Purine-restricted Diet

Definition

Purines are compounds formed naturally in the body or found in certain foods.

General information

When purine is broken down in the body, uric acid (a waste product) is produced. When there's too much uric acid in the blood, the condition is known as hyperuricemia. Hyperuricemia can have many causes and may develop when there's an increased production of uric acid in the body or a reduction in the amount of uric acid excreted from the body. Food containing purines may also play a role.

Hyperuricemia may lead to gout (a disorder that causes sudden, recurring attacks of painful arthritis). Hyperuricemia may also contribute to other medical conditions, such as the formation of uric acid kidney stones.

Dietary changes

Although medication is the major treatment for gout, a purine-restricted diet may help you decrease the uric acid salts in your blood by up to 15 percent. A high-carbohydrate, low-fat diet (50 to 55 percent of calories and 30 percent of calories, respectively) will also help your body get rid of uric acid. If your doctor recommends dietary restrictions, avoid foods containing 150 milligrams or more of purines per 100-gram (roughly 3 ounce) serving. Eat no more than 3 ounces of lean meat per meal. You may need to drink 2 to 3 quarts of liquids every day, but keep alcohol consumption to a minimum. Or, your doctor may advise you to avoid alcohol completely. It's often helpful to wait a few hours after a big meal before going to sleep. Finally, maintain a healthy weight proportional to your size. If you're overweight, keep in mind that it's best to lose weight gradually. Avoid fasting or extremely low-calorie diets.

Food concentrations of purines

Group A: On a purine-restricted diet, avoid foods with high purine concentrations (more than 150 milligrams of purines per 100-gram serving -- approximately 3 ounces). For example:

- scallops
- sardines
- anchovies
- herring
- mackerel
- liver
- beef kidney
- brain
- meat extracts
- sweetbreads (organs of young animals, such as thymus or pancreas)
- game meat

Group B: Foods and beverages with moderate purine concentrations (50 to 150 milligrams of purines per 100-gram serving -- approximately 3 ounces) are allowed in moderate amounts on a purine-restricted diet. For example:

- poultry
- meat and fish other than those mentioned in group A
- meat gravies or soups made with meat stock
- whole-grain breads and cereals, oatmeal and wheat germ
- baker's and brewer's yeast
- asparagus
- cauliflower
- mushrooms
- spinach
- green peas
- dried beans
- dried peas
- lentils
- peanut butter
- nuts

Group C: Foods and beverages with low purine concentrations (less than 50 milligrams of purines per 100-gram serving -- approximately 3 ounces) are recommended in a purine-restricted diet. For example:

- skim or 1 percent milk
- low-fat cheese
- low-fat yogurt
- ice milk
- eggs
- refined cereals and breads (avoid high-fat breads such as biscuits or muffins, however)
- spaghetti, macaroni and other types of pasta
- potatoes
- rice
- barley
- vegetables other than those mentioned above (limit avocados due to fat content, however)
- vegetable soups
- fruits, fruit juices and fruit drinks
- plain cookies
- angel food cake
- flavored gelatin
- tapioca, custard and pudding
- herbs and spices
- coffee
- tea
- chocolate and cocoa
- carbonated beverages

Sugar, sweets, butter, margarine, oil and other fats are also low in purines and may be included in moderation in a healthful, low-purine diet.

Medications

Certain medications may increase the level of uric acid in your blood, including low doses of aspirin, pyrazinamide (for tuberculosis) and thiazide diuretics (for high blood pressure). Because certain medications may be needed for various reasons, consult your doctor before making any medication changes if you're on a purine-restricted diet.

Updated 9/22/03

References

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Source: https://www.healthforums.com/library/1,1258,article~4575,00.html