

TOPIC: NUTRITIONAL CORRECTION FOR GASTROINTESTINAL TRACT AND CARDIOVASCULAR DISEASES

NUTRITION IN GASTROINTESTINAL TRACT DISEASES

Diet in diseases of the esophagus

Esophagitis is an inflammation of the lining of the esophagus, the tube that connects the throat to the stomach. If left untreated, this condition can become very uncomfortable, causing difficulty in swallowing and ulcers or scarring of the esophagus. Barrett's esophagus, a complication of acid reflux, is a risk factor for cancer of the esophagus.

Dietary recommendations. When esophageal lining is inflamed it is a good idea to avoid acidic and citric foods like oranges, tomatoes and grapes. Avoid drinking their juices too as it could aggravate the inflammation. Include cereal (cooked), puddings, protein shakes, and mashed potatoes in your diet. In short, eat foods that are cooked and/or mashed so that you can swallow easily.

Intake of fat, particularly fried food items, as the excess oil in them can aggravate the condition. Also fried food items are harder to chew and swallow.

Avoid caffeine.

This isn't strictly to do with diet, but it is a good idea to refrain from drinking alcohol and smoking as these can cause further damage.

Esophagitis can make it difficult to eat and swallow so it is best to break the three large meals of the day into several small meals through the day. It is imperative you eat slowly and chew thoroughly before you swallow the food to minimize irritation to the esophagus.

Drink plenty of water.

When acid from the stomach leaks up into the gullet (oesophagus), the condition is known as **acid reflux**. This may cause heartburn and other symptoms. A medicine which reduces the amount of acid made in your stomach is a common treatment and usually works well. Some people take short courses of medication when symptoms flare up. Some people need long-term daily medication to keep symptoms away.

Dietary recommendations. Avoid beverages that seem to trigger heartburn or make it worse, such as:

- Coffee or tea (both regular and decaffeinated), other beverages that contain caffeine.

- Carbonated beverages.

- Alcohol.

Avoid foods that seem to trigger your heartburn or make it worse, such as:

- Citrus fruits, such as oranges and lemons

- Tomatoes and products that contain tomatoes, such as tomato sauce

- Chocolate

- Mint or peppermint

- Fatty or spicy foods, such as chili or curry

- Onions and garlic.

Diet for peptic ulcer disease

A peptic ulcer is a defect in the lining of the stomach or the first part of the small intestine, an area called the duodenum.

A peptic ulcer in the stomach is called a gastric ulcer. An ulcer in the duodenum is called a duodenal ulcer.

Normally, the lining of the stomach and small intestines is protected against the irritating acids produced in your stomach. If this protective lining stops working correctly and the lining breaks down, it results in inflammation (gastritis) or an ulcer.

Most ulcers occur in the first layer of the inner lining. A hole that goes all the way through the stomach or duodenum is called a perforation. A perforation is a medical emergency.

The most common cause of such damage is infection of the stomach by bacteria called *Helicobacter pylori* (*H. pylori*). Most people with peptic ulcers have these bacteria living in their gastrointestinal tract. Yet, many people who have these bacteria in their stomach do not develop an ulcer.

The following also raise your risk for peptic ulcers:

- Drinking too much alcohol
- Regular use of aspirin, ibuprofen, naproxen, or other nonsteroidal anti-inflammatory drugs (NSAIDs). Taking aspirin or NSAIDs once in a while is safe for most people
- Smoking cigarettes or chewing tobacco
- Being very ill, such as being on a breathing machine
- Having radiation treatments.

A rare condition called Zollinger-Ellison syndrome causes stomach and duodenal ulcers. Persons with this disease have a tumor in the pancreas. This tumor releases high levels of a hormone that increases stomach acid.

Many people believe that stress causes ulcers. It is not clear if this is true, at least for everyday stress at home.

Small ulcers may not cause any symptoms. Some ulcers can cause serious bleeding. Abdominal pain is a common symptom, but it doesn't always occur. The pain can differ from person to person.

Other symptoms include:

- Feeling of fullness - unable to drink as much fluid
- Hunger and an empty feeling in the stomach, often 1 - 3 hours after a meal
- Mild nausea (vomiting may relieve this symptom)
- Pain or discomfort in the upper abdomen
- Upper abdominal pain that wakes you up at night
- Bloody or dark tarry stools
- Chest pain
- Fatigue
- Vomiting, possibly bloody

- Weight loss.

It is generally recommended to eat small, frequent meals throughout the day, since the stomach should not be overwhelmed and should have time to heal itself. All acid-inducing foods should be avoided as well, since acidity can irritate the ulcer, cause more pain, and prolong healing time. Sometimes, mild, liquid meals, such as vegetable and fruit smoothies, can be ingested in place of solid foods.

What to eat

Generally, dietary fiber is extremely important in maintaining optimal gastrointestinal health, and may help with the recovery of peptic ulcers. Some foods high in fiber include:

- Fresh fruits and vegetables
- Whole grain breads, tortillas, rolls
- Oatmeal
- Barley
- Popcorn without butter or additives

Not only do fresh fruit and vegetables provide tons of fiber, they are also a great source of important vitamins, minerals and antioxidants your body will need to heal ulcers. However, be careful to steer clear of citrus fruits, as the acidity in such fruits may irritate and worsen the ulcer.

Flavonoids are potent antioxidants that may help regulate *H. pylori* bacteria, which are the main culprits in stomach ulcer formation. An increased intake of foods rich in antioxidants can also be anti-inflammatory. Foods that are rich in flavonoids include:

- Apples
- Celery
- Cranberries
- Onion
- Garlic
- Green tea

What to avoid

For individuals affected with peptic ulcers, there are certain restrictions on diets. Generally, foods that are high in fat, high in acidity, or may cause food-related discomforts, such as heart burns, should be avoided for a more comfortable recovery. Some of the foods that may aggravate the symptoms and should be avoided include:

- Smoking: cigarette smoking increases the chance of getting a stomach ulcer. It also slows down the healing process and can worsen the condition.
- Spicy foods: Since spicy foods have a history of causing bowel problems for some people, it is best to steer clear of spicy foods if you are suffering from a stomach ulcer.
- Alcohol: Alcohol is inflammatory in nature, so it is best to keep away from these drinks until the ulcer is healed.
- Coffee: Whether caffeinated or decaffeinated, coffee is an acidic drink that may irritate the stomach lining.

- Carbonated beverages: Also acidic in nature, sodas and carbonated beverages should be avoided.
- Fatty foods: Foods high in saturated and trans-fats, such as fatty cuts of red meat and buttery pastries, are inflammatory in nature.
- Citruses and their juices: citrus fruits, such as lemons, oranges, grapefruits, tangerines, and limes are higher in acidity than other fruits. Hence, it is better to avoid acidic fruits to reduce the risk of irritation.

Diet for pancreatitis

Causes of pancreatitis are different, but the most common is overeating, especially the abuse of oily and spicy food and alcohol on the background of existing functional disorders of the gastrointestinal tract. Women suffer more than men.

Set meals are included in the diet during exacerbation reminds diet used during exacerbation of peptic ulcer disease, with the only difference being that in pancreatitis using less milk and also restrict eating eggs.

Diet in chronic diseases of the gallbladder and liver

The combination of a "civilized" diet, of saturated fats, fried foods, hydrogenated (or fake) fats and white sugar, white flour, highly-processed, nutrient-stripped food, along with a sedentary lifestyle tends to create an environment ripe for the formation of gallstones or other gallbladder problems.

Eating too many of the wrong fats puts you at risk, but people who eat no fat at all are also at risk. No fat in the diet means that the gallbladder works less frequently, which could cause stasis and bile thickening. Moderate amounts of the right fats, such as olive oil, are much better.

For a diet characterized by a sufficient number of high-grade protein contained in milk and dairy products, fish and meat, fruits and vegetables - sources of plant fibers (cellulose) and various vitamins - A, C, B, etc., especially needed by the body for liver.

Chronic cholecystitis is often accompanied by *constipation*, in this case allowed fresh and mashed carrots, boiled beets, cauliflower dish, pumpkin, zucchini, roasted and fresh apples. In constipation useful fruit and vegetable juices, figs, dates, prunes, grapes, fresh plum. If not allowed fresh fruit (with concomitant exacerbation of peptic ulcer disease), can be used dried.

DIET IN CARDIOVASCULAR SYSTEM DISEASES

Diseases of the cardiovascular system, and is primarily coronary heart disease and hypertension are the leading cause of death and disability population. These plagues and associated atherosclerosis, largely depend on the diet.

Cardiovascular disease (CVD) refers to any disease that affects the cardiovascular system, principally cardiac disease, vascular diseases of the brain and kidney, and peripheral arterial disease. The causes of CVD are diverse but atherosclerosis and/or hypertension are the most common.

Evidence suggests a number of risk factors for heart disease: age, gender, high blood pressure, high serum cholesterol levels, tobacco smoking, excessive alcohol consumption, sugar consumption, family history, obesity, lack of physical activity, psychosocial factors, diabetes mellitus, air pollution. While the individual contribution of each risk factor varies between different communities or ethnic groups the consistency of the overall contribution of these risk factors to epidemiological studies is remarkably strong. Some of these risk factors, such as age, gender or family history, are immutable; however, many important cardiovascular risk factors are modifiable by lifestyle change, drug treatment or social change.

The worldwide CVD (in both children and adults) point to a high-fat, high-calorie diet and a sedentary lifestyle. Poverty increases the risk for poor dietary habits and poor access to healthful foods. Many of the world's urban poor have more access to highly processed foods, convenience foods, and fast foods than to fresh fruits and vegetables. But even in the most wealthy and technologically advanced countries, the affluent are choosing to eat more fast foods and processed foods that are high in fat, cholesterol, and sodium. For optimal health and prevention of *atherosclerosis* and *hypertension*, health professionals recommend:

- Limiting polyunsaturated fats to 10 percent of calories. Polyunsaturated fats come primarily from vegetable oils (e.g., corn oil, safflower oil).
- Limiting monounsaturated fats to 10 percent of calories. Monounsaturated fats may have a protective role in heart disease. Excellent sources of monounsaturated fats include olive oils, nuts, avocado, and canola oil.
- Increasing intake of omega-3 fatty acids. Two to four grams daily of omega-3 fatty acids may lower risk for CVD by reducing blood clotting, making platelets less sticky, and lowering triglycerides. Excellent sources of omega-3 include fatty fish (such as salmon and sardines), fish oils, and flax seed.
- Limiting sodium intake to 2,400 milligrams per day.
- Increasing potassium intake to at least 3,500 milligrams per day.
- Eating at least five servings a day of fruits and vegetables.
- Eating a plant-based diet consisting primarily of whole grains, fruits, and vegetables is also recommended.
- Eating at least 25 grams of fiber daily.
- Eating 25 grams of soy protein daily.

Excess sugar in the daily diet contributes to the development of atherosclerosis and inhibits fluid in the body, so with hypertension should not be abused sweets. Well affect metabolism in hypertension iodine products: fish, squid, shrimp, seaweed.