

## Your Monthly Update

*Dear Colleague*

Welcome to the March 2009 newsletter from Pure Bio Ltd.

### Did you know:

A high fat diet does not necessarily damage the heart or circulatory system. The Masai have zero incidence of coronary heart disease (CHD), although their diet is primarily animal meat, blood and milk. The East African Samburu consume 10 litres of full-fat milk a day, but have no CHD. Likewise, the Aborigines consume a diet that is 64% fat, but have very low rates of CHD.

The chosen topic for this month is:

## Gallstones (Cholelithiasis)

### Protocol Summary

Ranking	Nutritional Supplements	Botanical Medicine
Secondary	Wheat bran	
Other	Betaine HCl Phosphatidyl choline Vitamin C	Milk Thistle Peppermint oil Dandelion Barberry
<p>Primary – Reliable and relatively consistent scientific data showing a substantial health benefit.</p> <p>Secondary – Contradictory, insufficient, or preliminary studies suggesting a health benefit or minimal health benefit.</p> <p>Other – An herb is primarily supported by traditional use, or the herb or supplement has little scientific support and/or minimal health benefit.</p>		

## Symptoms

The gall-bladder stores and concentrates bile produced by the liver, until it is needed for the digestion of fats during a meal. The reservoir contracts and expels its contents into the narrow passageway of the global-bile duct and ultimately into the intestinal tract. The gallbladder not only digests fats, but contains the wastes eliminated by the liver as it breaks down substances like drugs, hormones and protein.

Gallstones are the most common gall-bladder problem. Stones in the gall-bladder will tend to go undetected for a long time, but once a larger stone passing through the global bile duct becomes lodged, it can cause intense pain, appearing as a sharp cramp just under the

right ribcage, which recurs and subsides. In some cases, the pain will shoot into the right shoulder or back. There may also be accompanying nausea and fever with chills.

Not all lodged gallstones cause colic however. If the gallstones remain blocking the bile flow, jaundice results instead, causing yellow and itchy skin. The backup may cause the gall-bladder to inflame. The resulting infection causes aching under the right ribcage, indigestion, nausea and fever. A blockage near the end of the global bile duct is the most frequent cause of an acute pancreatitis.

Bloating and pressure under the right ribcage are indications of liver and gall-bladder dysfunction and possible stone development. Mild symptoms of indigestion, gas and bloating from eating rich, oily or creamy foods high in fat content are often a sign of inadequate bile. This leads to impaired absorption of all foods and hinders the assimilation of the fat-soluble vitamins A, D, E and K in particular. Pinching or aching just under the right ribcage, aching between the shoulder-blades, and a lasting bitter taste in the mouth are other signs of gall-bladder or liver trouble.

## Causes

Colic caused by gallstones most typically occurs after eating rich, fried foods, coffee or legumes. Most gall-bladder problems are associated with a poor diet and a sluggish liver. When too little bile is produced, stones are more likely to form. Also, the longer bile remains in the gall-bladder, the thicker it becomes, increasing the likelihood of stones. The consumption of foods that stimulate the gall-bladder, such as the essential fatty acids (EFAs), will help to prevent the development of stones. EFAs support the transport of cholesterol and stimulate bile when production and release are poor. For this reason, the consumption of fats should be limited to natural, cold-pressed oils high in essential fatty acids, such as flax seed oil. Diets low in fibre and high in cholesterol from meat sources in particular are crucial in the development of cholesterol stones. Lack of fibre is a problem in the modern Western diet because so many products are refined e.g. white rice, pasta, white flour and breads.

## Dietary Modification

Cholesterol is the primary ingredient in most gallstones. Some, but not all, research links dietary cholesterol to the risk of gallstones. A recent study of residents of southern Italy found that a diet rich in sugars and animal fats and poor in vegetable fats and fibres was a significant risk factor for gallstone formation.

The typical Western diet, low in fibre and high in animal fats, inhibits the absorption of bile acids by the liver. A poor diet also increases the occurrence of cholesterol and the formation of stones in the gall-bladder. **A high-fibre diet** is the key to the prevention of gallstones. Especially beneficial is water-soluble fibre, such as the pectin found in apples and carrots or the gums found in oat bran and dried beans. Water-soluble fibre binds cholesterol and harmful agents such as deoxycholic acid in the intestine and aids in their elimination. Deoxycholic acid, produced from bile acids by bacteria in the intestine, contributes to gallstone formation because it reduces the solubility of cholesterol.

The intake of animal fat or artificially hardened fats such as margarine and the fats found in most processed foods should be avoided. Gallstones are composed mostly of animal fat and cholesterol. Also, milk and milk products should be severely restricted as the casein in dairy foods promotes gallstone formation. Good alternative protein sources to meat and milk are **soy bean products** such as tofu, as well as beans, lentils and whole grains. Soy bean products contain lecithin which helps reduce the risk of gallstones by keeping cholesterol and fats emulsified. **Olive oil**, which contains mono-unsaturated fatty acids, and nut and seed oils like

flax seed or walnut oil, which contain the poly-unsaturated essential fatty acids, are beneficial to the gall-bladder. The fatty acids in these oils stimulate bile flow to flush out small stones and stimulate the production of the digestive enzyme lipase needed for fat metabolism.

Artichokes and rhubarb stimulate bile flow and help heal gall-bladder inflammation. Bitters from lettuce, endive and chicory also stimulate bile flow.

Most studies report that vegetarians are at low risk for gallstones. In some trials, vegetarians had only half the gallstone risk compared with meat eaters. Vegetarians often eat fewer calories and less cholesterol. They also tend to weigh less than meat eaters. All of these differences may reduce gallstone incidence. The specific factors in a vegetarian diet that account for a low risk of gallstone formation remain somewhat unclear and may only be present in certain vegetarian diets and not others.

Coffee increases bile flow and therefore might reduce the risk of gallstones. In a large study of men, those drinking two to three cups of regular coffee per day had a 40% lower risk of gallstones compared with men who did not drink coffee. In the same report, men drinking at least four cups per day had a 45% reduced risk. Caffeine appears to be the protective ingredient, as decaffeinated coffee consumption was not linked with any protection. People at risk for gallstones who wish to consider increasing coffee drinking to reduce risks should talk consult their practitioner beforehand. Caffeinated beverages can aggravate symptoms of insomnia, peptic ulcer, panic attacks, and a variety of other conditions; as well as markedly stress adrenal function.

Constipation has been linked to the risk of forming gallstones. When constipation is successfully resolved, it has been shown to reduce the risk of gallstone formation. Wheat bran, commonly used to relieve constipation when combined with fluid, has been reported to reduce the relative amount of cholesterol in bile of a small group of people whose bile contained excessive cholesterol (a risk factor for gallstone formation). The same effect has been reported in people with pre-existing gallstones. Two tablespoons per day of unprocessed Miller's bran would be a recommended dosage for this purpose; an alternative is to consume commercial cereal products that contain wheat bran. Bran should always be accompanied by plenty of fluid. Adding more bran may cause gastrointestinal symptoms in some people. If this occurs, consult a practitioner.

Gallbladder attacks (though not the stones themselves) have been reported to result from food allergies. Allergic inflammation causes swelling of the global-bile ducts, preventing bile from leaving the gall-bladder and predisposing infection and gallstone formation. The one study to examine this relationship found that all of the participants with gallbladder problems showed relief from gallbladder pain when allergy-provoking foods were identified and eliminated from the diet. Eggs, pork and onions were reported to be the most common triggers. Pain returned when the problem foods were reintroduced into the diet. Consult your practitioner for help with diagnosing food allergies.

## Lifestyle Modification

People with gallstones may consume too many calories and are often overweight. Obese women have seven times the risk of forming gallstones compared with women who are not overweight. Even slightly overweight women have significantly higher risks. Losing weight is likely to help, but rapid weight loss might increase the risk of stone formation. Any weight-loss program to prevent or treat gallstones should be reviewed by a practitioner. Weight-loss plans generally entail reducing dietary fat, a change that itself correlates with protection against gallstone formation and attacks.

In women, recreational exercise significantly reduces the risk of requiring gallbladder surgery due to gallstones. In a study of over 60,000 women, an average of two to three hours per week of recreational exercise (such as cycling, jogging and swimming) reduced the risk of gallbladder surgery by about 20%.

Use of birth control pills significantly increases a woman's risk of developing gallstones.

## Other therapies

The most common medical treatment for gallstones is surgical removal of the gallbladder (cholecystectomy). Mechanical shock waves (lithotripsy) may also be applied to break up the stones. Unfortunately, gallstones commonly recur following non-surgical forms of treatment.

## Nutritional Supplement Treatment Options

[Vitamin C](#) is needed to convert cholesterol to bile acids. In theory, such a conversion should reduce gallstone risks. Women who have higher blood levels of vitamin C have a reduced risk of gallstones. One study reported that people who drink alcohol and take vitamin C supplements have only half the risk of gallstones compared with other drinkers, though the apparent protective effect of vitamin C did not appear in non-drinkers. In another trial, supplementation with vitamin C (500 mg QID for two weeks before gallbladder surgery) led to improvement in one parameter of gallstone risk ("nucleation time"), though there was no change in the relative level of cholesterol found in bile.

[Betaine HCl](#) - According to one report, people with gallstones were likely to have insufficient stomach acid.

[Phosphatidyl choline \(PC\)](#)—a purified extract from lecithin—is one of the components of bile that helps protect against gallstone formation. Some preliminary studies suggest that 300–2,000 mg per day of PC may help dissolve gallstones.

Lipotropic factors help prevent fats from depositing in the liver. The amino acid [L-methionine](#) and the B vitamins [choline](#) (as phosphatidyl choline and [inositol \(as IP6\)](#)) are all lipotropic factors necessary for lecithin formation.

## Botanical Treatment Options

[Milk thistle](#) extracts in capsules or tincture may be beneficial in preventing gallstones. In one study, [silymarin](#) (the active component of milk thistle) reduced cholesterol levels in bile, which is one important way to reduce gallstone formation. People in the study took 420 mg of silymarin per day.

According to preliminary research, a mixture of essential oils dissolved some gallstones when taken for several months. The greatest benefits occurred when the oils were combined with chenodeoxycholic acid, which is available by prescription. However, only about 10% of people with gallstones have shown significant dissolution as a result of taking essential oils. Peppermint oil is the closest available product to that used in the research described above. Use of peppermint or any other essential oil to dissolve gallstones should only be attempted with the close supervision of a qualified practitioner.

[Dandelion](#) promotes the formation of bile and removes excess water from the body in conditions resulting from liver dysfunction.

**Swedish bitters** tone the liver and stimulate bile production and expulsion. Take 1-2 tbsp. of Swedish bitters, followed by 1 cup of peppermint tea, three times daily. On alternate days take 1 tbsp. black radish juice in warm water or 1/2 cup raw potato juice.

**Barberry** is a bitter that stimulates bile flow, eases liver congestion and acts as a laxative. Take 15-20 drops of tincture three times daily before meals.

When the body is overloaded with toxins, herbal baths with juniper or fir branches will greatly assist the herbal cleansing formula.

### **Gallbladder Flush #1:**

If gallstones are small, abstain from food after lunch and drink distilled water or herbal laxative teas only. If there is no bowel movement the next morning, take a chamomile enema. The colon should be empty. Then, every fifteen minutes, take alternately 1 tbsp. of lemon juice and 1 tbsp. of olive oil until 1 cup of each has been used. Finish with a hot cup of tea made of a combination of any of these bitter herbs: yarrow, wormwood, chamomile or barberry. This therapy will stimulate bile secretion, which flushes out small gallstones.

### **Gallbladder Flush #2:**

- For two weeks, drink high quantities of apple juice (up to 1 litre per day), to soften the stones. (Alternatively, have a heaped spoon of apple pectin on cereal or in juice daily).
- For the last 3 nights of the fortnight, place packs of castor oil over the gall bladder with a hot water bottle for 1 hour, wrapping a towel around the abdomen for warmth.
- Final day: one cup (half a pint) of olive oil with the juice of a lemon divided every half hour for three hours (i.e. six separate doses).
- Also, chew on linseeds to extract the oil, which stimulates mucous from the gastrointestinal tract and speeds up the transit of the stones.

## **Homeopathic Treatment Options**

A well-chosen homeopathic remedy can promote the release of stones from the gall-bladder duct and relieve colics. All remedies are chosen according to symptoms. Take 2 tablets under the tongue in a 30c strength, repeating every fifteen minutes to hourly, depending on the severity of the attack.

**Colocynthis** is a typical colic remedy. It is particularly useful for terrible cramps which cause the person to double over and writhe in pain. There is a desire to keep the area warm and press hard against it. Anger often brings on the attack.

**Magnesia phosphorica** is another common homeopathic remedy used for colics. In this case there is a greater desire for warmth, and pressure feels good because of the warmth. There is restlessness and pacing helps.

**Belladonna** can also be used for a colic, if the pains begin and resolve suddenly. Jarring and pressure cause terrible pain. The cheeks are usually noticeably red and there is usually fever.

**Chelidonium** is a well-known liver remedy that also soothes gall-bladder colics which shoot from the liver into the right shoulder. Diarrhoea and vomiting accompany the pain. The vomiting can be so severe that the person is only able to keep down warm drinks.

Nux vomica will soothe colics when there is a feeling that vomiting would relieve the pain but the person is incapable of it. The person wants to keep still and curl up.

## **External Therapies**

*Get an accurate diagnosis by a health practitioner before attempting any self-help therapies.*

With a gall-bladder colic, fast, keep warm and rest in bed.

For an acute attack, apply hot compresses on gall-bladder, back and right shoulder blade.

For colic and a chronic gall-bladder condition, apply hot flax seed compresses on liver area.

For inflammation, apply cold milk wraps.

Sitz-baths help to decongest and detoxify the intestinal tract.

Detoxify liver and colon.

Use a coffee enema for nausea, pain and fever.

For an acute inflammation with severe colicky pain, jaundice and floating stools, see doctor before applying any compresses.

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