

Metabolic Detoxification Questionnaire

Part 1: Symptoms

Name: _____ Date: _____

Rate each of the following symptoms based on the last week using the point scale below:

0 Never or rarely have the symptom

1 Occasionally have it, effect is not severe

2 Occasionally have it, effect is severe

3 Frequently have it, effect is not severe

4 Frequently have it, effect is severe

Digestive Tract

Nausea, vomiting	0 1 2 3 4
Diarrhea	0 1 2 3 4
Constipation	0 1 2 3 4
Bloated feeling	0 1 2 3 4
Heartburn	0 1 2 3 4
Intestinal, stomach pain	0 1 2 3 4

Digestive Total:

Joints / Muscles

Pain or aches in joints	0 1 2 3 4
Arthritis, joint swelling	0 1 2 3 4
Stiff or limitation of movement	0 1 2 3 4
Pain or aches in muscles	0 1 2 3 4
Feeling of weakness or tired	0 1 2 3 4

Joints / Muscles Total:

Emotional

Mood swings	0 1 2 3 4
Anxiety, fear, nervousness	0 1 2 3 4
Anger, irritability, aggression	0 1 2 3 4
Depression	0 1 2 3 4

Emotional Total:

Weight / Food

Binge eating, drinking	0 1 2 3 4
Craving certain foods	0 1 2 3 4
Excessive weight	0 1 2 3 4
Compulsive eating, food addictions	0 1 2 3 4
Water retention	0 1 2 3 4
Underweight	0 1 2 3 4

Weight / Food Total:

Energy / Sleep

Fatigue, sluggishness	0 1 2 3 4
Apathy, lethargy	0 1 2 3 4
Hyperactivity	0 1 2 3 4
Restlessness, achiness	0 1 2 3 4
Sleep disturbances	0 1 2 3 4

Energy / Sleep Total:

Skin

Acne	0 1 2 3 4
Hives, rashes, dry skin, redness	0 1 2 3 4
Hair loss	0 1 2 3 4
Flushing, hot flashes	0 1 2 3 4
Excessive sweating	0 1 2 3 4

Skin Total:

Heart

Irregular or skipped heartbeat	0 1 2 3 4
Rapid or pounding heartbeat	0 1 2 3 4
Chest pain	0 1 2 3 4

Heart Total:

Other

Frequent illness	0 1 2 3 4
Frequent or urgent urination	0 1 2 3 4
Genital itch or discharge	0 1 2 3 4

Other Total:

Respiratory

Chest congestion	0 1 2 3 4
Asthma, bronchitis	0 1 2 3 4
Shortness of breath	0 1 2 3 4
Difficulty breathing	0 1 2 3 4

Respiratory Total:

Eyes

Watery or itchy eyes	0 1 2 3 4
Swollen, red, or sticky eyelids	0 1 2 3 4
Bags or dark circles under eyes	0 1 2 3 4
Blurred or restricted vision	0 1 2 3 4

Eyes Total:

Nose

Stuffy nose	0 1 2 3 4
Sinus problems or dripping nose	0 1 2 3 4
Hay fever	0 1 2 3 4
Sneezing attacks	0 1 2 3 4
Excessive mucus	0 1 2 3 4

Nose Total:

Mouth / Throat

Frequent, consistent coughing	0 1 2 3 4
Gagging, need to clear throat	0 1 2 3 4
Sore throat, hoarse, loss of voice	0 1 2 3 4
Swollen or discolored tongue, gums, or lips	0 1 2 3 4
Canker sores, other mouth sores	0 1 2 3 4

Mouth / Throat Total:

Ears

Itchy ears	0 1 2 3 4
Earaches, ear infections	0 1 2 3 4
Drainage from ear, waxy buildup	0 1 2 3 4
Ringing in ears, hearing loss	0 1 2 3 4

Ears Total:

Head

Headaches	0 1 2 3 4
Faintness or lightheadedness	0 1 2 3 4
Dizziness	0 1 2 3 4

Head Total:

Cognitive

Poor memory, recall	0 1 2 3 4
Confusion, poor comprehension	0 1 2 3 4
Poor concentration	0 1 2 3 4
Poor physical coordination	0 1 2 3 4
Difficulty in making decisions	0 1 2 3 4
Stuttering, stammering	0 1 2 3 4
Slurred speech	0 1 2 3 4
Learning disabilities	0 1 2 3 4

Cognitive Total:

Grand Total _____

For Practitioner Use Only:

Urinary pH _____

Metabolic Detoxification Questionnaire

Part 2: Xenobiotic Tolerability Test (XTT)

1. Are you presently using prescription drugs?

☐ Yes (1 pt.) ☐ No (0 pt.)

If yes, how many are you currently taking? ____ (1 pt. each)

2. Are you presently taking one or more of the following over-the-counter drugs?

☐ Cimetidine (2 pts.) ☐ Acetaminophen (2 pts.) ☐ Estradiol (2 pts.)

3. If you have used or currently use prescription drugs, which of the following scenarios best represents your response to them:

- ☐ Experience side effects; drug(s) is (are) efficacious at lowered dose(s) (3 pts.)
☐ Experience side effects; drug(s) is (are) efficacious at usual dose(s) (2 pts.)
☐ Experience no side effects; drug(s) is (are) usually not efficacious (2 pts.)
☐ Experience no side effects; drug(s) is (are) usually efficacious (0 pt.)

4. Do you currently (within the last 6 months) or have you regularly used tobacco products?

☐ Yes (2 pts.) ☐ No (0 pt.)

5. Do you have strong negative reactions to caffeine or caffeine-containing products?

☐ Yes (1 pt.) ☐ No (0 pt.) ☐ Don't know (0 pt.)

6. Do you commonly experience "brain fog," fatigue, or drowsiness?

☐ Yes (1 pt.) ☐ No (0 pt.)

7. Do you develop symptoms with exposure to fragrances, exhaust fumes, or strong odors?

☐ Yes (1 pt.) ☐ No (0 pt.) ☐ Don't know (0 pt.)

8. Do you feel ill after you consume even small amounts of alcohol?

☐ Yes (1 pt.) ☐ No (0 pt.) ☐ Don't know (0 pt.)

10. Do you have a personal history of:

- ☐ Environmental and/or chemical sensitivities (5 pts.)
☐ Chronic fatigue syndrome (5 pts.)
☐ Multiple chemical sensitivity (5 pts.)
☐ Fibromyalgia (3 pts.)
☐ Parkinson's type symptoms (3 pts.)
☐ Alcohol or chemical dependence (2 pts.)
☐ Asthma (1 pt.)

11. Do you have a history of significant exposure to harmful chemicals such as herbicides, insecticides, pesticides, or organic solvents?

☐ Yes (1 pt.) ☐ No (0 pt.)

12. Do you have an adverse or allergic reaction when you consume sulfite-containing foods such as wine, dried fruit, salad bar vegetables, etc.?

☐ Yes (1 pt.) ☐ No (0 pt.) ☐ Don't know (0 pt.)

Total _____

Part 3: Alkalizing Assessment

1. Do you have a history of or currently have kidney dysfunction?

☐ Yes (1 pt.) ☐ No (0 pt.)

2. Have you ever been diagnosed with hyperkalemia?

☐ Yes (1 pt.) ☐ No (0 pt.)

3. Are you currently taking diuretics or blood pressure medication?

☐ Yes (1 pt.) ☐ No (0 pt.)

Total _____

Overall Score Tabulation

For Practitioner Use Only:

Part 1: Symptoms Grand Total _____ (High >50; moderate 15-49; low <14)

Part 2: XTT Total _____ (High >10; moderate 5-9; low <4)

Part 3: Alkalizing Assessment Total _____ (High ≥ 1)

Urinary pH _____

Notes:

- Patients with high symptoms but low XTT may be exhibiting reactions that are not related to toxic load. Other mechanisms should be considered, such as inflammation/immune/allergy, gastrointestinal dysfunction, oxidative stress, hormonal/neurotransmitter dysfunction, nutritional depletion, and/or mind body. Individualize support with specific medical foods, diet, and/or nutraceuticals.
- Recommend non-alkalizing nutrients if patient answers "yes" to any questions in the Alkalizing Assessment.

Disclaimer: This questionnaire is for informational purposes only. It is not meant to diagnose or treat any condition or illness. All medical symptoms should be addressed by a qualified medical professional.

FirstLine Therapy Clear Change® Program

Safe and Effective Metabolic Detoxification Program

In the United States, tens of thousands of chemicals—many of which are toxic—are used by industries to make products such as automobiles, clothing, and pharmaceuticals.¹ In 2012 alone, the Environmental Protection Agency (EPA) Toxin Release Inventory (TRI) reported that 3.63 billion pounds of chemicals were disposed of or released to air, water, or land.¹ The sheer volume to which humans are exposed to these toxicants and biological toxins on a daily basis can overburden the body's natural metabolic detoxification capacity. Long-term exposure to toxins is associated with a number of challenges, such as fatigue, waking up feeling unrefreshed, difficulty concentrating, mood disturbances, and gastrointestinal disturbances.*²⁻⁴

Research has shown that certain nutritional ingredients including xanthohumol, broccoli, isomalto-oligosaccharides, green tea catechins, ellagic acid, N-acetyl-L-cysteine, L-ornithine, and zinc can support the body's detoxification function and help facilitate the removal of undesirable compounds from the body.*⁵⁻¹⁴

The Clear Change Program—which includes these targeted ingredients—is designed to enhance the body's natural metabolic detoxification process while providing adequate fuel for both cleansing and other daily activities.* Metagenics offers value-priced bundles for 10-day and 28-day programs that include a low-allergy-potential menu plan, targeted nutritional support, moderate exercise recommendations, and tips for stress management.

Why Clear Change?

- Choice of UltraClear Plus®, UltraClear Plus® pH, or UltraClear® RENEW nutritional powder mix for metabolic detoxification support*
- All UltraClear formulas deliver advanced, specialized nutritional support for Phase I and II detoxification*
- UltraClear RENEW and UltraClear Plus pH also benefit Phase III detoxification by nutritionally supporting alkalization and excretion*
- All UltraClear formulas are designed to complement a diet that is strategically structured to reduce the impact of processed foods and excess simple sugar by providing an array of nutrients that support the 3 phases of detoxification*



For complete supplement facts information,
visit www.metagenics.com

- AdvaClear® dietary supplement supports balanced metabolic detoxification activity and provides antioxidant protection*
- Free blender cup, comprehensive program guide, and program diary
- Online support options include a free webinar, additional recipes, FAQs, and daily motivational

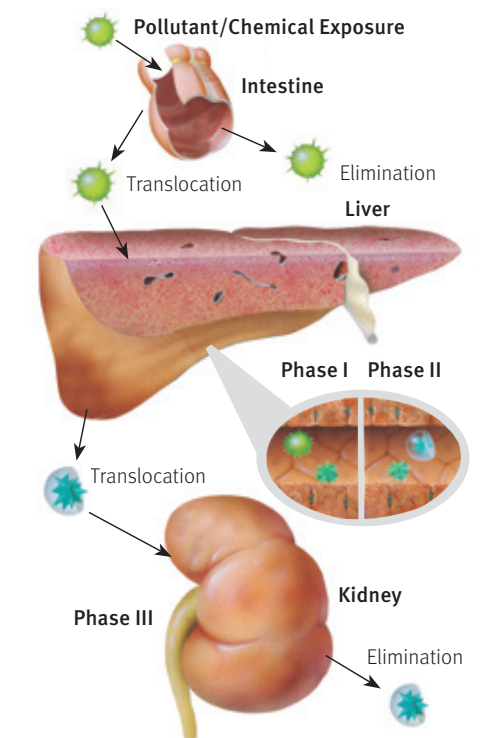


Figure 1. Three Phases of Metabolic Detoxification

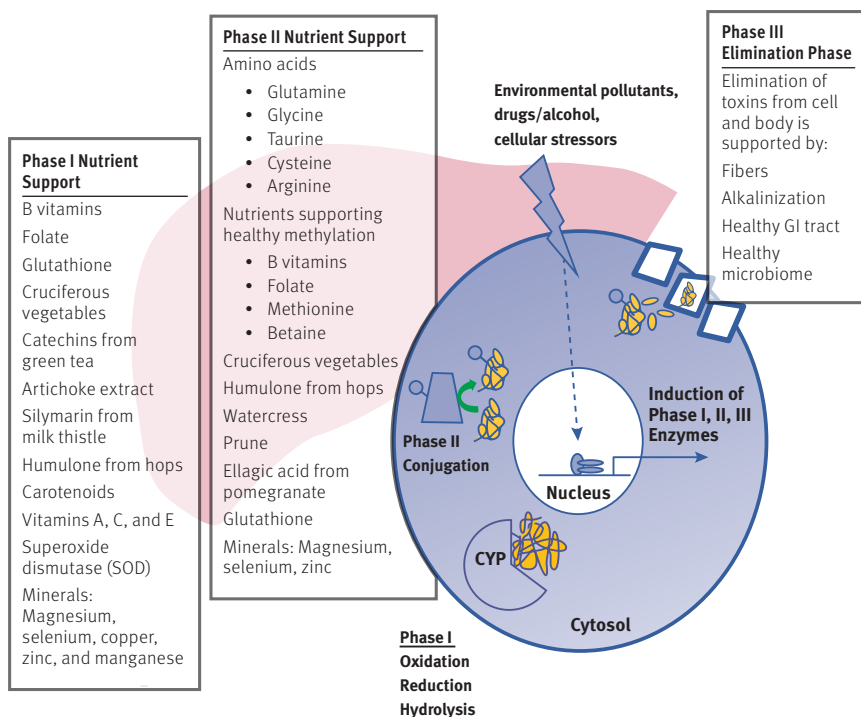


Figure 2. Phases of Detoxification and Associated Nutrients and Foods That Support the Process

Scientific Rationale

Metabolic detoxification consists of 3 main phases (Figure 1):

- Phase I (functionalization)—Cytochrome P450 enzymes in the liver break down harmful substances, generating highly reactive molecules and free radicals
- Phase II (conjugation)—Large molecules are conjugated with newly modified substances, producing more water-soluble, less harmful substances
- Phase III (elimination phase)—Proteins transporters export conjugated substances from the cell for eventual elimination. Toxins are mainly eliminated from the body via urine, feces, and sweat

References:

1. United States Environmental Protection Agency. 2012 Toxic Release Inventory National Analysis Overview. http://www.epa.gov/sites/production/files/2014-01/documents/complete_2012_tri_na_overview_document.pdf. Accessed January 22, 2016.
2. Kamel F and Hoppin JA. *Environ Health Perspect*. 2004;112(9):950-958.
3. Winneke G. Developmental aspects of environmental neurotoxicology: lessons from lead and polychlorinated biphenyls. *J Neurol Sci*. 2011;308(1-2):9-15.
4. Mapesa JO, et al. An exposome perspective to environmental enteric dysfunction. *Environ Health Perspect*. 2015; <http://dx.doi.org/10.1289/ehp.1510459>.
5. Krajka-Kuzniak V, Paluszczak J, Baer-Dubowska W. Xanthohumol induces phase II enzymes via Nrf2 in human hepatocytes in vitro. *Toxicology in Vitro*. 27;2013:149-156.
6. Atwell LL, Hsu A, Wong CP. Absorption and chemopreventive targets of sulforaphane in humans following consumption of broccoli sprouts or a myrosinase-treated broccoli sprout extract. *Mol Nutr Food Res*. 2015;59(3):424-433.
7. Cramer JM, Teran-Garcia M, Jeffery EH. Enhancing sulforaphane absorption and excretion in healthy men through the combined consumption of fresh broccoli sprouts and a glucoraphanin-rich powder. *Br J Nutr*. 2012;107:1333-1338.
8. Chen HL, Lu Y, Lin J, Ko L. Effects of isomaltoligosaccharides on bowel functions and indicators of nutritional status in constipated elderly men. *J Am Coll Nutr*. 2001;20(1):44-49.
9. Hodges RE, Minich DM. Modulation of metabolic detoxification pathways using foods and food-derived components: a scientific review with clinical application. *J Nutr Metabol*. 2015;2015:1-23.
10. Ahmed S, Rahman A, Saleem M, Athar M, Sultana S. Ellagic acid ameliorates nickel induced biochemical alterations: diminution of oxidative stress. *Hum Exp Toxicol*. 1999;18:691-698.
11. Xiong Y, Peterson PL, Lee CP. Effect of N-acetylcysteine on mitochondrial functions following traumatic brain injury in rats. *J Neurotrauma*. 1999;11:1067-1082.
12. Demura S, Yamada T, Yamaji S, Komatsu M, Morishita K. The effect of L-ornithine hydrochloride ingestion on performance during incremental exhaustive ergometer bicycle exercise and ammonia metabolism during and after exercise. *Eur J Clin Nutr*. 2010;64:1166-1171.
13. Batra N, Nehru B, Bansal MP. The effect of zinc supplementation on the effects of lead on the rat testis. *Reprod Toxicol*. 1998;12(5):535-540.
14. Cao J, Cousins RJ. Metallothionein mRNA in monocytes and peripheral blood mononuclear cells and in cells from dried blood spots increases after zinc supplementation of men. *J Nutr*. 2000;130:2180-2187.
15. Sutton P, et al. Toxic environmental chemicals: the role of reproductive health professionals in preventing harmful exposures. *Am J Obstet Gynecol*. 2012;207(3):164-173.

* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

MET2232 040616 ©2016 Metagenics, Inc. All Rights Reserved.



Talk to your healthcare provider today
about **FirstLine Therapy Clear Change Program**.

www.clearchangeprogram.com