

CORE

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Revitalizing Healthy Liver Function

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The Pillars of GI Health

Digestion

Elimination

Microflora Balance

Gut Integrity

What Are Toxins?

- Any substance that has harmful effects on the body
- When toxin levels are in excess of our body's capacity to remove them, toxins build up and are stored until they are removed
- Toxins are “**fat soluble**” – they are attracted to the fatty portion of cells throughout the body

Where Do Toxins Come From?

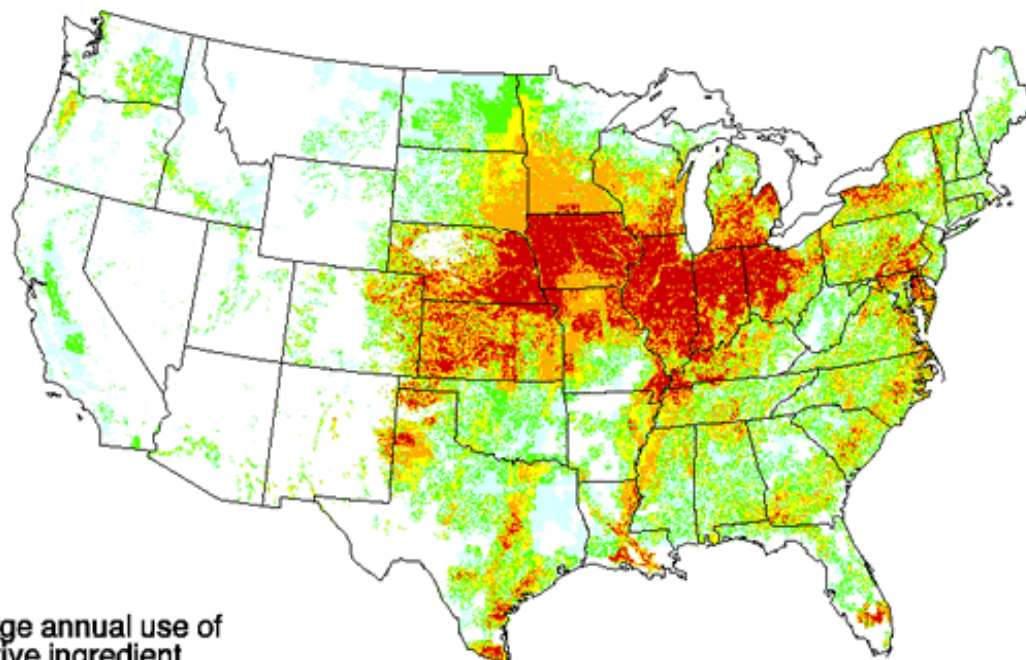
- Environmental Toxins
 - Polluted air from factories
 - Auto exhaust
 - Solvents (paint and cleaning products)
 - Heavy metals
 - Pesticides, herbicides, insecticides
 - Radiation
 - Inhalents

Chronic Exposure to the Herbicide, Atrazine, Causes Mitochondrial Dysfunction and Insulin Resistance

There is an apparent overlap between areas in the USA where the herbicide, atrazine (ATZ), is heavily used and obesity-prevalence maps of people with a BMI over 30. Given that herbicides act on photosystem II of the thylakoid membrane of chloroplasts, which have a functional structure similar to mitochondria, we investigated whether chronic exposure to low concentrations of ATZ might cause obesity or insulin resistance by damaging mitochondrial function. Sprague-Dawley rats (n = 48) were treated for 5 months with low concentrations (30 or 300 $\mu\text{g kg}^{-1} \text{ day}^{-1}$) of ATZ provided in drinking water. One group of animals was fed a regular diet for the entire period, and another group of animals was fed a high-fat diet (40% fat) for 2 months after 3 months of regular diet. Various parameters of insulin resistance were measured. Morphology and functional activities of mitochondria were evaluated in tissues of ATZ-exposed animals and in isolated mitochondria. Chronic administration of ATZ decreased basal metabolic rate, and increased body weight, intra-abdominal fat and insulin resistance without changing food intake or physical activity level. A high-fat diet further exacerbated insulin resistance and obesity. Mitochondria in skeletal muscle and liver of ATZ-treated rats were swollen with disrupted cristae. ATZ blocked the activities of oxidative phosphorylation complexes I and III, resulting in decreased oxygen consumption. It also suppressed the insulin-mediated phosphorylation of Akt. These results suggest that long-term exposure to the herbicide ATZ might contribute to the development of insulin resistance and obesity, particularly where a high-fat diet is prevalent.

ATRAZINE - herbicide

1997 estimated annual agricultural use



Average annual use of active ingredient (pounds per square mile of agricultural land in county)

- no estimated use
- 0.001 to 0.358
- 0.359 to 2.151
- 2.152 to 9.855
- 9.856 to 32.77
- ≥ 32.771

Crops	Total pounds applied	Percent national use
corn	62,381,038	84.00
sorghum	6,750,038	9.09
summer fallow	2,539,169	3.42
sugarcane	2,203,421	2.97
sweet corn	340,452	0.46
sod harvested	30,214	0.04
other hay	13,224	0.02
seed crops	5,833	0.01



Where Do Toxins Come From?

- Lifestyle Toxins
 - Nicotine
 - Alcohol
 - Caffeine
 - Recreational drugs
 - Prescription drugs
 - Over-the-counter drugs
 - Artificial food additives, colorings and preservatives
 - Meats that contain hormones and antibiotics
 - Refined foods and sugars
 - Dietary choices (fast foods, fried foods)

THE DIRTY DOZEN

1. Apples
2. Celery
3. Strawberries
4. Peaches
5. Spinach
6. Nectarines
7. Grapes
8. Sweet Bell Peppers
9. Potatoes
10. Blueberries
11. Lettuce
12. Kale

Where Do Toxins Come From?

- Internal Toxins
 - Bacterial, yeast, fungal overgrowth
 - By-products of metabolic reactions (such as carbon dioxide, ammonia, hormones)
 - Undigested food
 - Stress
 - Unresolved trauma or abuse (experienced as a child or as an adult)
 - Unhappy relationships (with a relative, a spouse, a “significant other,” a boss, a co-worker, a neighbor, etc.)

ALL HUMANS HAVE CHEMICALS IN STORAGE

U.S. EPA biopsy studies of chemicals stored in the fat of human beings show 100% of people studied had dioxins, PCB's, dichlorobenzene, and xylene.

- Dioxins and PCB's are among the most potent causes of cancers known to man.
- Columbia University School of Public Health reports that 95% of cancer is caused by diet and environment.
- Other EPA studies of hundreds of Americans show 100% of human fat samples contain styrene, a known carcinogen.

ARE DIOXINS, PCB'S AND STYRENE ONLY FOUND IN EXOTIC OCCUPATIONS?

- Dioxins and PCB's outgas from carbonless copy paper, plastics, inks, paints, and furnishings, and construction glues.
- Xylene outgases from plastics, carpeting, furnishings, construction materials, industrial and traffic exhaust and more.
- Styrene outgases from our computers, and many everyday plastics that hold our juices, water, sodas, ketchup, peanut butter, milk, and even baby formula.

WE INHALE OVER 500 ENVIRONMENTAL CHEMICALS DAILY AT HOME

- The Wallace study, a US government EPA study, analyzed the exhaled breath of urban residents of New Jersey. In this breath analysis they found a scary array of chemicals that are notorious for forcing free radicals to create disease.
- Just wearing a newly dry cleaned suit can give you measurable levels of trichloroethylene in your blood stream.

Why Detox?

- CDC's report in 2006 found that the average American has 116 of 148 synthetic compounds in the body
 - Compounds tested included dioxin, polycyclic hydrocarbons and organochlorine pesticides
 - Further studies revealed that these same substances were also found in human milk, placenta, umbilical cord blood, and the blood and body fat of newborns
 - The average umbilical cord blood contains 217 neurotoxins, 208 are known to cause birth defects
 - This is evident of how burdened our detoxification capacities have become resulting in storage of toxins.

Why Detox?

- We ingest over 30-50 tons of food in a lifetime.
- Most patients that have GI illnesses also have increased levels of incoming toxins
- GI illness may not allow them to properly absorb nutrients, which are used in liver detoxification pathways
- Patients develop symptoms different from the “underlying cause” or “true cause” because toxins get built up in various tissues and are not eliminated
- Least expensive and invasive method that will be used as a first-line approach to treat GI illness

Roles of the Liver

- Filters blood
- Stores glucose for energy
- Breaks down steroid hormones
- Produces/secretetes bile
- Primary organ of detoxification in the body

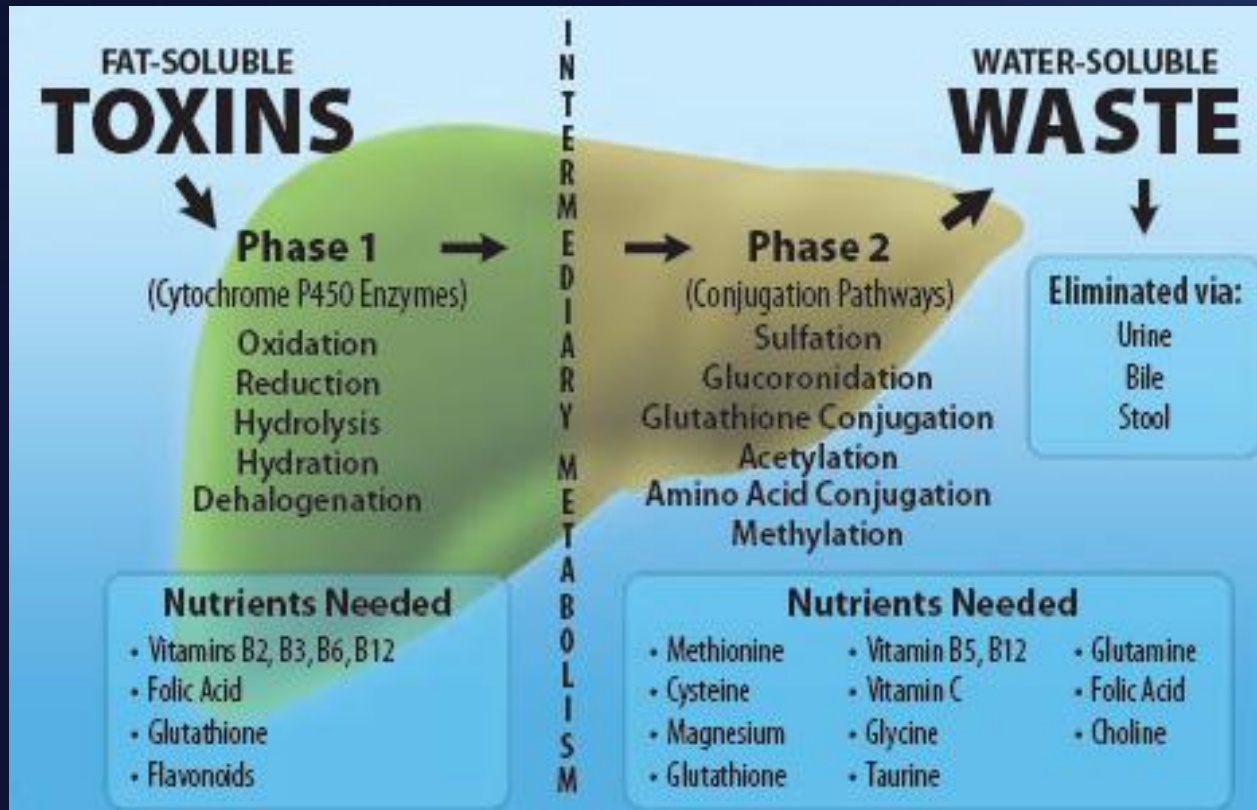
Liver Detox Pathways

- The liver eliminates toxins through a 2-step enzymatic process: Phase I and Phase II
- Phase I
 - Cytochrome P450 (a series of enzymes) chemically changes fat-soluble toxins into a more toxic substance called an “intermediary metabolite”
 - This “intermediate metabolite” is often more toxic than the original fat-soluble toxin, hence the need for Phase II.

Liver Detox Pathways

- Phase II
 - Conjugation (attachment) of specific molecules onto the “**intermediary metabolite**” make it non-toxic and water-soluble so it can be excreted through the urine or stool
 - (six conjugation pathways- see next slide)

Liver Detox Pathways



DETOXIFICATION DEPLETES NUTRIENTS

Studies by Dr. John Laseter of AccuChem Laboratories show that when we inhale a particular chemical, 10% could go to bone, 15% could go to the liver, 20% could go to the brain, etc. For the next person the percentages could be totally different.

- **Individual detoxification capability determines how much of each chemical is eliminated and how much is stored and where.**
- **If we use up too many detox nutrients, without replenishing, we leave ourselves vulnerable to the next environmental chemical that comes along.**

TYPE OF DRUG	NAME BRAND EXAMPLES	NUTRIENTS DEPLETED
ANTACIDS	Pepcid, Tagamet, Zantac	Vitamin B12, Folic Acid, Vitamin D, Calcium, Iron, Zinc
	Prevacid, Prilosec	Vitamin B12
ANTIBIOTICS	General Aminoglycosides (gentomycin, neomycin, streptomycin), Cephalosporins, Penicillins	B vitamins, Vitamin K, Friendly Beneficial Intestinal bacteria
	Tetracyclines	Calcium, Zinc, Magnesium, Iron, Vitamin B6, Zinc
ANTI-DIABETIC DRUGS	Micronase, Tolinase	Coenzyme Q10
	Glucophage	Coenzyme Q10, Vitamin B12, Folic Acid
ANTI-DEPRESSANTS	Adapin, Aventyl, Elavil, Tofranil, Pamelor, Sinequan, Norpramin	Vitamin B12, Coenzyme Q10
ANTI-INFLAMMATORIES	Aspirin & Salicylates	Vitamin C, Folic Acid, Iron, Potassium
	Advil, Aleve, Anaprox, Dolobid, Feldene, Lodine, Motrin, Naprosyn, Orudis, Relafen	Folic Acid
	Betamethasone, Cortisone, Dexamethasone, Hydrocortisone, Methylprednisolone, Prednisone	Vitamin C, D, Folic Acid, Calcium, Magnesium, Potassium, Selenium, Zinc
CARDIOVASCULAR DRUGS	Apresoline	Vitamin B6, Coenzyme Q10
	Catapres, Aldomet	Coenzyme Q10
	Corgard, Inderal, Lopressor, Betapace, Tenormin, Sectral, Blocadren	Coenzyme Q10, Melatonin
DIURETICS	Lasix, Bumex, Edecrin	Vitamins B1, B6, C, Magnesium, Calcium, Potassium, Zinc, Sodium
	Enduron, Diuril, Lozol, Zaroxolyn, Hygroton	Magnesium, Potassium, Zinc, Coenzyme Q10, Sodium
CHOLESTEROL LOWERING AGENTS (STATINS)	Lescol, Lipitor, Mevacor, Zocor, Pravachol, Crestor	Coenzyme Q10
	Colestid, Questran	Vitamins A, B12, D, E, K, Beta-Carotene, Folic Acid, Iron
ULCER MEDICATIONS	Tagamet, Pepcid, Zantac	Vitamins B12, D, Folic Acid, Calcium, Iron, Zinc, Protein
	Prevacid, Prilosec	Vitamin B12, Protein
HRT – HORMONE REPLACEMENT THERAPY	Evista, Prempro, Premarin, Estratab	Vitamins B2, B6, B12, C, Folic Acid, Magnesium, Zinc
ORAL CONTRACEPTIVES	Norinyl, Ortho-Novum, Triphasil, etc.	Vitamins B2, B3, B6, B12, C, Folic Acid, Magnesium, Selenium, Zinc

Core Support Powder

- Nutrients enhances phase II liver detox pathways
 - NAC
 - Glycine
 - Taurine
 - ALA
 - Green tea extract
 - Rosemary
 - Ellagic acid
 - Vita Veggie blend
 - Schizandra berry extract
- Fiber helps to bind to toxins and eliminate them through the stool



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Core Support Powder

- 15g Protein
- 5g Fiber and Bentonite
- Support for each Phase II Pathway
- Up Regulate Phase II Enzymes
 - VitaVeggie, Green Tea, Rosemary, etc
- Increase Cellular Energy
 - NAC, ALC, ALA

Alpha Base Capsules

- Vitamin and mineral cofactors that help enhance phase I & II liver detox pathways
- High dose of B vitamins – cofactors used in phase I & II detox
- High dose of antioxidants (vit. C, E, zinc) are free radical scavengers that protect cells while toxins come out



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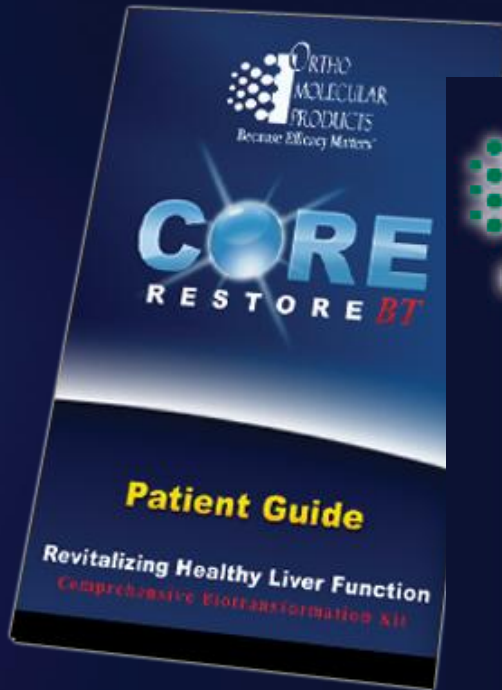
PhytoCore Capsules

- Nutrients & herbs that enhance phase I & II liver detox pathways
- Lipotropics
 - Methionine, Choline, Inositol
- Choloretics/Cholegogue
 - Dandelion, Yellow Dock, Beat leaf, Etc
- Silymarin



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Patient Guide



Appendix D: 28 Day Protocol Summary Chart (Calendar)

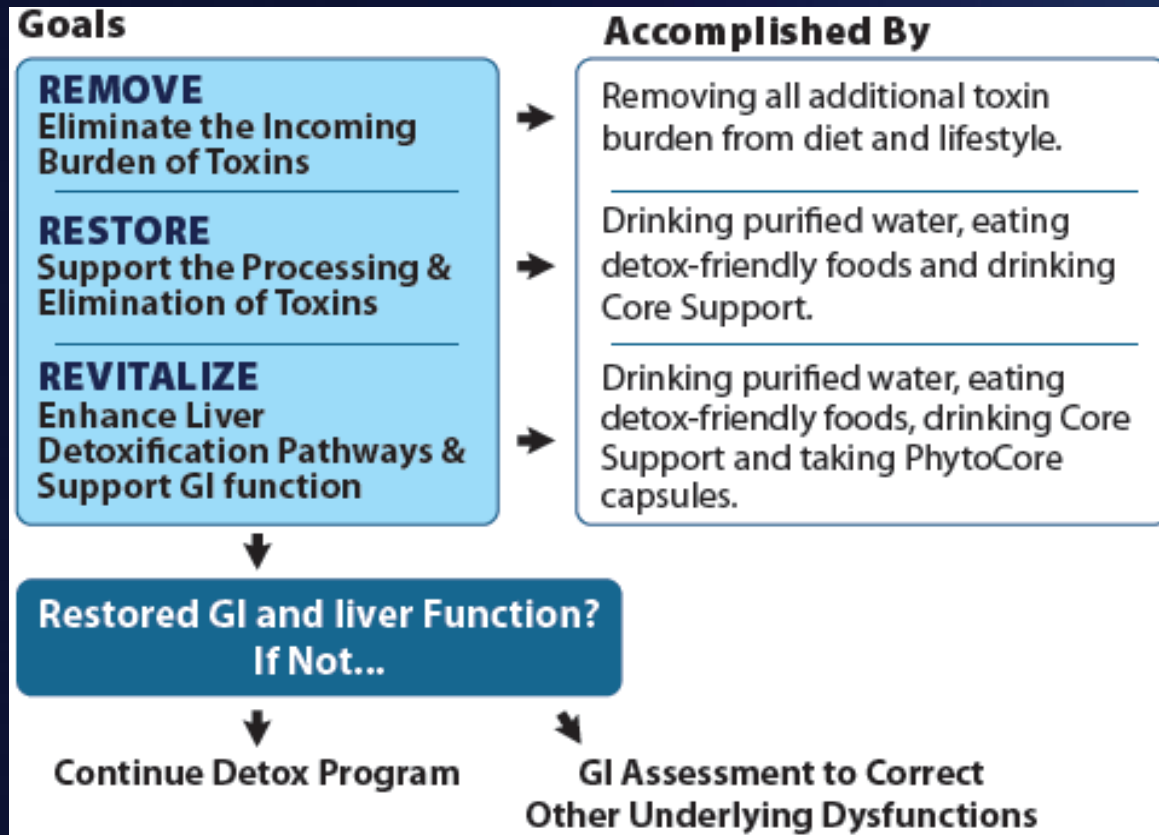
1	2	3	4	5	6	7
FASTING DAYS						
AM: 2 Scoops Powder 2 AB Capsules	AM: 2 Scoops Powder 2 AB Capsules	AM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	AM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	AM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	AM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	AM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules
PM: 2 Scoops Powder 2 AB Capsules	PM: 2 Scoops Powder 2 AB Capsules	PM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	PM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	PM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	PM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	PM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules
8	9	10	11	12	13	14
AM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	AM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	AM: 2 Scoops Powder 2 AB Capsules 2 PC Capsules	AM: 2 Scoops Powder 2 AB Capsules 3 PC Capsules	AM: 2 Scoops Powder 2 AB Capsules 3 PC Capsules	AM: 2 Scoops Powder 2 AB Capsules 3 PC Capsules	AM: 2 Scoops Powder 2 AB Capsules 3 PC Capsules
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15	16	17	18	19	20	21
AM:	AM:	AM:	AM:	AM:	AM:	AM:
PM:	PM:	PM:	PM:	PM:	PM:	PM:



Patient Protocol

- Days 1-2 (Fasting days) in AM & PM:
 - 2 scoops of Core Support powder mixed with 8 oz. of water, rice milk or pure fruit juice
 - 2 Alpha Base capsules
- Days 3-7 (Meals allowed) in AM & PM:
 - 2 scoops of Core Support powder mixed with 8 oz. of water, rice milk or pure fruit juice
 - 2 Alpha Base capsules
 - 2 PhytoCore capsules

Program Goals



Signs That Your Detoxification Capacity Might Be Impaired

- Digestion, Elimination Problems
(constipation, bloating, diarrhea, nausea, heartburn)
- Elevated Cholesterol
- Overweight/Underweight
- Allergies
- Skin Disorders
- Fatigue
- Anger, Depression, Irritability
- Dark Circles Under Eyes
- Blood Sugar and Hormonal Imbalances
- PMS
- Asthma
- Frequent Flus, Colds, Sinus Infections
- Muscle and Joint Pain, Fibromyalgia
- Insomnia
- Chemical Sensitivities

If you identify with many of the signs listed above, a portion of your impaired health may be due to inadequate clearance of toxins within the liver-gastrointestinal systems. The simple program within this guide will show you how easy it is to reduce and even eliminate most of the burden that these unwanted toxins cause- preventing optimal health.

Benefits of Core Restore

- Feel better
- Unmask health and GI issues
- Change your “Filter”
- Weight loss
- Stored toxins in fat will be released
- Benefit for the entire body

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