



## Gallstones/Diet for Gallstones

These are either cholesterol, or made of pigments, salts and other chemicals formed in the gallbladder. The gallbladder is a pear-shaped organ that rests under the liver in the right upper abdomen. The gallbladder stores bile that is produced by the liver and releases it into the intestine by contracting periodically. Bile (a yellow liquid) helps digest fats and oils in the intestine. Bile is composed of a lot of chemicals including cholesterol, salts and certain pigments. The gallbladder absorbs water from the bile making it thicken and eventually forming crystals which become gallstones.

### Who has the tendency to develop gallstones?

- Middle aged white females
- 30% of all men and women by age 60
- Any one, at any age under certain conditions can develop gallstones

Heredity, age and diet are probably all important factors. Certain Indian tribes have 100% incidence by middle age. Asian and African people have low incidence. Losing weight very rapidly produces stones in some people.

### Symptoms

- Colic
- Cholecystitis (gallbladder inflammation)
- Yellow jaundice

Many patients with gallstones never experience any symptoms.

### Colic

Colic is pain that usually occurs in the upper middle or right side of the upper abdomen. Colic pain usually occurs after meals when the gallbladder contracts. During this contraction process, gallstones can lodge in the outlet neck of the gallbladder or even in the main bile duct to the intestines. This pain could last for a few minutes to several hours.

### Cholecystitis (Gallbladder Inflammation)

Occasionally the stones irritate the gallbladder to such an extent that active and acute inflammation results. This condition produces steady, dull and usually severe pain in the upper abdomen. This is a serious condition.

### Yellow Jaundice

When gallstones become permanently lodged in the main bile duct, the bile flow is blocked and can't reach the intestine. At the same time bile spills into the blood. The skin turns yellow, the urine dark and perhaps, the stool white.

### Diagnosis

Ultrasound or sonography exam provides a simple, quick method. Sound waves are beamed into the gallbladder. Another way is evaluate gallbladder function by hepatobiliary scan. A small amount of radioactive material is injected by vein which concentrates in the gallbladder. An agent is then given by IV that causes the gallbladder to contract and empty. The wellness of the contraction indicates gallbladder disease.

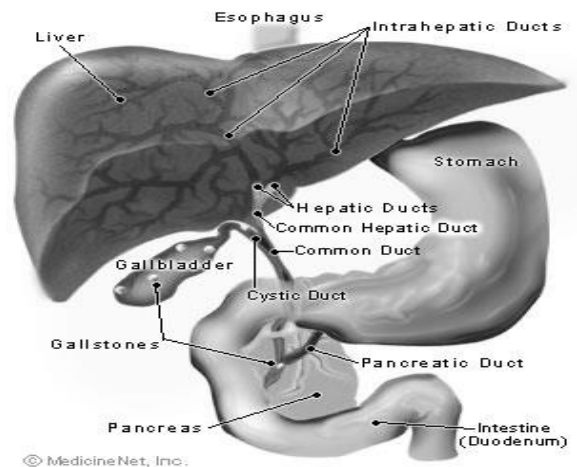
### Treatment

- Because many patients with gallstones never develop symptoms, watchful waiting is often indicated.
- Removing the gallbladder through laparoscopic surgery.
- Using drugs to dissolve cholesterol gallstones. Complete dissolving may take 6 months to a year.

### Prevention

Do not lose more than 3 pounds per week especially using low calorie liquid fasting diets. Increase fiber in the diet, vitamin C (no more than 500mg a day) and drink caffeinated coffee. Regular recreational and physical activity such as vigorous walking, aerobics seem to help.

- Indigestion for fatty foods



### Gallstones with Biliary Colic

**The abdominal pain that you have today is due to spasm of the gallbladder.** The gallbladder is a small sack under the liver which stores and releases bile. Bile is a fluid that aids in the digestion of fat. A gallstone may form inside the gallbladder and block the flow of the bile fluid. This causes mild to severe cramping pain in the mid or right upper abdomen with nausea and vomiting.

### Home Care:

- 1) Rest in bed and follow a clear liquid diet until the pain, nausea and vomiting go away. If medicine was given to help with your symptoms, take these as directed.



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- 2) Fat in your diet makes the gallbladder contract and may cause increased pain. Therefore, avoid fat in your diet over the next two days and follow a low-fat diet after that. If you are overweight, a low-fat diet will also help you lose weight.

### Follow Up:

There is a 50% chance that you will have another episode of pain from your gallstones during the next 2 years. Removal of the gallbladder is the treatment of choice to prevent this. Other symptoms' such as bloating, and belching or fatty food intolerance may not be relieved by this operation. Schedule an appointment with your own doctor during the next week to discuss the treatment options.

### Return Promptly:

Or contact your doctor if any of the following occur:

- 1) Repeated vomiting
- 2) Pain lasts over six hours
- 3) Fever over 99.5°F (37.5°C) oral, chills
- 4) Weakness, dizziness or unusual drowsiness
- 5) Dark urine or light colored stools
- 6) Yellow color of the skin or eyes
- 7) Chills

### Low Fat Diet:

A low fat diet will help you lose weight. It also can lower cholesterol and prevent symptoms of gallbladder disease. The average American diet contains up to 50% fat. This means that 50% of all calories come from fat (80-100 grams of fat per day). Choosing normal portions of food from the list below can lower your fat intake to 25-40 grams of fat per day. This means 10-20% of calories come from fat. The remaining 80-90% of calories comes from protein and carbohydrate. This is much healthier for you.

<b>Low Fat Diet</b>	<b>OK:</b>	<b>Avoid:</b>
<b>Beverages:</b>	Nonfat milk, coffee, tea, carbonated beverages.	Whole and low-fat milk, evaporated milk and condensed milk, hot chocolate mixed, milk shakes, malts and eggnog.
<b>Bread:</b>	White, whole wheat, rye bread, graham or soda crackers, Melba toast, plain rolls, bagels.	Rolls and bread containing whole milk and/or egg, waffles, pancake, biscuits, and corn bread, cheese crackers, other flavored crackers, pastries, doughnuts, and wheat germ.
<b>Cereal:</b>	Oatmeal, whole wheat, bran, multi grain, and rice	Granola or others containing oil or coconut or more than 2 Grams of fat per serving.
<b>Desserts:</b>	Gelatin, water ices, angel food cake, puddings or sherbet made with non-fat milk, meringues and non-fat yogurt.	Any other commercially prepared desserts or desserts containing fat, whole milk, and cream, chocolate and coconut.
<b>Fats:</b>	Up to 3 teaspoons of fat daily. This can be in the form of butter, margarine, mayonnaise or vegetable oil.	Cream, non-dairy creams, gravies and cream sauces.
<b>Fruits:</b>	All fruits prepared without fat.	Avocado, coconut, and olives.
<b>Meats:</b>	Beef, lamb, pork, fresh fish, and canned fish packed in water; chicken and turkey with the skin removed. Limit meat to 6 oz daily (boiled, roasted, baked or boiled). Select only lean cuts, with the fat trimmed off.	Fried meats, fish, poultry, fried eggs and fish canned in oils, fatty meats such as bacon, corned beef, hot dogs, luncheon meats, or meats with gravies and sauces.
<b>Cheese and Eggs:</b>	Cheeses labeled "Low-fat"; 3 whole eggs per week, egg whites (Eggbeaters) as desired.	All other cheeses.
<b>Potatoes, Beans, and Pasta:</b>	Dried beans, split peas, lentils, potatoes, rice, macaroni, noodles, spaghetti prepared without added fat.	Fried potatoes, potato chips, potatoes prepared with butter, cream or cheese.
<b>Soups:</b>	Bouillon or both soups without fat, low-fat milk, soups with vegetable are allowed.	All other soups.



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<b>Vegetables:</b>	Fresh, frozen, canned or dried vegetables, all prepared without added fat.	Fried vegetables and those prepared with butter, or cream sauces.
<b>Miscellaneous:</b>	Salt, sugar, jelly, hard candy, marshmallows, honey, syrup, spices, herbs, mustard, catsup, lemon, or vinegar.	Chocolate, nuts, coconut, cream candies, olive, sunflower, sesame and other seeds, all fried foods, and all cream sauces and gravies.