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Health Options
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Diet, genetics can raise risk of gallstones

Many of us have had issues with our gallbladders or know someone who has had gallbladder problems due to gallstones. The first typical symptom of a gallbladder problem is pain in the right side of the upper abdomen. Sometimes the pain is experienced in the center of the abdomen just below the breastbone, in the back between the shoulder blades, or even as referred pain in the right shoulder.

Gallstone pain may last several minutes to a few hours. Gallstone pain also can cause nausea and vomiting along with a fever and loss of appetite. If a gallstone seriously blocks the bile duct, it can cause jaundice, a yellowing of the skin and whites of the eyes.

Gallstone pain can resolve and never recur. But when the problem persists, removal of the gallbladder, also known as a cholecystectomy, may be needed. This is one of the most commonly performed medical procedures in the United States today. Obviously, we can survive without a gallbladder, but it does have a beneficial function in the body.

Question: What does the gallbladder do?

Answer: This small organ collects bile produced by the liver and stores the bile until needed to aid in the digestion of dietary fat. When a person consumes a meal with fat, the gallbladder squirts bile through a tube into the small intestine. Here the bile functions like a soap or detergent to disperse fat into tiny particles that can more easily be digested and absorbed. This includes essential fatty acids required for many functions in the body.

Q: Who is most likely to have gallstone problems?

A: Research indicates that many things are linked to the risk of developing gallstones and related problems. Genetic predisposition, indicated by a family history of gallstones, increases risk. Additionally, women are two to three times more likely to develop gallstones than men.

Q: What causes gallstones?

A: Gallstones develop slowly over time due to components of bile-forming crystals that enlarge and become "stones." Stone formation is more likely to occur when bile is more concentrated and does not regularly move out of the gallbladder. This can occur when people have a low-calorie diet, especially when the diet is low in fat. Fat in a meal is what stimulates the gallbladder to contract and move bile along into the intestine. One study indicated that it required 10 to 20 grams of fat in a meal to trigger maximal gallbladder emptying.

Q: Why are women more likely to develop gallstones?

A: One factor may be that women are more likely to consume low-calorie and low-fat diets for weight control. However, another major factor is iron status. Both animal and human studies have shown that iron deficiency increases gallstone development by increasing the concentration of bile and slowing the normal flow of bile out of the gallbladder.

Since the iron requirement for women during their reproductive years is more than twice that of men, women are much more likely to run low on iron. A low-fat diet and avoidance of foods with readily absorbed iron (like lean red meat) could provide the conditions that promote gallstone formation, especially in those with a genetic predisposition to stone development.

Much of today's popular health media has implied that dietary fat and iron are major causes of health problems. They have forgotten that people need to consume all of the essential nutrients regularly in adequate amounts to maintain health.

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