

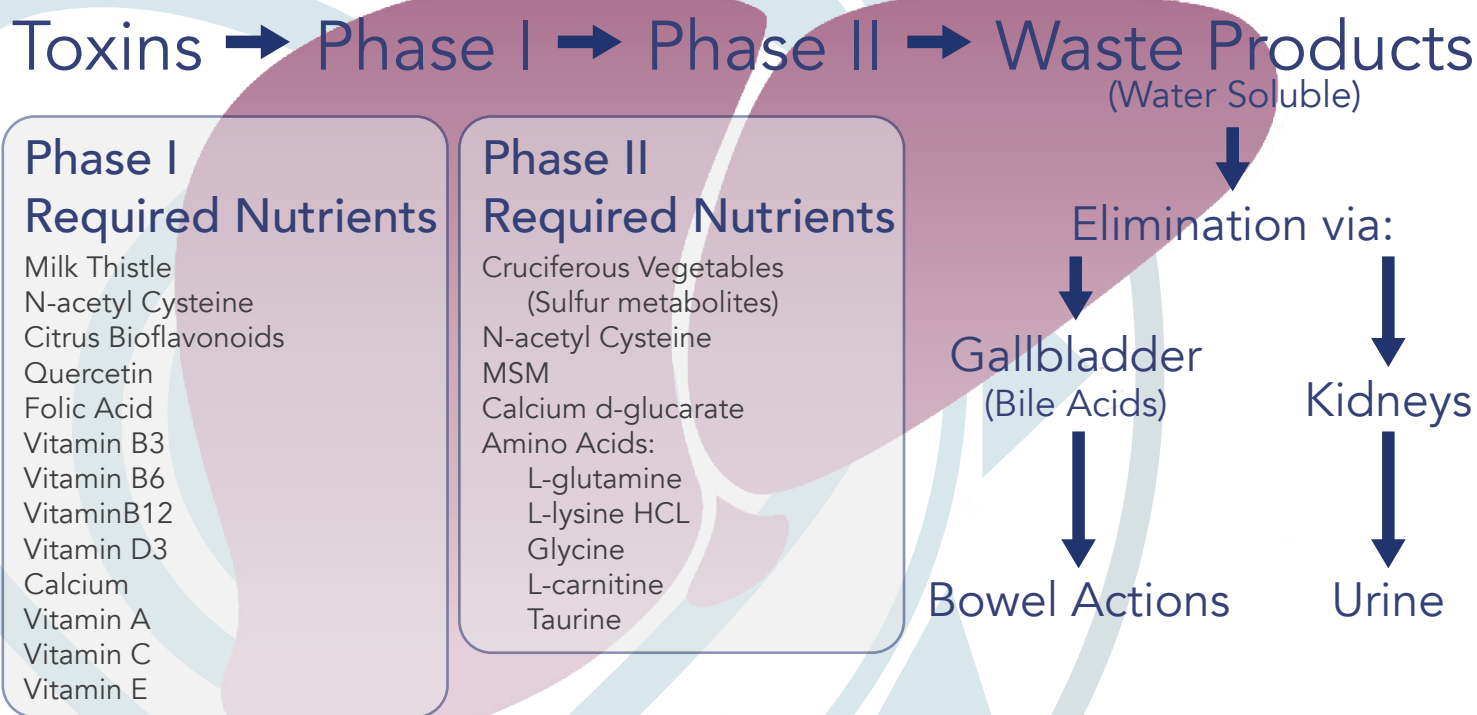


MENO CLINIC

Elimination & Detoxification

The liver has the most difficult job in the body-to protect us from toxins and work with the digestive tract to get rid of them. The liver has a Phase I and a Phase II reaction process to take toxic chemicals and make them soluble so the body can get rid of them. Toxins and all chemicals enter the liver and go through transformation in Phase I reactions to a reactive intermediary that is even more toxic and reactive. Then Phase II must quickly transform and convert to make them water to allow the body to excrete the toxin.

The digestive tract and the liver work in synchrony to be efficient at transforming and excreting toxins. When either one is dysfunctional then the system is not efficient and all aspects of health are vulnerable to toxicity. Liver disease puts a higher burden on the digestive tract and digestive dysfunction stresses the Phase I and II of the liver and we can become more toxic and sick. To work most efficiently, optimal health can be achieved by provided all of the nutrients to support Phase I and II of the liver.



Methylation: Helps to detoxify hormones, particularly helpful rid the body of toxic estrogen metabolites from prescription hormone therapy or natural hormones; increases production of the super antioxidant glutathione; reduces the toxic protein homocysteine linked to cancer, heart disease and dementia; and helps to repair DNA damage in cells.

Glucuronidation: Helps to detoxify medications to reduce toxic reactions; clears bilirubin and bile salts for ridding body of toxins; transforms food colorings/dyes, additives, preservatives and other environmental toxins to a form to excrete from body.

Glutathione production and conversion: Liver's main goal is to convert toxins into a form that is water soluble so the body can excrete through urine through production of glutathione as the main antioxidant; especially helpful to rid heavy metals mercury, lead and arsenic.

Acetylation: Helpful for excreting environmental toxins including petroleum products, tobacco, heavy metals.

Sulfation: combines toxins with a sulfur group to help inactivate toxicity and make soluble to excrete; supported by certain foods to help excrete toxins from the body including the cruciferous vegetables such as cauliflower, broccoli, kale, brussels sprouts contain sulfur to help speed this pathway to rid toxins.