

Tuberculosis Awareness

Tuberculosis, an infection of the lungs, remains the second leading cause of death in the world. The disease is spread when there is close contact with a person with active disease. The bacteria are carried by droplets expelled from the respiratory tract of the ill person when they cough, sneeze, sing, or speak. When the droplets are large they do not remain in the air and do not cause disease. The very small droplets float in the air and maybe inhaled by those nearby. Exposure to the drying action of the air and sun quickly kills the bacteria and limits the spread of the disease.

Tuberculosis was also known as consumption during the 19th century and was the cause of death in one out of every seven people in the United States and Europe. Each year 8 million people around the world become ill with tuberculosis and on average one person dies of the disease every 15 seconds. Tuberculosis accounts for more than one quarter of all preventable adult deaths in developing countries. Tuberculosis can be cured when the disease is recognized and appropriate treatment is available.

The *Mycobacterium tuberculosis* is a slow growing organism and it may take the body several weeks to develop sensitivity to the skin test after exposure to the disease. Symptoms of the disease also develop slowly and patients may be very ill before they know that there is a problem. Early symptoms include fatigue, weight loss, fever, and night sweats. Cough and chest pains are symptoms of advanced disease.

Many people think that tuberculosis is a disease of the past in developed countries. The disease and deaths from the disease have become less common and these events usually do not come to the notice of the public. The year 2000 goal for the United States was to have 3.5 or fewer cases per 100,000 population. This goal was met by 22 states. Missouri narrowly missed meeting the goal. The rate of illness in the States ranged from less than one case to more than 17 cases per 100,000 population. In 2000, there were 16,377 cases of disease reported in the United States, a 7% decrease from the year before. The number of cases has declined for eight consecutive years.

Many more people become infected than develop active disease because their body's immune system is able to contain the bacteria at the time of exposure. The persons who are exposed and become infected without becoming ill have latent TB infection (LTBI). This is a condition determined by a positive skin test. There are an estimated 10-15 million persons in the United States with LTBI and about 10% may develop the illness at some point in their lives. A major public health effort to reduce the cases of tuberculosis and thus prevent the spread of the disease is to encourage physicians to treat persons with positive skin tests. Taking preventive medication greatly reduces the chance of developing the disease later in life when the patient's resistance may have decreased.

Members of the following groups are considered high risk for this disease; the elderly and nursing home residents, alcoholics and drug abusers, health care workers or employees of correctional facilities, inmates of correctional institutions, the homeless and the medically under-served population, former residents of countries with a high TB incidence rate, and

persons who have symptoms of the disease. Tuberculin skin testing is recommended for screening for persons in high-risk groups.

Persons who are infected with both HIV, the virus that causes AIDS, and the tuberculosis bacteria have a very high risk of developing the disease if they are not on preventive medication. There was an increase in active disease from the mid-1980s until the trend reversed in 1993. Improved treatment and prevention programs for HIV infected persons and wider screening and therapy for other people who are considered at high risk is credited with the reversal of the trend.

World TB Day is observed each March 24, the anniversary of Dr. Koch's announcement of his discovery of the TB bacillus in 1882. It is not a day of celebration but a day to raise awareness of tuberculosis, an illness that remains a serious public health problem. The World Health Organization and the International Union Against TB and Lung Disease started the observing of World TB Day in 1982.