

# **Summary of Detoxification Tips from Layna Berman LBAM show on Your Own Health and Fitness, KPFA Radio 2/26/08**

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Purging is not the way to do detoxification. Detoxification occurs in the liver with nutrients that boost your detoxification pathways. Purging, such as fasting, high colonics, driving things out of your system, is very stressful and invasive. One way to purge is chelation, which is introducing a substance that attracts poisons and then carries them out, but not everyone eliminates well, and it can also carry out useful substances, and can stress the liver and kidneys on the way out. The approach of boosting the body's endogenous or internal detoxification pathways with nutrient support is preferable.

In addition to avoidance of exposure, especially if sensitive, before any aerial spraying you should also make sure your water, air, food, and you are protected from pesticides, artificial scents, pharmaceuticals, and other chemical contaminants and pollutants as much as possible. Also reduce your exposure to all forms of radiation, because it creates enormous free radical production and inflammation in the body. That includes avoiding cell phone and wireless when you can, to keep your exposures down. Remember all toxins work in combination in unpredictable ways, and children are most sensitive. Reduce overall load of toxins in general.

When looking at an acute exposure, the next thing to do is support your liver, because your liver is your organ of detoxification. It produces a chemical called glutathione, which allows your liver to identify and eliminate the things that are considered to be poison, toxic, or not a happy thing for the body. Boost your liver's ability to do its job to detoxify, not by purging the body, but by nutrient support.

There are two phases, not always in 1, 2 order: Phase 1 is making poisons soluble in water for excretion by the kidneys. Phase 2 puts poisons in sort of a chemical box for safe passage, which is called conjugation. It ensures kidneys are not damaged during excretion, assuming your kidneys and everything are working properly.

Phase 1 can't do its job unless there's iron on board. Iron is tricky because it creates free radicals of its own, so you don't want to load up on iron and take a bunch of iron pills, which are the metal form of iron which is not the best way to get it. This is a situation where DNA variance can weaken the system, so being anemic makes this worse. Again though, too much iron is a bad thing, and iron should be gotten from food sources, not from pills that have the metal form of iron.

Also people with methylation problems, which has to do with carbon groups. If you have methylation problems you will see it in your family line. Consistent symptoms are being wired and tired, circulatory problems, psychiatric problems, thyroid problems, these people need extra folic acid, B12, B6, and in some cases tri-methyl glycine (TMG), which is made from beets, and is a methyl donor. So it's prudent that anyone concerned about detoxification make sure you have enough B12, folic acid, B6, in your diet, in your food, and in supplements, and you might add TMG. If you're very chemically sensitive, it's likely that you have methylation issues.

Again speaking of the problem with iron: For iron to work in the detox pathways it requires zinc along with iron, a full complement of vitamins, and in individual cases maybe higher doses than normal, although zinc at about 50 or 100 milligrams. Zinc usually works with copper, but people are really individual on this issue. Remember a good nutrient density and good robust multi-vitamin at the very least is absolutely essential for detoxification pathways to do their job.

There's another pathway that can get hosed up and that has to do with sulfation. This pathway depends on sulfur containing amino acids which we get from animal proteins, eggs, to some extent dairy products, meat, and fish. It's terribly important, because you cannot turn on the pathways that go to making glutathione, the chemical your liver uses to detoxify, without sulfur containing amino acids. Vegans beware: you might want to add in supplements in a pharmaceutical grade capsule. Without methionine or cysteine for example, you cannot produce the chemicals you need for detoxification. Vegans are notoriously low in B12, folate and B6, and often in carnitine.

Some people do have problems with sulfur containing proteins. People who don't sulfate well are people who get really gassy or get acid stomach from garlic and onion, or eat very sulfurous vegetables. People like that might sneak up on the supplement MSM, taking it orally, but starting with a very low dose, because it can cause gut irritation in sensitive people, but it might help to preserve your glutathione levels.

So again, not purging, but boosting detox. Look at methylation and sulfation. For methylation is the folic acid, B12, B6, and possibly TMG from beets. For sulfation mostly sulfur containing amino acids which actually start these pathways going. If you don't have them in your diet you can get them from pharmaceutical grade. As long as you eat food, you get the co-enzymes you need to digest and utilize these substances.

Absolutely essential to have good anti-oxidant status is vitamin C, sometimes used in very high doses after acute exposures to poisons. Vitamin C will give you the runs or a lot of gas if you take more than you can handle, but sometimes people can take more if they've been exposed to something acutely, they can take a higher dose. But take it throughout the day, and take it before you get exposed.

Accelerated cysteine, which is the sulfur again, works well for some people. Some people do better with alpha lipoic acid. These things turn into glutathione.

Selenium is a mineral that surprisingly is able to work as an anti-oxidant as well.

So check your iron status. You can use a little MSM if you need it, vitamin E, along with all your anti-oxidants. Vitamin A, E, C, and a multi-vitamin will protect your liver.

When your liver is damaged vitamin K goes down. Vitamin K is in dark leafy green vegetables. People often associate it with the blood being too clotty, but that's a misunderstanding. What it really does is mediate clotting, so when there's not enough clotting going on it will help, when there's too much clotting going on it will also help that. It protects the arterial and venous walls, walls of your veins and arteries. Vitamin K gets very low when the liver is taxed or damaged, so sensitive people will often need extra vitamin K, again the TMG, the folates, B12, B6.

Milk thistle might be good to add in in a tincture, to help boost the liver a little bit, to strengthen it.

If you go to an herbalist or an acupuncturist and they say "your liver is really hot", it's really pushing, or if you have a history of drinking problems or substance abuse, you might add in dandelion tincture to cool it down.

There are also some very gentle detoxifiers if you want to use some oral chelators, though I'm not sure that in the case of the spraying that that's the way to go. That's more for metals and such, but there are some chelators that are more gentle. Cilantro, in a tincture, is a good gentle chelator of poisons, chlorella, the blue green algae, oregano, also potassium iodide, called ssku, gets rid of mercury, and lead. But again, you're not talking about that with the spraying, but this just to give you an idea of how powerful nutrient interventions can be when people are exposed to horrible things. There was a study done by Carl Pfeiffer, orthomolecular vitamin and mineral researcher, in the 1970's in a battery plant in New Jersey, where workers had lead poisoning and vitamin C got them back to work...

Drink extra water, avoid toxins, turn on pathways by increasing your nutrient status, and take supplements half hour before you eat.