

## Gall Bladder Health

The gall bladder is a 3-4 inch long, muscular sac (or reservoir) located under the right lobe of the liver, which stores the bile secreted by the liver. Bile is composed of bile salts, cholesterol and bilirubin and is passed from the liver into the gall bladder through channels known as bile ducts. The liver produces about a pint every day and while the bile is being stored in the gall bladder it becomes more concentrated to make it better at digesting fat. The gall bladder releases the bile into the digestive system when it is needed when food arrives.

### The functions of bile include:

- Emulsification of fat (making fatty acids water-soluble by dispersing them into smaller droplets for enzymes to attack). Fats and fat soluble vitamins (A, D, E, K) can then be absorbed by the intestines.
- Neutralizes excess stomach acid in the small intestine
- Bactericidal, destroying microbes in the food
- Excretion of bilirubin, cholesterol, heavy metals and toxins
- Colours faeces and urine.

If you have *low bile production* you may get some of the following symptoms: Constipation, fat malabsorption, fatty stools, floating stool, fatty food intolerance, gallstones and nausea.

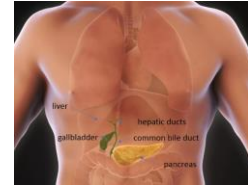
### To maintain a healthy bile extraction:

- Daily consumption of six to eight glasses of water is necessary to maintain the water content of bile
- Stomach acid may increase bile production
- Rice fibre and olive oil may stimulate the secretion of bile.
- Cholagogues increase bile secretion and many herbal cholagogues, such as dandelion root, silymarin, globe artichoke and turmeric have a positive effect on the solubility of bile.
- Other healthy herbs include fennel, ginger, parsley, alfalfa, radish and wild yam.
- Peppermint oil (in capsules) is used to cleanse the gall bladder.

### Gallstones

Gallstones are small stones that form in the gall bladder. They can range in size from a grain of sand to larger than a pea-sized mass. They are usually made of cholesterol and in most cases cause no symptoms and do not need to be treated. It is estimated that over 1 in 10 adults in the UK have gallstones, although only a minority go on to develop symptoms.

The *causes* of gallstones are not clear although in most cases the levels of cholesterol in bile become too high and the cholesterol forms into stones. You are more at risk of developing gallstones if you are overweight, female (particularly if you have had children), aged 40 or over, with the risk increasing as you get older.



*Complications* can arise if a gallstone becomes trapped in a duct inside the gall bladder. This can trigger a sudden, intense pain (known as biliary colic) in the upper right abdominal region, which can last up to five hours. You may develop inflammation within the gall bladder (cholecystitis), causing persistent pain, yellowing of the skin and eyes (jaundice) and a high temperature. Occasionally pain will be felt under the right shoulder blade. The pains are typically strongest after eating a high fat meal.

*Medical treatment* is usually only necessary if the gallstones cause complications as described above. In such cases keyhole surgery may be recommended to remove the gall bladder (cholecystectomy).

### **How to reduce the risk of developing Gall Stones**

- Physical activity may reduce the risk of gall stones
- Maintain a healthy weight. Rapid weight changes (yo-yo dieting) increases the risk of gallstones by as much as 70%.
- Do not overeat.
- Avoid sugar and products containing sugar.
- Avoid animal fats and meat, saturated fats, full-fat dairy products, fried foods, spicy foods, margarine, soft drinks, commercial oils, chocolate and refined carbohydrates.
- Eat a high fibre diet.
- Always eat breakfast.

### **How to live without a Gall Bladder**

It is possible to lead a normal life without a gall bladder. The liver will still produce bile to digest food but the bile will continuously drip into the small intestine rather than build up in the gall bladder and be released when you eat. Therefore, as the bile quantity and concentration required to process a meal may not be sufficient, you may have difficulty in digesting foods which may result in some of the symptoms of low bile production listed above. Additionally, you may not be digesting (and therefore absorbing) fat soluble vitamins, leading to nutrient deficiencies.

It is very useful, for people who have had their gall bladders removed to take bile salt supplements with fatty meals in order to emulsify the fats eaten. Also helpful are lipase-loaded digestive enzymes when taken with every meal and snack.

If you want further advice on dietary and supplemental support for your gall bladder I advise that you consult me, or another qualified nutritional therapist.

**Important note:** This is not intended to replace medical advice. If you have any of the symptoms above you must visit your GP, or if the pains are severe, visit your nearest A&E unit.