



## GALLSTONE PREVENTION AND CHOLESTASIS

### Nutritional Support Protocol

#### Lifestyle Recommendations:

1. Maintain a normal weight. Obese women are seven times more likely to develop gallstones. Obesity increases cholesterol synthesis, which leads to more cholesterol secreted in the bile. Weight loss should occur at a steady pace, since rapid reduction can increase biliary cholesterol saturation. Adequate amounts of healthy fats should also be included in the diet, since prolonged dietary fat reduction can also promote cholesterol saturation and prevent proper gallbladder emptying.
2. Learn to manage stress. One study showed chronic social stress can increase bile retention, increase gallbladder hypertrophy, and inhibit gallbladder emptying.
3. Engage in a brisk-paced aerobic activity such as cycling, jogging, or swimming for 20 - 30 minutes every day. A study of over 60,000 women showed that regular exercise reduced gallbladder-surgery risk by 20 percent.
4. Try an allergy elimination diet. One study showed that 100 percent of subjects became free from gallbladder-attack symptoms on a basic elimination diet (beef, rye, soybean, rice, cherry, peach, apricot, beet, and spinach). Common food offenders include (in descending order): egg, pork, onion, fowl, milk, coffee, citrus, corn, beans, and nuts.
5. Consider that birth control pills significantly increase the risk of developing gallstones.

#### Dietary Recommendations:

1. Avoid sugar and other refined carbohydrates, which link to increased cholesterol saturation of the bile. Replace sugar with the polyol sugar xylitol.
2. Consume at least 35 grams of fiber a day. Constipation commonly links to gallstone formation. Fiber both reduces absorption of deoxycholic acid, which greatly lessens cholesterol solubility in bile, and promotes its excretion. Avoid getting fiber from legumes, which increase biliary cholesterol saturation due to the legumes' saponin content. Consider taking 1 tablespoon PaleoFiber with each meal.
3. Eat 5-9 servings of fresh fruits and vegetables daily, or add one tablespoon of PaleoGreens and PaleoReds to your favorite drink.
4. Drink at least eight glasses of water with fresh lemon each day to maintain the water content of bile.
5. Substitute buckwheat for wheat. One Japanese study showed buckwheat significantly decreases gallstone formation and reduces cholesterol concentration compared to a casein diet.

#### Supplement Recommendations:

In addition to the core nutrient program recommended by your Health Care Professional and/or from the results of your most recent Designs for Health Metabolic Profile:

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| <b>LV-GB Complex:</b>        | 1 capsule with breakfast, lunch, and dinner                      |
| <b>Phosphatidyl Choline:</b> | 1 softgel with breakfast, lunch, and dinner OR 1 teaspoon powder |
| <b>Betaine HCL:</b>          | 1 tablet with breakfast, lunch, and dinner                       |
| <b>Milk Thistle:</b>         | 1 capsule with breakfast, lunch, and dinner                      |

*Note: This protocol is not to be used in acute gallstone obstruction.*

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