# ZINC DEFICIENCY

The toxic effects from high level of copper in plasma, liver, brain and other organs is known as Wilson's disease.

## CAUSES

• It is a genetic disorder in which the liver is unable to excrete the metal copper and thereby it accumulates, in the system.

## **DIETARY MANAGEMENT**

- 1) Avoid:
  - Avoid foods that are high in copper:
    - meat gelatin, lamb; pork; pheasant quail; duck; goose; squid; salmon; organ meats including liver, heart, kidney and brain.
    - Sea food: shellfish including oysters, scallops, shrimp, lobster, clams, and crab.
    - soy and soy substitutes, nuts and seeds, beans, legumes; whole grain, wheat germ, almonds, broccoli, garlic; bran breads and cereals; fresh sweet potatoes and sea plants.
    - Dried beans including soy beans, lima beans, baked beans, garbanzo beans, pinto beans; dried peas; lentils; millet; barley.
    - Vegetable juice, cocktail, mushrooms.
    - Nectarine, commercially dried fruits including raisins, dates, prunes, avocado.
    - Chocolate and some kind of beers are rich in copper.
    - The dietary intake of copper should be less than 1.0 mg per day.
  - Avoid cooking in copper vessels.
  - Avoid drinking alcohol. It can be harmful to the liver, and the liver may already be damaged from Wilson's disease.

### CONSUME

- a. Increase intake of vitamin B6: Patients under treatment of D- penicillamine, develops deficiency of vitamin B-6 (pyridoxine).
  - i. You can take a vitamin B6 supplement of 25 mg daily.
  - ii. Brewers yeast is very good source of vitamin B6.
  - iii. Meats, live, fish, eggs and milk, beans, nuts, legumes and whole grains, sunflower seeds, eggs, walnuts and herring.
  - iv. Kidney, liver, pork, poultry, salmon, wheat germ and Avocado good source of vitamin b6 but are high in copper hence should be avoided.
- a. Read food labels; and check for copper content. Check labels of vitamin/mineral supplements to see if they contain copper.
- b. Analyze drinking water for copper content; if it contains more then 100 micrograms per liter, bottled demineralized water should be used. Water containing not more than 1 microgram of copper per liter can be consumed.
- c. Increase intake of zinc, it reduces copper levels:
  - i. Plant foods are low in zinc, whole wheat, meat, poultry and milk, sea food.

## **CONSULT PHYSICIAN**

a. Copper is present in almost all foods, hence only dietary restriction is not enough to control the disease. So consult your physician for the proper management of the disease. b. Regularly see your physician as regular monitoring of blood count, urine, and body temperature is needed along with the treatment.

NOTE : PLEASE CONTACT WITH YOUR DOCTOR FOR EXACT DIET FOR THE HEALTH PRBLEMS YOU HAVE.THIS A SAMPLE DIET CHART TO GET THE IDEA OF YOUR DAILY ROUTINE FOOD INTAKE TO MAKE YOUR LIFE HEALTHY .