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new

4ENVIRO

One box to address the effects on environmental pollution

Exposure to environmental toxicants is ongoing = accumulation and amplification toxicants affect **metabolism, gut health & immunity**

Landscape of environmental chemicals

- Chemicals are innocent until proven guilty.
- No requirements to prove safety before coming to the market. Slow or inexistent regulations + many Agencies. The different Agencies in charge are not communicating.

Obesogens

Chemicals that directly or indirectly increase obesity through disruption of metabolic, hormonal or development processes: pesticides, flame retardants, bisphenols, PFAS, phthalates, arsenic, dioxins.

How to guard against environmental toxicants?

1 _ **Lifestyle changes** to lower the burden of toxicity
2 _ **Dietary management** and **nutritional support** are strongly advised

Dietary management & nutritional support

PHASE 1
Biotransformation

Cytochrome enzymes activate toxicants. Toxicants are prepared for conjugation in phase 2.

→ **Vit B Cofactors** induce cytochrome enzymes phase 1

PHASE 2
Conjugation

Activated toxicants are conjugated with endogenous molecules to form water-soluble compounds.
Phase 2 enzymes are in charge, toxins are neutralized and prepared for elimination.

→ **Broccoraphanin** - as a sulforaphane precursor - empowers phase 1 and phase 2

→ **EGCG green tea extract & Trans-Resveratrol,** both induce specific conjugation enzymes: Glutathione-S-Transferase & UDP-glucuronosyltransferase (UGT)

PHASE 3
Elimination

Active elimination of conjugated toxicants via bile, stool and urine.

+ Probiotics lower intestinal absorption of toxicants

Oishi, Kenji, et al. "Effect of probiotics, Bifidobacterium breve and Lactobacillus casei, on bisphenol A exposure in rats." Bioscience, biotechnology, and biochemistry 72.6 (2008): 1409-1415.

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4ENVIRO

Prepacked sachets containing 4 pills for daily administration to protect from environmental toxicity.

Product sheet and references on the following pages.

Complementary recommendations

Butyflam®

Research based delivery of bio-active Butyrate

› Product sheet and references on page 8 and 9

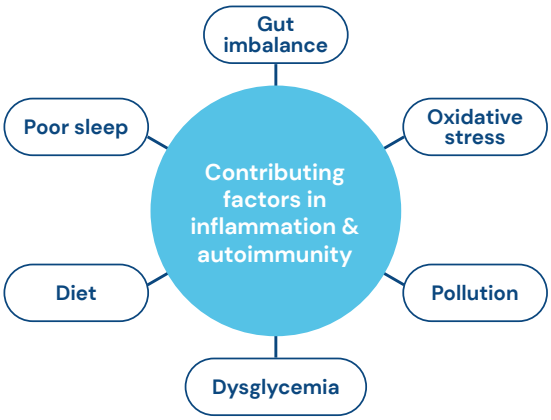
Tri-Fortify®

Liposomal delivery has been used to enhance the GSH status

› Product sheet and published research on page 10 and 11

Butyflam & autoimmunity

- Only **30%** of autoimmunity is **genetic**.
- **Gut dysbiosis & pollution** are strongly linked.
- **Halogenated chemicals** alter Iodine uptake & directly interfere with Thyroid function.
- **Faecalibacterium prausnitzii colon bacteria** are most affected by environmental pollution.
- Butyflam® **turns on T reg cells** to support self-tolerance & address auto-immunity.



Torres-Sánchez, Alfonso, et al. "Exploring Next Generation Probiotics for Metabolic and Microbiota Dysbiosis Linked to Xenobiotic Exposure: Holistic Approach." International Journal of Molecular Sciences 23.21 (2022): 12917.

4Enviro

The majority of environmental toxicants are lipophilic, they accumulate in bone matrix and adipose tissue. 4Enviro strongly empowers our protection + our detoxification system:

1_Broccoraphanin activates nrf2 and our enzymes responsible for detoxification phase II

2_Cofactor B Complex are the bio-activated enhancers of our Cytochrome enzymes in phase I

3_AO Defense induces both enzymes Glutathione-S-Transferase and UDP-Glucuronyl-Transferase, responsible for conjugation in phase II

4_Probiotic strongly reduces intestinal absorption of toxicants

indication	Protection against environmental toxicity
dosage	1 sachet 30 min. before breakfast + 1 sachet during breakfast
packaging	4 pills in prepacked sachets for daily administration One month per box

composition
(amount per 2 sachets)

Broccoraphanin	300 mg
Co-Factor B Complex:	
Vitamin B2 (as riboflavin)	200 mg
Vitamin B3 (as nicotinamide)	100 mg
Vitamin B5 (as D-Calcium pantothenate)	92 mg
Vitamin B1 (as thiamin HCl)	63 mg
Pyridoxal-5-phosphate (as coenzym B6)	20 mg
Biotine	5 mg
MTHF (Bio-active Folate)	1,62 mg
AO Defense:	
Japanese knotweed dry extract (Polygonum cuspidatum) **(Natural Trans-Resveratrol)**	210 mg
Green tea extract (Camillia sinensis) (50% EGCG)	200 mg
Grape skin extract (Vitis vinifera)	140 mg
Grape seed dry extract (Vitis vinifera)	100 mg
Probiotic: Lactobacillus acidophilus DDS-1, L-Rhamnosus, L-Rhamnosus (type B, Bifidus), Steptococcus Lactis, Bifidobacterium Longum, Bifidobacterium Bifidum, Steptococcus Thermophilus	550 mg

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Butyflam Coated

Butyrate is a short-chain fatty acid produced by the intestinal bacteria through fermentation of non-digestible fibers. Butyflam Coated delivers bio-available levels of butyrate in our intestines to guarantee immune tolerance and avoid excessive inflammation or auto-immune reactions.

indication	Neuroinflammation Immune modulating (T reg + IL-10 anti-inflammation) Remodeling intestinal barrier function
dosage	3 x 2 caps per day
packaging	180 coated caps per container
composition (amount per 6 caps)	Butyrate - 3000 mg

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Butyflam Coated

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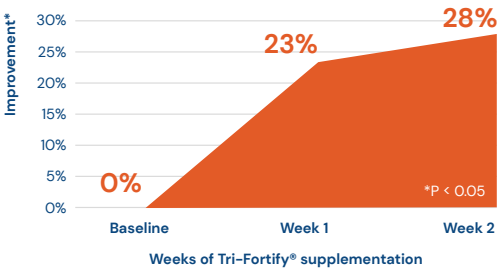
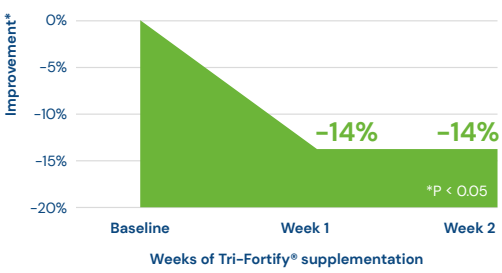
Tri-Fortify Watermelon® or Orange®

indication	Detoxification with glutathione in high bioavalable formulation Powerful antioxidant on tissue level and brain level Natural Killer Cell support
dosage	1 teaspoon (1 pack) per day, away from food
packaging	236 ml per tube or 20 packs per box
composition (based on 1 teaspoon = 5 cc or 1 pack)	Glutathione Liposomal 450 mg Vitamin C 50 mg

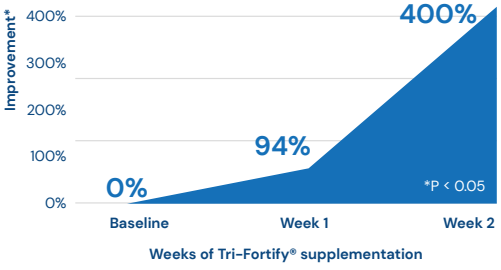
Glutathione levels
Increase in red blood cell levels (Erythrocytes)



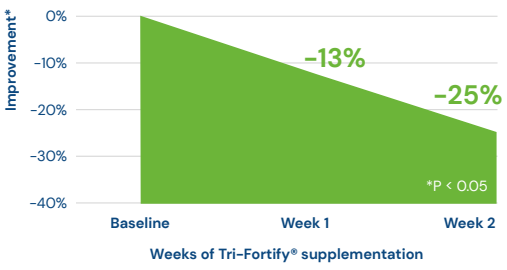
Oxidative stress markers
Oxidized / Reduced GSH



Immune function
Natural Killer Cell activity



Lipid Peroxidation
(Reduced Cellular Membrane Oxidation)



Published research : Sinha, R., Sinha, I., Calcagnotto, A., Trushin, N. Oral supplementation with liposomal glutathione elevates body stores of glutathione and markers of immune function. Eur J Clin Nutr. 2018 Jan;72(1):105–111.

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Researched Nutritionals® solutions for life

Tri-Fortify Watermelon® or Orange®

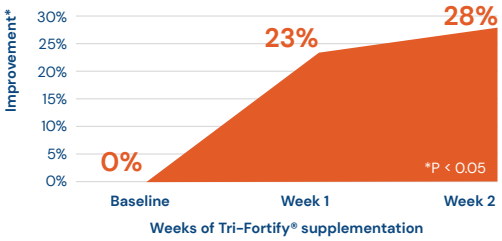
Research on liposomal glutathione

Clinical research presented at the 2015 ILADS medical conference demonstrated **red blood cell absorption, increased natural killer cell function & reduced oxidative stress.**

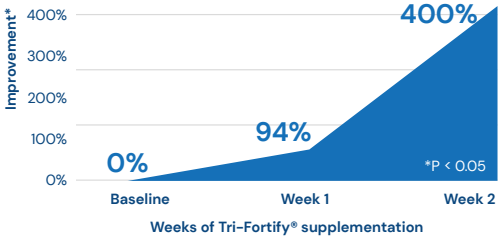
This study, conducted at Penn State University, measured the glutathione. The product is formulated to promote healthy intracellular glutathione levels and natural killer cell function.

Healthy patients with glutathione levels at the low end of the normal range were included in the study. The patients were divided into two groups, one taking one serving (450 mg) per day and the other taking two servings (900 mg) per day. Both groups performed fairly close to one another so the results shown below are the combined impact, with a p-value of <0.05.

Glutathione levels
Increase in red blood cell levels (Erythrocytes)



Immune function
Natural Killer Cell activity

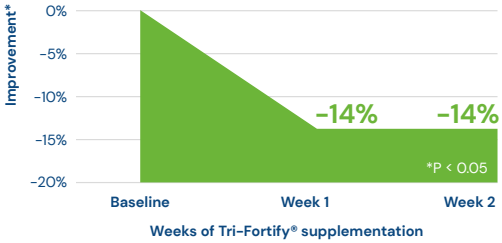


Research results

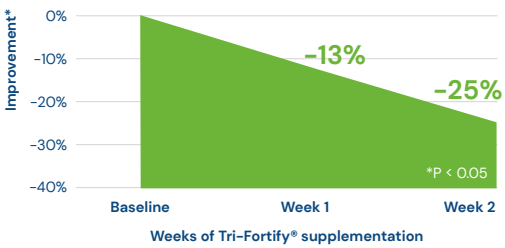
After two weeks of daily oral liposomal glutathione supplementation:

- **Red blood cell levels** (erythrocytes) increased 28% over the baseline.
- **Natural Killer Cell function** increased by 400% over the baseline.
- **Oxidative stress**, (as measured by lipid peroxidation) decreased by 25%

Oxidative stress markers
Oxidized / Reduced GSH



Lipid Peroxidation
(Reduced Cellular Membrane Oxidation)



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