



## Real vs. fake detox



For every good phenomenon, there's commercial exploitation and co-optation. So it's been with the low-carb diet, the Paleo diet, and lately, the Keto diet—so much so that the unwholesome and inauthentic products that are promoted betray the original intent of the sound movements whose names they've appropriated.

The same is true of detoxification—or “detox.” The concept is valid. And ancient. Religions incorporate fast days and times of dietary austerity—think Lent and Ramadan. Paleo hunter-gatherers encountered natural cycles of feast and famine. In more modern times, the hedonistic upper classes of Europe flocked to spas like Baden-Baden to take “the cure”—an alcohol-free hiatus with light food, calisthenics, healing waters, and steam and sauna to sweat the accumulated toxins out of their bodies.

But unscrupulous marketers have capitalized on the popular tradition of detox to proffer dubious shortcuts. Most notorious are “detox teas,” many of which are laced with harmful laxatives.

The worst of these contain natural laxatives like senna and cascara sagrada. The latter, far from supporting the liver's essential detoxification role, can cause liver damage. Moreover, their profound purgative effects can cause dangerous electrolyte imbalances. But more commonly they simply foster laxative dependency. Continual use results in melanosia coli, a permanent dark pigmentation of the large

intestine wall.

There are also a host of juices, powders and potions that contain a smattering of herbs and vitamins, seemingly chosen at random for their exotic-sounding names.

The pervasive promotion of these unwholesome or worthless quick fixes has undermined the credibility of detoxification. Skeptics go so far as to brand detox a scam. They smugly assert *"No such 'toxins' have ever been found . . . Various herbal and dietary supplement concoctions are claimed to detoxify through metabolic action that is vaguely described or simply assumed to take place . . . no studies have demonstrated that they actually detoxify anything."*

The popular website [sciencebasedmedicine.org](http://sciencebasedmedicine.org) thunders:

*"'Detox' is a legitimate medical term that has been co-opted to sell useless products and services. It is a fake treatment for a fake condition. Real detoxification isn't ordered from a menu at a juice bar or assembled from supplies in your pantry. Real detoxification is provided in hospitals under life-threatening circumstances—usually when there are dangerous levels of drugs, alcohol, or other poisons in the body. Drugs used for real detoxification are not ingredients in a smoothie. What's being promoted today as 'detox' is little different than eons-old religious rituals of cleansing and purification. Framing detoxification in religious terms won't have the appeal in a world that values science. So use the word 'toxin,' not sin, and call the ritual a 'detox' – and suddenly you've given your treatment a veneer of what sounds scientific."*

Looking beyond these uninformed condemnations, a legitimate reservation that has been raised about detoxing is that it may foster an unhealthy mentality. Susceptible individuals can be reinforced in their obsessive belief that their bodies are somehow "dirty." This can lead to over-exuberant efforts to "cleanse," sometimes stoking eating disorders, which are becoming increasingly frequent. "Detoxing" can easily morph into purging, an antidote to binging.

But these objections don't belie the legitimate science which supports detoxification through reasonable methods substantiated by research. In a recent podcast, I interviewed Dr. Joseph Pizzorno, author of the authoritative book *The Toxin Solution: How Hidden Poisons in the Air, Water, Food, and Products We Use Are Destroying Our Health—AND WHAT WE CAN DO TO FIX IT* on "The Link Between Toxic Exposures and Common Diseases."

The underlying premise is that toxins—which infiltrate our bodies via air water and food and the drugs we consume, or are generated as byproducts of bacterial or fungal overgrowth in our GI tracts—are causative factors in suboptimal well-being and disease.

The science is undoubtedly legitimate, as evinced by the plethora of research that links environmental exposures to health problems, as well as emerging findings about the role the microbiome plays in disease causation.

The concept of "auto-intoxication"—first advanced by Nobel Prize winner Eli Metchnikov in the early 1900s—has recently been reinvigorated after decades of skepticism and disrepute by studies emphasizing the role of the microbiome and leaky gut syndrome in disease causation.

Therefore, detox boils down to two simple principles: Minimize exposure to the bad stuff and support the body's detoxification pathways.

And we know that certain procedures, diets, and supplements can “rev” the body systems that routinely help us mobilize environmental poisons as well as harmful byproducts of our metabolism. To deny this would fly in the face of modern medicine.

We have only to look at the effect of a simple natural compound—coffee. It’s been shown to upregulate the bodily systems that break down drugs, environmental contaminants and hormones. Studies have shown that coffee reduces the propensity to fatty liver and liver cancer. Its effects are a vindication of the principle of detoxification.

Other natural substances play similar roles. Glutathione, n-acetylcysteine, sulforaphane, vitamin C, selenium, milk thistle and probiotics are among the best studied.