

Low Copper Diet For Wilson's Disease



www.gicare.com

Purpose

Wilson's disease is a hereditary disorder in which the body retains too much copper. Copper is a trace mineral in the body. This means it is essential for good health, but only a tiny amount is needed. When excess copper accumulates, it is stored in the eyes, brain, kidneys, and liver. Excess copper collecting in the liver causes cirrhosis of the liver, which is a serious, life-threatening condition. However, Wilson's disease is treatable.

Copper is found in different amounts in a wide variety of foods. Therefore, dietary restriction alone is usually not enough to control Wilson's disease. Medicines such as Cuprime and Depen (generic name: D-penicillamine) and Syprine (generic name: trientine) are used to help excrete excess copper with the urine. Still, it is helpful to avoid copper-rich foods as much as possible. The dietary intake of copper should be less than 1.0 mg per day.

Nutrition facts

A low copper diet is generally adequate in all the nutrients necessary for good health. However, patients taking D-penicillamine may develop a deficiency of vitamin B-6 (pyridoxine), and the physician may prescribe a supplement of 25 mg daily.

Special Considerations

1. The copper content in a specific food can vary depending on a number of factors. The copper content and the location of the soil in which the food was grown, or the method used to process the food, for example, can affect how much copper is in the food when eaten. In general, the low copper diet is meant to restrict foods that are usually high in copper, especially organ meats, shellfish, dried beans, peas, whole wheat, and chocolate.
2. Drinking water should be analyzed because it may contain too much copper. If the water contains more than 100 micrograms per liter, then bottled demineralized water should be used. This water should contain only 1 microgram of copper per liter. Demineralized water and distilled water are processed differently and may not contain the same amount of copper. Check with the physician or registered dietitian for more information.
3. Avoid drinking alcohol. It can be harmful to the liver, and the liver may already be damaged from Wilson's disease.
4. Read food labels; some prepared foods list the copper content. Always check the labels of vitamin/mineral supplements to see if they contain copper.
5. For better control of copper intake, choose only average portions or serving sizes of foods. Examples of average portions are 3 to 4 oz of meat, fish, or poultry; 1/2 cup of vegetables; one slice of bread.
6. Do not use copper cooking utensils.
7. Patient's with Wilson's disease should have initial and periodic consultations with a registered dietitian to make sure copper in the diet is being adequately controlled.

Low Copper Diet

	Eat as Desired Foods low in copper -- less than 0.1 mg/portion.	6 Portions/Day	Avoid
Meat & meat substitute	beef; eggs; white meat turkey and chicken; cold cuts and frankfurters that do not contain pork, dark turkey, dark chicken, or	all fish except shellfish 3 oz, dark meat turkey and chicken 3 oz, peanut butter 2 Tbsp	lamb; pork; pheasant quail; duck; goose; squid; salmon; organ meats including liver, heart, kidney, brain; shellfish including oysters, scallops,

	organ meats; all others not listed on high or moderate list		shrimp, lobster, clams, and crab; meat gelatin; soy protein meat substitutes; tofu; nuts and seeds
Vegetables	most vegetables including fresh tomatoes	bean sprouts 1 cup; beets 1/2 cup; spinach 1/2 cup cooked, 1 cup raw; tomato juice and other tomato products 1/2 cup; broccoli 1/2 cup; asparagus 1/2 cup	vegetable juice cocktail, mushrooms
Fruits	most fruits except as listed to right Fruits dried at home are permitted	mango 1/2 cup, papaya 1/4 average, pear 1 medium, pineapple 1/2 cup	nectarine, commercially dried fruits including raisins, dates, prunes; avocado
Starches - breads & grains	breads & pasta from refined flour, rice, regular oatmeal, cereals with <0.1 mg of copper per serving (check sweet potatoes, all others not listed on high or moderate list	whole wheat bread 1 slice, Melba toast 4, whole wheat crackers 6, instant oatmeal 1/2 cup, instant Ralston™ 1/2 cup, cereals with 0.1 to 0.2 mg of copper per serving (check label), dehydrated and canned soups 1 cup,	dried beans including soy beans, lima beans, baked beans, garbanzo beans, pinto beans; dried peas; lentils; millet; barley; wheat germ; bran breads and cereals; cereals with >0.2 mg of copper per serving (check

		potatoes in any form 1/2 cup or small, pumpkin 3/4 cup, parsnips 2/3 cup, winter and summer squash 1/2 cup, green peas 1/2 cup	label); soy flour; soy grits; fresh sweet potatoes
Fats, oils	butter, cream, margarine, mayonnaise, non- dairy creamer, sour cream, oils, salad dressings (made from allowed ingredients)	olives 2 med	
Milk & milk products	Most milk products, milk flavored with carob, cheeses, cottage cheese	all others	chocolate milk, soy milk, cocoa
Sweets & desserts	most sweets; jams, jellies, and candies made with allowed ingredients; carob; flavoring extracts	licorice 1 oz, syrops 1 oz	desserts that contain high amounts of ingredients rich in copper; candy with nuts, chocolate, or cocoa
Beverages, liquids, misc.	coffee, tea, fruit juices, fruit-flavored beverages, lemonade, soups	Postum™ and other cereal beverages 1 cup, carbonated beverages 12 oz,	instant breakfast beverages, mineral water, soy-based beverages, copper-

	made with allowed ingredients	ketchup 2 Tbsp, dehydrated and canned soups	fortified formulas, brewer's yeast, multiple vitamins with copper or minerals
--	-------------------------------	---------------------------------------------	-------------------------------------------------------------------------------

Sample Menu

Breakfast	Lunch	Dinner
<ul style="list-style-type: none"> • grapefruit <i>1/2 cup</i> • scrambled egg <i>1</i> • white toast <i>1 slice</i> • margarine <i>1 tsp</i> • skim milk <i>1/2 cup</i> • coffee <i>1 cup</i> • salt/pepper 	<ul style="list-style-type: none"> • white bread <i>2 slices</i> • roast beef <i>2 oz</i> lettuce tomato mayonnaise <i>1 Tbsp</i> • carrot sticks <i>6</i> • fresh orange <i>1</i> • skim milk <i>1/2 cup</i> 	<ul style="list-style-type: none"> • chicken breast <i>3 oz</i> • rice <i>1/2 cup</i> • green beans <i>1/2 cup</i> • margarine <i>1 tsp</i> • white bread <i>1 slice</i> • jelly <i>1 tsp</i> • apple <i>1</i> • lemonade <i>1 cup</i> • salt/pepper

This Sample Diet Provides the Following

Calories	1520	Sodium	1500 mg
Protein	69 gm	Potassium	2150 mg
Carbohydrates	191 gm	Copper	0.68 mg
Fat	54 gm		