

BIOCHEMICAL NEEDS IN CHEMICAL INJURY (Dr Ziem)

The body's biochemistry requires vital nutrients. DO NOT DISMISS THESE AS UNNECESSARY (or "expensive urine"). Adequate levels are essential for health and preventing chronic illness, degenerative and autoimmune diseases and cancer.

DIETARY TIPS: Focus on diet to maintain body nutrients

"Organic"/free range: higher nutrient levels (nutrient richer soil/food).

More fresh: try juicing (commercial processing reduces nutrients, increases additives).

Best to rotate foods: reduces food intolerances, improves nutrient completeness

Low glycemic: proper carbohydrate/protein ratio for dietary balance

Stabilizes blood sugar, helps adrenal healing, reduces candida

(See Blood Sugar Blues, Dr. Rockwell; www.dr.sallyrockwell.com)

Non-vegetarian often needed due to low protein

Digestive enzymes with meal if low chymotrypsin on GI panel

Chew food until liquid before swallowing to improve digestion

Proteins are needed to properly break down chemicals in the body. Certain protein "building blocks" or amino acids-such as glycine, glutamine, taurine, and cysteine are necessary for detoxifying processing chemicals. They bind to foreign chemicals (and many synthetic Rx) to make these substances water soluble so they pass out in urine.¹ Deficiencies of these protein building blocks can interfere with detoxification. Deficiencies can occur with increased exposure to certain chemicals,¹ and can be aggravated by problems with absorption (common in chemically ill patients), medications (ask your pharmacist, who can access a database on this), and vegetarian diets. Protein deficient vegetarians may wish to reconsider animal and seafood protein needs, especially if fatigue is present.

Mineral and vitamin nutrients, especially copper, iron, magnesium, zinc, manganese and vitamins C, E, B-complex, a natural mixture of bioflavonoids, and glutathione are needed in the body's processing of petrochemicals, and deficiency can reduce the body's ability to handle foreign chemicals.^{1, 2, 3}

Nutritional evaluation for nutrient deficiencies is recommended for toxic injury patients with persistent chronic fatigue or with poorer absorption of food (frequent loose stools, frequent undigested food in stools). Others at increased risk of nutritional deficiencies include: persons with significant recent exposure to petrochemicals, those with a poorly balanced diet, those lacking adequate animal (or seafood) protein, and those with a long history of frequent consumption of processed or "junk" food. Much commercially grown animal protein such as dairy, eggs, beef, chicken, pork, mutton, etc. can accumulate antibiotics, synthetic hormones, and pesticides in the fat (often marbled in too well to effectively remove), so try to buy organically raised and range-fed (or free-range) meat whenever possible. Food grown without pesticides and using natural fertilizer often has much higher nutrient and mineral content, and free range/wild game has much higher essential protein (amino acid) content.

Some textbook References:

MC Linder, Nutritional Biochemistry and Metabolism

IFM: Clinical Nutrition: A Functional Approach (2 Ed)

B Levin, Environmental Nutrition

RS Lord and JA Bralley, Laboratory Evaluation in Molecular Medicine

CD Klassen, Casarette and Doull's Toxicology

RK Murray, et al, Harpers Biochemistry

¹ M Linder, Editor Nutritional Biochemistry and Metabolism. Appleton and Lance.

² B Levin, Editor, Environmental Nutrition: Understanding the Link Between Environment, Food Quality and Disease, HingePin, Vashon Island, WA 1999.

³ H Kawano, Current Drug Targets – Cardiovascular and Hematological Disorders, 4: 23-33, 3, 2004.