

Leaded or Unleaded?

By Keith Klein, CN, CCN

When I was a kid growing up during the late 1950's, I distinctly remember my mom scolding me for chewing on my windowsill. As usual, I didn't pay attention to that advice any more than I did to running with scissors. Naturally my mom felt comfortable pointing out how bad paint chips were for me when I got held back another grade in school. And all that time I thought it was windowsills I was supposed to keep out of my mouth. As it turns out, you don't have to chow down on paint chips anymore to overdose on lead. Just by purchasing many brands of popular supplements at your local health food store you could get well over 10 times the allowable level of lead in a single dose of supplement!

The first time I became acutely aware of how much hidden lead could be found within a single supplement was while reading a report from Consumer Lab. A few years ago, a popular vitamin store selling its own brand of Especially For Women, Everyday Complete Multi-Vitamins was found

to contain over 15 mcg of lead per daily serving. That equates to over 10 times the allowable level of lead by California's labeling standards. This really shocked me for several reasons. On the one hand, there should be a zero tolerance for lead within all of our edible products, especially supplements. Secondly, I had to wonder exactly how long this product had been on the open market and available to consumers? After all, lead accumulates slowly after years of exposure. But in a case where a woman is taking that much lead every day for a year, the contamination, side effects, and health issues could be enormous. Consider what would happen to a pregnant woman using such a product for few months before getting pregnant and then the 9 months of pregnancy. Not only would she be suffering from the lead overdose, but also there would be no way a developing fetus could survive in such a heavy metal environment. The developing brain, kidneys, and neurological system just couldn't withstand the toxic environment. And if the baby couldn't survive, would the mother think she lost the baby from her multiple vitamin? Probably not. Once I list the side effects associated with lead toxicity you will have to wonder how many women using this particular supplement came down with side effects? And if they did experience any problems, chances are pretty high that the real root of their physical problems was never associated with the supplements they were taking.



What causes lead poisoning?

Lead poisoning is caused by ingesting it. You get it by either breathing it into your system or swallowing it. So if you have high levels in your body the only way it got there was from your food, supplements, dust, paint, or water. For the sake of this article we'll stay focused on how lead has gotten into our supplements and what we can do to avoid it.

What are some of the side effects of lead poisoning?

There are a lot of side effects from consuming lead, and a lot of what you will experience is based on how old you are. Since lead can cause disturbances in growth and development, young children are more likely to suffer permanent, irreversible damage. Lead can damage every organ system with the most harm being caused to the brain, nervous system, kidneys, and the blood. Children can develop behavior problems, hearing problems, learning problems, and a reduced growth rate that could become stunted. Adults can also experience alterations to their behavior, hearing, and learning, but in most cases the problems aren't as noticeable because the effects often mimic other conditions. In adults the exposure can come from hobbies like working with stained glass or reloading ammunition, and therefore the exposure builds over time. But once the levels of lead become high in their bodies it can trigger irritability, fatigue, digestive problems, headaches, difficulty concentrating, memory loss, poor coordination, weakness in hands and feet, and changes in mood. It isn't until the level becomes really toxic that the person goes into convulsions, paralysis, and coma. A lot of these physical problems might prompt that person to seek out healthy approaches like using more supplements with a total lack of awareness that by using the wrong supplement they could make things a lot worse.

How is lead poisoning diagnosed?

There are two ways you can find out what your lead levels are; both tests are for heavy metal toxicity. But keep in mind that most people don't start to experience symptoms until their blood levels are very high. The first way to find out if you've been exposed to too much lead is through a blood test. While it's the first test usually done, it can't measure the total amount of lead in your body because most of the lead gets stored in the organs and some floats around in the blood. The more accurate way to know if you have high levels is through a 24-hour urine test. This is a sample of urine collected over a 24-hour period that can give an accurate level of total lead in your body. Hair analysis is the most inaccurate testing measure and should never be relied upon as the final tally of your lead levels.

How is lead toxicity treated?

The first step in treatment is to remove the offending agent. If you discover that you have high levels of lead in your body and you don't work around lead based products, you should send off your supplements for testing. That way you'll immediately know where the source of contamination is and be able to remove it. The only way to remove lead from your blood stream is through a treatment called Chelation Therapy and a balanced diet. Chelation therapy involves taking medicines that bind to the lead in your body and help speed its elimination through the kidneys into the urine. A physician usually administers chelation therapy through an intravenous solution into your arm.

How does lead get into supplements?

Because the raw material the manufacturers are buying and using in that particular supplement is contaminated to begin with, everything that is added into that supplement is now contaminated. It's important to point out that manufacturers are not deliberately adding lead into your supplements. The problem stems from the suppliers that do not do sub-sample testing on the raw ingredients before they sell them for human consumption. You may recall in America we switched from leaded gasoline to unleaded. The reason for that switch was because the lead within the gasoline was being released into our atmosphere, which made its way back to earth in the form of rain. As the lead contaminated the ground water and plants, anything that drank the water or ate the plants also became contaminated. Think cows and chickens here. Naturally we ate those cows and chickens, we even drank the milk from those cows, and ate the eggs from the chickens. So naturally we started becoming contaminated with lead. Once this cycle was discovered, America removed the lead from gasoline, toys, paint, and any other place that we could find to lessen exposure.

Not all countries have implemented the same standards. Since the world has become more global many of the commodities or raw materials we buy actually come from China, India, and other foreign nations. Since they still allow lead in their gasoline, paint, and toys, we can unknowingly import contaminated minerals, and raw materials that have come from their environment. Hence, many manufacturers try to save money by buying the raw ingredients used to make supplements from these foreign countries. Turmeric, calcium, magnesium, and just about any product that comes from the contaminated soils where the original products grew can contain high concentrations of lead.

How can I find out if any of the supplements I'm using contain lead?

The best place I know of is a website called www.ConsumerLab.com. On their home page they have a listing of all the supplements they have tested over the years. They constantly update all their findings and keep you posted on the feedback each supplement company gives to them and what they will do to correct the problem. They lab test for all different kinds of reasons and test hundreds of brands. They stay independent and are not associated with any of the companies they test. On every supplement they test they tell you brand names, what they found and then will approve or disapprove a supplement based upon the lab test results. They can't test every brand on the market, but they do a nice variety of popular brands. They test everything from multi-vitamins, flaxseed, CoQ10, to herbs, and protein bars, and shakes.

What are some of the examples of their findings in regard to lead within supplements?

Here's just a few of the brands which were found to contain lead, keep in mind if you want to find out more you'll need to subscribe to their website. It doesn't cost a lot, and the membership runs by the year. I've used this site for a long time and highly recommend it.

Multi-Vitamins

Ten, or nearly one-third, of the multivitamins selected for testing were found to contain significantly more or less ingredient than claimed or were contaminated with lead. In addition, several products (including three for children) exceeded tolerable limits established by the Institute of Medicine for nutrients such as vitamin A, folic acid, niacin and zinc.

Turmeric

NSI® Nutraceutical® Sciences Institute Superior™ Turmeric Curcuma Longa contained the highest amount of lead that ConsumerLab.com has ever found in a dietary supplement - 18.70 mcg of lead in its suggested daily serving of two capsules.

Solgar® Standardize Full Potency™ Turmeric Root Extract contained 4.17 mcg to 8.34 mcg of lead per day in its suggest daily serving of one to two capsules.

Greens and Whole Food Powders

InnerLight SuperGreens contained 19.6 mcg of lead in a 4-scoop daily serving. The amount of lead was surprisingly high for a relatively modest amount (12 grams) of powder. Toxicity from lead is a function of total exposure to all foods, beverages and your environment. The amount of lead in InnerLight SuperGreens alone exceeds the FDA's provisional total daily tolerable intake limit for children (6 mcg) and approaches the daily limit for pregnant women (25 mcg). For other adults (for whom the FDA tolerable limit is 75 mcg of lead) it represents a significant and unnecessary exposure to lead.

Nature's Way Alive!

Whole Food Energizer Ultra Shake Vanilla contained 4.3 mcg of lead and 12.8 mcg of cadmium in a 1-scoop daily serving. Although the amount of cadmium would not be expected to cause an immediate problem, long-term exposure may pose unnecessary risk to the kidneys. The federal cadmium limit in drinking water, for example, equates to 10 mcg per day in two liters of water (the typical daily consumption of water by adults).

Protein Powders

Nature's Plus Spiru-Tein Vanilla contained 4 more grams of sugar than the claimed 8 grams per serving. It also provided more carbohydrates (as sugars are carbohydrates). Rather than the 99 calories listed on its label, it provided 125 calories per serving (which included calories from 0.4 gram of fat found -- a tiny amount and legally within the claimed "0" grams of fat).

NutriBiotic Rice Protein Vanilla was contaminated with 6 mcg of lead per scoop (15 grams), or 18 mcg in the maximum daily serving of 3 scoops.

Metagenics® UltraMeal® Rice Natural Chocolate Flavor was contaminated with lead, 5.9 mcg per daily serving (4 scoops - 104 grams).

There are a lot more examples when you go to ConsumerLab.com website. In addition, you can read all about their findings, their concerns, and what's being found in the supplements they test. Sign up today at www.ConsumerLab.com.

The aspect that bothers me the most about these findings is that all of the companies being tested point the blame to their manufacturers, and don't take personal responsibility for the contamination. Shouldn't it ultimately be the company's responsibility to do independent laboratory analysis on all the products they put their name on and sell to us for consumption? If they are touting their products as healthy and good for us shouldn't they be fully responsible for making sure that they provide us with a completely safe product? It brings me back to the idea that whenever we walk into a health food store we are going there in an effort to get something healthy. After all, isn't that why they're called "health food stores" and not "unhealthy food stores?" I personally think that any company that is found selling contaminated goods, which are high in lead, should be immediately removed from the marketplace and destroyed. If there were the threat of losing so much money through destroyed inventories, the companies would opt instead to spend the \$1200.00 to take several sub-samples from their batches to make sure what they are selling is safe and free of undesirable contaminants.

Turkey Chili Potato Egg White Quiche

1. Preheat oven to 350 degrees.
 - 1 bag of shredded Simply Potatoes
 - 1 tall carton of Eggbeaters
 - 1 can of Wolff Brand Turkey Chili without beans
 - 1/2 onion diced Minced garlic and pepper to taste
2. Mix all the ingredients in a large mixing bowl and stir together well.
3. Spray a large glass Pyrex baking dish with butter flavored cooking spray.
4. Pour mixture into baking dish.
5. Bake for 50 minutes.

Note: *Make 6-8 servings.*

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Warm regards,

A handwritten signature in blue ink that reads "K. Klein" with a stylized flourish at the end.

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