites.

## Critics say zeolites cause harm

Critics of NCD, however, are saying this substance *causes* cancer. How can that be? They're referring to the fibrous structure of zeolite crystals and the problems encountered when a person inhales tiny crystalline structures. Inhaling [asbestos](#), for example, is known to cause lung cancer. The tiny, knife-edge fibers in asbestos slice up the tissues of your [lungs](#), then embed themselves and interfere with normal lung tissue function, ultimately leading to cancer (20 or 30 years down the road, sometimes).

My first response to the critics is simply that the zeolites in NCD are never inhaled. This is a product that's swallowed, not breathed in. So we're talking apples and oranges here. Of course volcanic rock will cause cancer if you grind it into fine dust and inhale it for hours on end. Almost any crystalline substance would do the same. But consuming it orally is an entirely different story.

We consume many other crystalline structures orally, including minerals and amino acids from our daily diet. Silica, for one, is a common nutritional supplement, and there's no indication that swallowing silica is harmful. Even spinach contains crystalline structures. And zeolites are on the GRAS (Generally Recognized As Safe) list maintained by the FDA. Not that the FDA has any credibility in my view, but it is a GRAS substance.

You can see this GRAS status mentioned at:

<http://www.gsaresources.com/PDSZK406H.htm>. There, the page goes on to explain, *"Natural zeolites are inert, non-toxic minerals which are federally classified as GRAS (generally recognized as safe) in most applications and exempted from regulations and reporting when used in accordance with good agricultural practice and when less than 2% in animal feed products (40 CFR, Part 180.1001)."*

I would also question the critics of zeolites with an obvious question: if zeolites caused cancer, then **how did 78% of the stage 4 cancer patients in the clinical trial find themselves in a state of full remission after taking NCD?** Obviously, if the substance promoted cancer, those people should never have survived the study. Seven subjects didn't survive, actually, but they were late-stage cancer patients, and the trial lasted 14 months.

Keep in mind this was a small study, so it doesn't prove anything conclusively all by itself. I've seen some talk on the 'net that claims this substance has been proven to cure all cancers with a 100% cure rate and other similar nonsense. That's extremely irresponsible, given how little we actually know about the efficacy of this supplement in the context of different diseases or conditions. More research clearly needs to be conducted. It may someday be solidly proven that NCD prevents or treats cancers, but the supplement is nowhere near that status today. (It would cost probably half a billion dollars just to fund the studies to determine the answer to those questions, by the way.)

The *Scientific Research Monograph* by Rik Deitsch explains more about the safety of NCD:

*The zeolite particles are negatively charged in the entire pH range (pH 1–11). Electron microscopy shows an absence of fibers, and most particles are round with a very rough surface. The absence of fibrous, positively charged particles is encouraging since such particles are present in asbestos and erionite zeolites, which are highly carcinogenic and mutagenic. In addition, activated zeolite particles do not catalyze the production of hydroxyl radicals, unlike asbestos or erionite. It seems that absence of fibrous particles capable of producing hydroxyl radicals makes this zeolite sample nontoxic and noncarcinogenic, at least when applied orally.*

## Rik Deitsch responds to critics

At the bottom of this article, I've reprinted Rik Deitsch's response to the primary critic of NCD. You can scroll all the way down to the bottom of this article to see the full response. It contains some solid scientific rebuttals to the critics, and also a good dose of emotional charge (almost as exciting as some of my own Big Pharma rants...)

The one contraindication on NCD that I'm fully aware of, however, is dehydration. If you take this product as a supplement and then fail to drink large amounts of water, you may end up causing harm through dehydration combined with circulating crystalline structures. Imagine sand flowing through a water hose, and then suddenly the water stops. What happens to the sand? It gets stuck in the hose. A crude metaphor, I know, but realizing that uric acid crystals circulating in the blood can cause havoc with joint pain, it seems wise to point out that full [hydration](#) is likely crucial for anyone choosing to take this product.

My main complaint about zeolites is that they have been tested on lab rats. As is standard procedure in pharmaceutical testing, lab rats are given cancer (through injection of carcinogenic substances, usually) and then watched for their response to the substance being tested. Because I'm a big animal rights supporter, and I have compassion for all living things, I'm not happy about this animal testing on the product, and I wish the manufacturer would announce an animal testing ban from here on out.

Rats are mammals, after all. They give live birth, just like we do. And although you might argue that sacrificing the lives of a few rats is worth finding a potential treatment for deadly diseases like cancer, I have an argument against that: most people with cancer *chose a lifestyle that causes cancer*, whether it's from cigarettes, eating junk food, avoiding exercise, and so on. The rats, in contrast, made no such choice. Cancer was forced upon them as an experiment -- sort of like making the rats pay for the sins of man. Thus, I believe it is morally wrong to give cancer to one group of mammals in order to discover a treatment for cancer in another group of mammals that's supposed to be of "higher intelligence" and yet isn't smart enough to stop its own self destruction.

An interesting moral question, for sure, and one that I'm likely to revisit in future follow-up articles.

## Is it the next big thing in nutritional therapy?

Because of the remarkable properties of zeolites, combined with the standing patent, the reputation of the researchers behind this product, and the desperate need for alternative solutions from people suffering from cancer, this NCD product stands well positioned to be a big deal in nutritional products. Today, very few people have heard about it (it was only released to the public recently). But a year from now, it could be well known and highly regarded in the healing communities.

If the initial function claims hold up in further testing on humans, NCD could be nothing short of an unprecedented breakthrough in cancer prevention, anti-aging, heavy metals detoxification and many other areas pivotal to the health of the public at large. This single product could conceivably play a significant role in the reversal of the health decline of populations in the [United States](#), Canada and developed nations around the world. This is especially true given the shocking fact that nearly every person in the United States has at least 125 [toxic chemicals](#) in their blood right now that don't belong there. Recent studies are even finding rocket fuel in 100% of breast milk samples taken from women across 18 states.

The potential success of this product depends on how this plays out, especially with FDA regulators who will no doubt be heavily scrutinizing this product. Why? My opinion is that the [cancer treatment](#) industry is one of the most politically powerful (and profitable) industries on the planet, and anything that competes with chemotherapy, radiation, surgery and mammography is bound to be attacked by [the AMA](#), FDA and old school doctors. But that's just my opinion based on the way [Dr. Burzynski](#) (and other cancer research pioneers) have been attacked and discredited, going all the way back to Hoxsey. Besides, **innovation is always the enemy of the status quo**. And the slash & burn approach to cancer being practiced today is definitely the "status quo."

In any case, while I can't predict the future with certainty, I'd say this product is positioned to be one of the most sought-after and talked-about disease prevention breakthroughs any of us have seen in a while. Although I can't be involved with this company (due to my journalistic ethical guidelines), I am ordering product for personal experimentation, and I do expect to write a number of follow-up articles on NCD as this story unfolds.