



Food stimulating outflow bile

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Abstract. The article considers the influence of bile and its effect on the human body. A systematic review of modern specialized literature and relevant scientific data was carried out. Food products that will help to remove bile are indicated, the scientific foundations of choleretic nutrition are considered.

Key words: bile, choleretic products, diagnostics, useful products, dangerous products

There are many conditions that can lead to cholestasis —stagnation and reduced flow of bile. In this case, the digestive fluid does not enter the small intestine, does not break down fats and does not remove toxins from the body. This leads to digestive problems, the accumulation of toxins. Many factors can provoke the disease, but malnutrition and an unhealthy lifestyle are the main reasons. Fortunately, the disease can be avoided if the diet is adjusted in a timely manner.

Why does the body need bile?

The greenish-yellow liquid is mainly composed of cholesterol, bile acids, and bilirubin, a breakdown product of hemoglobin. Also contains water, salts (potassium, sodium), copper and other metals. ^[1] It is the main antiseptic in the body and performs many functions:

- removes toxins into the stool to prevent toxic overload;
- stimulates the secretion of water in the large intestine, improves motility and prevents constipation;
- distributes antioxidants, immunoglobulins through the intestines;
- has an antimicrobial function and does not allow the development of dysbacteriosis;
- neutralizes stomach acid for the work of pancreatic enzymes.

If these processes are disturbed, there is a constant feeling of fatigue, a white or yellow coating on the tongue, bad breath, sugar cravings and weight gain in the abdomen. ^[2, 3] The problem cannot be ignored, because violations can lead to dangerous liver pathologies, especially if biliary dyskinesia is diagnosed. You need to start with a change in nutrition - even doctors admit that the right diet is often more effective than drugs. ^[four]

bile flow sequence

- the liver produces 500–600 ml of bile daily;
- half of the fluid excreted between meals enters the small intestine;
- the rest is taken to the gallbladder for storage, where 90% of the water is absorbed into the bloodstream - this makes the reserves very concentrated;
- when food with fat enters the small intestine, a series of hormonal and nerve signals causes the bile to contract, and the sphincter of Oddi to relax and open so that bile flows to food and performs digestive functions;
- about 90% of bile acids are reabsorbed into the bloodstream through the walls of the small intestine, after which the liver removes them from the blood and re-excretes them into bile - the components go through this cycle 10-12 times a day;
- a small amount of acids reaches the large intestine, where it is broken down by bacteria - some is reabsorbed, and some is excreted in the feces, giving it a dark color. ^[5]

Top 15 Foods to Improve Bile Flow

1. Chicken

Steamed, baked, or boiled fillets contain lean protein. Dietary protein is valuable because it stimulates the secretion of the hormone cholecystokinin (CCK). It causes contraction of the gallbladder and secretion of pancreatic enzymes.

2. Radish

Contains sulfur to help remove deposits from the gallbladder and vitamin C to prevent their further formation. The composition also contains the enzyme cholesterol-7-alpha-hydroxylase, which lowers cholesterol and triglycerides. Despite the benefits, radishes are not indicated for everyone and you should consult a doctor before using them. ^[6]

3. Broccoli

Cabbage is rich in fiber and calcium, which are essential for a healthy digestive tract. Dietary fiber improves peristalsis, microflora, reduces the production of bile, which is important during its stagnation. ^[7]

4. Coffee

Studies have found that caffeine inhibits the crystallization of cholesterol, increases the outflow of fluid from the gallbladder. However, decaffeinated coffee does not have these effects. ^[eight]

5. Turmeric

Bright orange spice reduces the symptoms of bloating and gas in indigestion, has a choleric property (especially when combined with black pepper). Turmeric, although it improves lipid metabolism, is not recommended for cholelithiasis. ^[9]

6. Sweet red and green peppers

Bell peppers are the best source of vitamin C among vegetables. It also replenishes B vitamins, magnesium, folic acid, and phytonutrients to protect the gastrointestinal tract from many diseases. ^[ten]

7. Milk Thistle

The herb is involved in the formation of enzymes, increases the production of bile, soothes mucous membranes and reduces inflammation. However, milk thistle is not recommended for Gilbert 's syndrome - it accelerates the first phase of detoxification , thereby increasing the level of bilirubin in the blood.

8. Oranges

The pulp is rich in vitamin C, due to the lack of which cholelithiasis develops . This is confirmed by doctors and an annual study involving 2129 people. Since vitamin C supplementation increases the risk of kidney stones, it's best to source the vitamin from natural foods, such as oranges and other citrus fruits. ^[eleven]

9. Tomatoes

Tomato fruits stimulate bile flow and remove toxins through the digestive tract, and also reduce inflammation. Tomato juice without sweeteners has the same properties.

10. Salo

The product contains 40% unsaturated fatty acids, rich in fat-soluble vitamins A, D, E. Therefore, fat binds and removes toxins, has choleretic properties.

11. Low fat dairy products

Low-fat milk, cheese, kefir, yogurt, yogurt do not burden the digestive tract, do not delay gastric emptying and do not cause bloating. Additionally, fermented milk products contain the necessary pre- and probiotics .

12. Legumes

Beans , soybeans, lentils are rich in vegetable protein. For problems with bile, it is more useful than an animal, which is confirmed by studies. ^[12]

13. Flaxseed

Flaxseed oil reduces pain, has an anti-inflammatory effect. But it cannot be taken in acute pancreatitis (only during remission), as additional bile secretion provokes spasms.

14. Nuts.

Some studies have shown that almonds and walnuts prevent the formation of gallstones. Due to their high fat content, it is important to eat them in small amounts.

15. Tofu

100 g of vegetarian cheese contains 345 mg of calcium, 8–13 g of protein, and only 5–10 g of fat. A dietary product will help avoid bouts of pain in the right hypochondrium, diversify the menu and prevent blockage of the bile ducts.

Other ways to normalize the outflow of bile

The worst enemy of the gallbladder is low-calorie diets and weight loss of 1-1.5 kg per week. They increase the risk of stone formation and other diseases, since with a reduction in food intake, the need for bile decreases - the secret becomes thick, concentrated. To help your body, you need to follow other rules:

- eat fractionally by the hour - 5-6 times a day at the same time;
- there is a lot of thermally processed and crude fiber; ^[13]
- avoid fatty foods and consume 20–40 g of fat per day;
- exclude from the diet all fried foods, crusty dishes and refined carbohydrates - added sugars, sweeteners, white flour, instant cereals, pastries, desserts;
- give up alcohol;
- do not eat ice cream, cold foods and drinks - cold blocks the work of the body;
- exclude canned vegetables and fruits from the menu;
- drink 2-2.5 liters of clean water between meals;
- do not get carried away with ginger, as it stimulates the liver to secrete more bile juice, but does not accelerate its release; ^[fourteen]
- maintain a moderate level of activity - exhausting workouts make the liver more actively produce bile, but do not improve its outflow. ^[fifteen]

Expert comment

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Studies confirm that bitter foods and bitter herbs - dark green leafy vegetables, beets, artichokes, dandelion root tea, celery juice - help to solve the problem of bile flow. Discoveries in this regard continue. So in 2020, it was documented that bile acids are produced by microbes in the gut. This once again confirms that it is necessary to take care of the gastrointestinal tract as a whole, and not about individual organs.

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Received 10/20/2021

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