

New Concepts in Detoxification (“Push” & “Catch”)

(Professional guidance needed for individual situations)

We are all increasingly exposed to hundreds of toxic chemicals and heavy metals, such as bisphenol A (a plasticizer chemical) and mercury. They cause inflammation that damages the function of the nervous system, immune system, detoxification (liver & kidneys), digestive system (causing leaky gut), hormones, and respiratory system, and the health of unborn fetuses. An inflamed, leaky gut allows more toxins from foods, water and bacteria to leak into the bloodstream, causing a vicious cycle of increasing systemic inflammatory response. Toxins and inflammation can persist for years, aggravating all chronic diseases.

The liver is the main detoxification organ, trying to capture, inactivate and remove toxic molecules and pushing them into the bile, which goes into the intestine for elimination, or preparing some toxins for elimination by the kidneys into the urine. However, a heavy toxic load can also damage the liver’s and kidney’s detoxification capabilities, weakening the defenses. Stagnant bile flow slows the elimination of toxins from the liver, and unhealthy intestinal bacteria can reactivate toxins in the intestinal tract, allowing their reabsorption back into the liver circulation. Even a healthy liver & kidney detoxification system can be overwhelmed and damaged by a heavy load of toxins.

Several kinds of “bitter herbs” have been found to stimulate the flow of bile and mobilization of toxins from the liver. Phosphatidylcholine, an important lipid in cell membranes, can be added to the bitters for fluidizing the bile as well as repairing damaged cell membranes in the liver and elsewhere. These promote the “push” phase of detoxification, and also help preserve liver function.

After toxins have been released into the intestinal tract with bile, reabsorption back into the liver can be prevented by having a variety of “binders” waiting in the intestinal tract at the right time to “catch” and hang on to them. No universal binder has an equal affinity to all toxins (metals, pollutants, plasticizers, and mold and bacterial toxins), so a well-chosen combination works better. (Any intestinal inflammation, bacterial overgrowth, and/or leaky gut should be repaired before starting this process.)

Binders can be constipating, increasing the time during which intestinal toxins could be reabsorbed, but this can be offset by taking stool-bulking fibers like acacia gum, and soothing molecules like aloe vera, with the binders. (If these are not adequate, milk of magnesia can also be taken after meals.)

These “**push**” and “**catch**” supplements need to be taken on empty stomach to avoid competition with food and other supplements. The “catch” supplements should be about ½ hour after the “push” supplements for optimum effectiveness, then wait another ½ hour before eating. This combination can be done once or twice a day depending on activity schedule; some experts recommend stopping for 2 days per week to rest the detoxification system (take mineral supplements on days off).

Note: Side effects usually mean trying to go too far too fast, suggesting a higher toxic burden being mobilized, more common in sicker people. Having any side effects at all means time to pause the program until the effects resolve before resuming. It’s better to **start** with the “catch” phase (**GI Binders**), and **then gradually add** the supplements of the “push” phase (**Liver Cleanse**), starting low and going slow to avoid detox side effects. Adjust and customize this process for good tolerance.

With brain fog or degenerative neurologic symptoms, Brain/Mitochondria (mobilizing toxins from the brain) can be added after Liver Cleanse is well-tolerated. For this stage also, start low and go slow. The necessary duration for detoxification varies according to type and severity of toxic burden, detoxification genetic factors, coexisting inflammatory and infectious diseases, and nutritional status.