

DRAFT

Mini-Review – Naturopathic Medicine Concepts

Detoxification

(Disclaimer: This mini-review is intended to explain this naturopathic concept to allopathic clinicians and not to present a detailed review of the evidence. Some key references are provided for the reader who desires more in-depth information. It is also not intended to serve as medical advice).

Theory

Many naturopathic physicians believe that diseases can arise from an excessive build-up of toxins in the body, or from an impaired ability by the organs of elimination to detoxify or remove these toxins. Toxins include substances that are ingested, inhaled, absorbed through the skin, or produced by the body during metabolic processes. Examples of such substances include heavy metals, pesticides, drugs, food additives, industrial chemicals, microorganisms, etc. Further, many naturopathic physicians believe that disease can be prevented and treated in part by promoting the body's ability to neutralize or eliminate disease causing toxins.

Practical Application

If a naturopathic physician believes that toxic build-up or reduced detoxification capacity by the body is one of the causative factors in a person's disease, they will likely recommend some type of detoxification regimen. Generally, toxic build-up is assessed clinically by history. Some types of toxicity, such as heavy metal toxicity, may be assessed by hair analysis or provocative urine testing. Therapeutic recommendations could include dietary recommendations to restrict certain foods or to include certain foods, or even to fast for a period of time. Nutritional supplementation may be recommended, such as anti-oxidant nutrients and other nutritional or botanical substances that increase the detoxification processes in the liver and other organs such as the cytochrome p450 and other enzymatic processes. Oral chelation supplementation with DMSA or other substances may be recommended for heavy metal toxicity. Probiotics, or supplementation with beneficial bacterial flora may be recommended for situations that are thought to be due to toxicity from abnormal gut flora. Supporting proper function of the organs of elimination is usually addressed by recommending dietary fiber for the intestines, sweating through exercise or sauna for the skin, plenty of water for the kidneys, and deep breathing for the lungs. Detoxification regimens can last varying amounts of time, from two weeks to many months depending on the situation and clinical response. While there is a large body of evidence supporting the concept that toxins can cause disease and that diet can modulate detoxification enzymes, there is little scientific evidence in the literature documenting the effects of therapeutic detoxification regimens on human health, disease, or disease prevention.

Key References

Bennett, P. Working up the toxic patient: practical intervention and treatment strategies. *Altern Ther Health Med.* 2007 Mar-Apr;13(2):S100-6.

Lampe, JW. Diet, genetic polymorphisms, detoxification, and health risks. *Altern Ther Health Med.* 2007 Mar-Apr;13(2):S108-11

Pizzorno, J. Total Wellness, Chapter 5, pages 87-161. *Decreasing Toxicity.* 1996, Prima Publishing.