



New Insights Into Cholesterol, Liver, and Gallbladder Management

Clinical Insight

Clinical Recommendations

- Life changes
- Dietary support
- Foundational support for the liver, gallbladder, and cholesterol management
- Targeted support for the liver
- Targeted support for the gallbladder
- Cholesterol modulation
- Systemic support

Life changes



Natural treatments (like diet and exercise) should be used as the first step in addressing the body's natural inflammatory response. Heredity issues may preclude total health, but let's do the best we can!

- **Weight loss**
 - Helps lower triglycerides/raise HDL
- **Increase physical activity**
 - May lower LDL/raise HDL
- **Decrease consumption of alcohol**
 - While it increases HDL, it doesn't lower LDL
 - Too much can increase triglycerides, cortisol, and inflammation

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Dietary support



- Unhealthy fats (increase arachadonic acid)
 - Saturated, hydrogenated, partially hydrogenated
 - Polyunsaturated oils (omega-6) including soybean, safflower, sunflower
 - Fried foods, sweet baked goods, most crackers
- Sugar products
 - Body perceives sugar as an inflammatory response, which stimulates the liver to produce more cholesterol

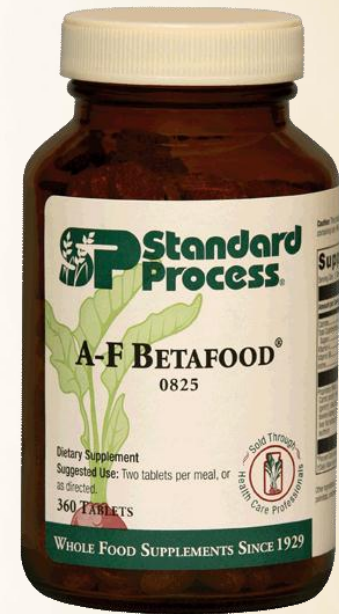
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Liver, gallbladder, and cholesterol management

A-F Betafood[®] is an excellent all-around product to support:

- Bile production in liver and healthy bile flow in gallbladder
- Processing of fats (gallbladder symptoms of gas, bloating, fatty-food intolerance, light-colored stool)
- Healthy levels of fat in the liver



Clinical Recommendations:

- 2 tablets/meal (6/day)
- After 1 week, add Cyruta[®] (1-2 tablets/meal) or Soybean Lecithin (3 perles/meal) to help release peripheral cholesterol
- Replace A-F Betafood with Betafood[®] if gallstones are suspected
 - Dosage: 2 tablets 3 times per day at 10:30 and 7:00
 - 15 tablets or more per day may be used in acute cases

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Targeted Support: Liver

Livaplex®

- Whole food multivitamin for the liver
- Supports healthy liver and gallbladder function, including bile production and digestion of fats
- Supports the body's normal elimination of toxins

Betacol®

- Used for portal congestion/healthy circulation/natural inflammation support
- Supports handling/processing of fats
- Support liver function/bile production
- Supports homocysteine management

Hepatrophin PMG®

- Supports liver tissue and function
- Provides uniquely derived nucleoprotein-mineral extracts that support cellular health



Clinical Recommendations:

- Livaplex: 1 capsule/meal
- Betacol: 1 capsule/day with meal
 - Increasing every 3 days to 3 capsules/day
- Hepatrophin PMG: 1 tablet/meal

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Targeted Support: Gallbladder

Choline

- Supports healthy fat metabolism
- Supports healthy cell membrane structure and function
- Physiological detergent for elevated blood fats, fatty liver, and gallbladder symptoms



Cholacol®

- Source of bile salts
- Helps enzymes break down fats



Targeted Support: Gallbladder

Clinical Recommendations:

- Choline: 2 tablets, 3 times/day
 - Increasing to 10-12 tablets/day if gallstones present
 - Synergistic with Inositol (affects cholesterol, similar to niacin)
- Cholacol: 3-6 tablets/day
 - Used synergistically with A-F Betafood
 - For gallbladder symptoms, indigestion, craving for sweets, inability to digest fats, constipation, light-colored stool
 - Contraindicated if biliary tract is obstructed
 - Excellent for excessive appetite
 - Secondary to low serum fat hormone levels failing to stimulate leptin hormone in the hypothalamus to signal satiety
 - Numerous support products depending on patient's needs

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Cholesterol modulation

Soybean Lecithin

- Contains phosphatidylcholine, a major constituent of bile acids
 - Has bile thinning properties
 - Helps draw cholesterol out of the liver and through the bile duct
- A precursor to choline
- A rich source of phospholipids
- Upon delivery of the cholesterol bile salts to the large intestine, dietary fiber can bind it for defecation



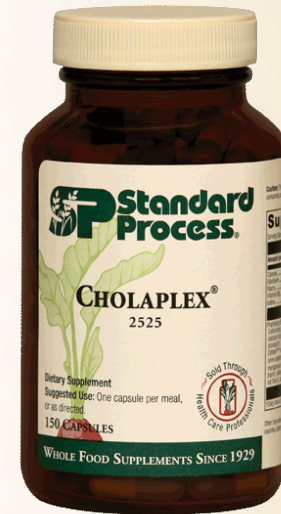
Clinical Recommendations:

- Soybean Lecithin: 3 perles 3 times/day with meals
- Temporarily increases blood cholesterol levels
 - Take with 12 calcium lactate tablets/day to balance the naturally occurring phosphorus in the soybean lecithin
 - Choline, a fat emulsifier should be used instead of soy bean lecithin (2 tablets, 3 times/day) for patients with osteoporosis

Cholesterol modulation (cont.)

Cholaplex

- Provides lipotropic factors that enhance mobilization of fats from the peripheral tissues to the liver, whereby the liver metabolizes the blood fats
- For general liver maintenance
- Cholesterol and lipid support already within a normal range



Garlic

- Well-documented for cholesterol, platelets and fibrinolysis
 - Contains alliin; when crushed or chewed, this converts to allinase, which is the strong active smelling component of garlic
 - Allinase effects the liver's ability to make cholesterol
- Garlic reduces triglycerides and helps maintain normal cholesterol and normal blood pressure already in a normal range



Clinical Recommendations:

- Cholaplex: 3 capsules 3 times/day with meals
- Garlic: 1 capsule twice/day (AM/PM)

Cholesterol modulation (cont.)

Niacin

- Niacin lowers LDL, lowers triglyceride levels, and safely raises HDL
- Improves LDL particle size, while supporting triglyceride, LDL, VLDL and total cholesterol levels already in a normal range
- Niacin effective in lowering lipoprotein (a)
- Nicotinic acid (niacin) is the most potent treatment clinically available for addressing LDL cholesterol and VLDL cholesterol and HDL cholesterol



Clinical Recommendations:

- Niacinamide-B6: 1 capsule/day
- Niacinamide is a form of niacin
- Taking cholesterol-affecting agents at night is best because the liver manufactures most of its cholesterol at night
- To avoid “red face,” pre-treat with aspirin or white willow bark 10-15 min before administering niacin

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Systemic support

- Omega-3 fatty acids
- Antioxidants
- Fiber
- Glucose metabolism

Systemic support: Comparing Omega-6 & Omega-3

OMEGA-6 FATTY ACIDS

Linoleic Acid (LA)

(e.g. corn, safflower, sunflower oil)

delta-6 desaturase*

Gamma-Linolenic Acid (GLA)

(e.g. evening primrose, borage, black currant seed oils)

Dihomo-Gamma-Linolenic Acid (DGLA)

PGE1
(anti-inflammatory)

delta-5 desaturase

Arachidonic Acid (AA)
(meat)

Cyclooxygenase

PGE2

(pro-inflammatory)

Lipoxygenase

LTB4

(pro-inflammatory)

OMEGA-3 FATTY ACIDS

Alpha-Linolenic Acid (ALA)

(e.g. flaxseed oil)

delta-6 desaturase*

Steridonic Acid

Eicosatraenoic Acid

delta-5 desaturase

EPA DHA
(e.g. fish oils)

Cyclooxygenase

delta-4 desaturase

PGE3

(anti-inflammatory)

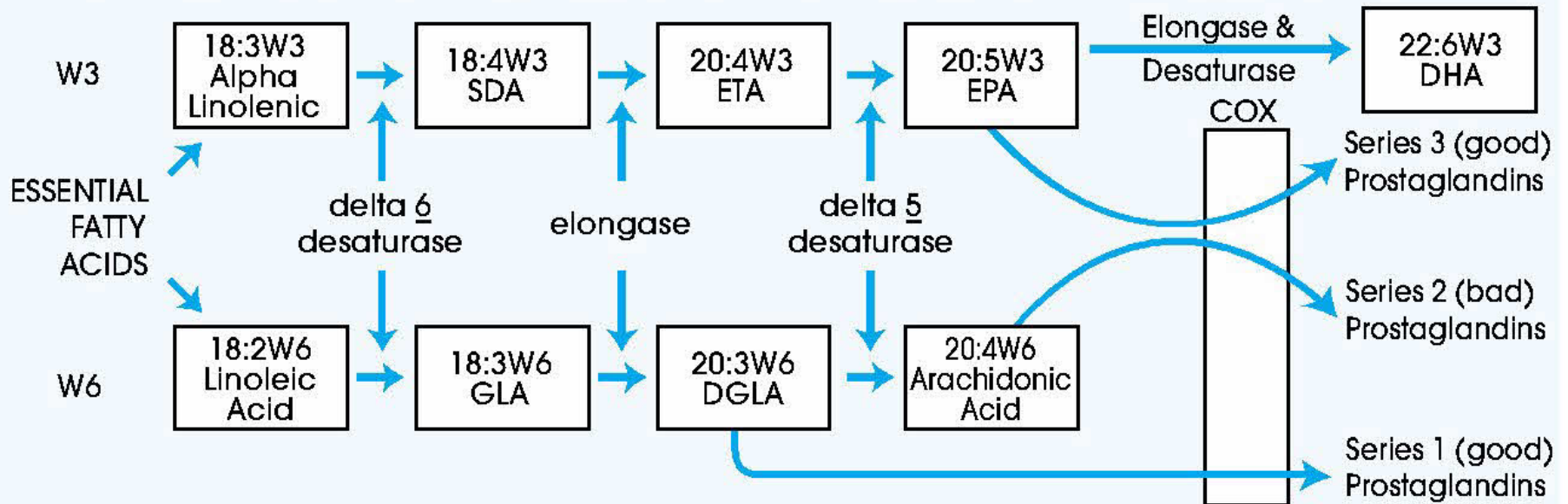
Lipoxygenase

LTB5

(anti-inflammatory)

Omega-3 and Omega-6

W3 and W6 FATTY ACIDS COMPETE FOR ENZYMES DURING METABOLISM



SDA - Stearidonic Acid, ETA - Eicosatetraenoic acid, DGLA - Dihomogammalinolenic Acid, COX - Cyclooxygenase

Systemic support:

Omega-3 fatty acids (cont.)

Benefits:

- Lower triglycerides
- Raise HDL
- Lower CRP
- Regulate insulin responses (resistance and receptor sites) and the body's natural inflammatory mediators

Clinical Recommendations:

- Tuna Omega-3 Oil: 2 perles twice/day
- Tuna Omega Chewable: 2 perles twice/day
- Calamari Omega-3 Liquid: 1 teaspoon twice/day



Systemic support: Antioxidants

Green tea is a great source of polyphenols – potent antioxidants that reduce oxidation. Some product options are:

OPC Synergy®

- Strong antioxidant protection from grape seed extract, red wine extract, green tea, bilberry

Ginkgo Synergy®

- Contains both ginkgo biloba leaf extract and ginkgo biloba whole leaf, as well as grape seed extract.



Medi-Herb VitanoX®

- Strong antioxidant protection from rosemary, green tea leaf, turmeric, and grape seed

Other antioxidant options are products containing selenium, glutathione, N Acetyl Cysteine, natural beta carotene, zinc, vitamin C, and vitamin E.

Systemic support: Fiber

- Soluble fiber
 - Binds bile salts and results in addressing cholesterol via elimination in the large intestine
- Insoluble fiber supports microflora of the large intestine
 - Results in the liberation of short chain fatty acids: butyrate, proprionate, acetate, lactic acid (SCFA)
 - These SCFAs directly provide fuel for the cells lining the gut, helping them naturally heal and repair for optimal function
 - Affects cholesterol and glucose metabolism

Clinical Recommendations:

- Gastro-Fiber[®]: 3 capsules, 2-3 times/day with meals
 - A combination of soluble and insoluble fiber



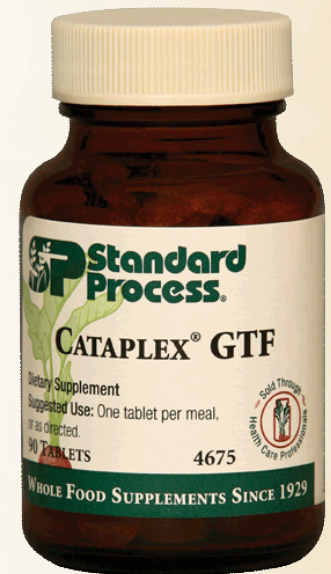
Systemic support: Glucose Metabolism

Cataplex[®] GTF

- High in chromium
- Modulates glucose metabolism
 - Enhances insulin's effect and supports healthy cholesterol metabolism

Clinical Recommendations:

- Cataplex GTF: 2-3 tablets/meal



Review

- **Foundation:** A-F Betafood with Cyruta
- **Liver:** Livaplex, Betacol, Hepatrophin PMG extract
- **Gallbladder:** Choline with Inositol, Cholacol
- **Cholesterol:** Soybean Lecithin with Calcium Lactate, Cholaplex, Niacinamide-B6, Garlic
- **Systemic:** Calamari Omega-3 Liquid or Tuna Omega-3, antioxidant products, Gastro-Fiber, Cataplex GTF



Credits

Judith DeCava, CNC, LNC

Stephen Sinatra, MD



Michael E. Greer, M.D.
**Holistic, Homeopathic & Herbal
Solutions for Health**

2721 First Avenue, Suite 408, Seattle, WA 98121
Tele: (206) 343-5985 Fax: (206) 343 2356

www.michaelgreermd.com
michaelgreermd@comcast.net



Thank you

Questions ?