

# What Is Metabolic Detoxification?

Over time, the buildup of unhealthy chemicals from the environment and lifestyle choices may compromise the way your body works and can even affect your health. If you've experienced lack of energy, brain fog, or even digestive discomfort, your healthcare practitioner may recommend a metabolic detoxification program, or "detox," to help remove unwanted and potentially harmful compounds from your body.<sup>1</sup>

## Signs you may benefit from a metabolic detoxification program:



## 3 steps to "detox"

Detox or metabolic detoxification reduces the body's toxin load by lessening exposure to harmful chemicals while simultaneously implementing nutrition and lifestyle strategies to promote efficient elimination of toxins from the body.<sup>1</sup> Detox is done in three steps, usually over 10 or 28 days:

**Step 1: Elimination.** Your practitioner will have you eliminate potentially allergenic foods, providing you with a list of foods to eat and foods to avoid.

**Step 2: Detoxification.** You will be eating from a limited menu and increasing supplements as indicated or recommended. Certain vitamins and minerals—like B vitamins and iron—are required to assist in enzyme activity to help fortify your body's pathways of detoxification in the liver so toxins can be easily removed.<sup>1,2</sup>

**Step 3: Reintroduction.** You will slowly reintroduce approved foods, paying careful attention to any reactions you may have.

## Common ingredients removed on an elimination diet:



Wheat/  
gluten



Corn



Steak



Dairy



Eggs



Caffeine



Soy



Peanuts



Alcohol



Shellfish

## What's happening in my body?

The body undergoes three phases of the cleansing process.

**Phase I: Reaction.** Your body reacts to toxins by using enzymes (known as P450 enzymes)<sup>2</sup> that act to turn the toxins into free radicals. Through this conversion process, toxins become water-soluble molecules that are easier for your body to get rid of via the kidneys.<sup>2</sup>

**Phase II: Neutralization.** The molecules attach to other water-soluble substances to increase their solubility and make them easier to eliminate through urine or bile.<sup>2</sup> This process is called a conjugation reaction and requires cofactors (metal ions or coenzymes) to make it happen.<sup>2</sup>

**Phase III: Elimination.** In this process the compounds are bound with dietary fiber and excreted from your body.<sup>2</sup>

## A detox program is not:



## Tips for success



### References:

1. Clew AC. Nutritional aspects of detoxification in clinical practice. *Altern Ther Health Med*. 2015;21(3):54-62.
2. *Textbook of Functional Medicine*. Institute for Functional Medicine. Gay Harbor, WA, 2006.
3. Hodges EE et al. Modulation of metabolic detoxification pathways using foods and food-derived components: A scientific review with clinical applications. *J Nutr Metab*. 2017;2017:1616069.

