

## OCCUPATIONAL HEART DISEASE

Carbon disulfide accelerates arteriosclerosis and coronary heart disease. Used in the rubber and viscose rayon industry. Also as a degreasing agent and in the production of carbon tetrachloride and ammonium salts. Risk is 2.5 to 5-fold. Combines to produce thiocarbamates which complex trace minerals and cause enzyme competition. Lipid increases occur and hypothyroidism. Inhibition of dopamine b-hydroxylase. Renovascular hypertension has been reported.

Physical evaluation in chronic cases include microaneurysms and hemorrhages similar to diabetes. Presenile dementia and stroke have been reported.

Can't measure it in body fluids. Delayed filling in retinal arteries may be an early sign.

Most specific sign is microaneurysms in absence of diabetes.

OSHA recommends 4ppm TWA. There is evidence of reversibility of ocular changes with discontinuation of CS exposure.

Carbon monoxide-Can reduce the exercise tolerance in healthy workers, aggravate angina, and intermittent claudication. Acute can result in an MI. Chronic high levels can produce a congestive cardiopathy. At high risk are forklift operators, fire fighters, miners, mechanics, cigarette smokers (may have additive effect). Improperly vented kerosene or space heaters. Exposure to methylene chloride which breaks down to carbon monoxide. CO has 200 the affinity of O<sub>2</sub> for hemoglobin. A carboxyhemoglobin level of 20% is more profound than a 20% drop in erythrocytes. Chronic exposure such as in cigarette smoke is felt to be a prime factor in accelerating arteriosclerosis.