

Show Me Health – March 15, 2011- TB

World TB Day is March 24th. The international health community uses this day to raise public awareness about tuberculosis (TB) and the continuing threat it presents. In the past, the theme has included goals of diagnosis and prevention of this deadly disease. This year, the goal is to work toward the elimination of TB. This would mean eliminating a disease that has been killing people since ancient times. This modern killer has even been found in mummified human remains.

In the United States, the diagnosis of active disease cases is at an all time low. Still, 10 to 15 million people in our country are infected and 5 to 10% will develop active disease. Those with underlying illness, such as diabetes or HIV, are at increased risk for active disease.

Globally, one third of the population is infected with TB. This is an important reason for the United States to remain active in this fight. In 2008, 59% of the TB diagnosed in the US was in our foreign born population. In 1998, it was 42%.

Missouri had 60 TB disease cases in 2009 and just over 100 in 2010. From 2005 to 2009, 39 people in Missouri died due to TB. While Livingston hasn't had an active disease case for a few years, we do average about 3 infection cases yearly. The Livingston County Health Center provides TB disease and infection case management with the support of the Missouri Department of Health & Senior Services. Although this can be handled in the private sector, we are ultimately responsible for ensuring that adequate, appropriate diagnostic and treatment services are available and for monitoring and reporting the results of therapy. We work closely with physicians to achieve a successful outcome for the patient.

Eliminating TB means appropriate testing of high risk people and appropriate treatment of those with latent TB infection and those with TB disease. The difference is important. TB is caused by the bacteria *Mycobacterium tuberculosis*. These tiny germs are propelled into the air by coughing, sneezing and even laughing. The tiniest of these particles hang in the air. Transmission occurs when the particles are inhaled.

Not everyone who inhales these particles gets sick right away. Some only become infected, which is known as latent TB infection. The bacteria walls off in your body, usually the lungs, and is waiting. This person is not sick, does not cough and cannot give TB to anyone. Their chest x-ray is normal. Their TB skin test is not. This person has a low chance of developing TB disease with a year, if not treated. Treatment is generally arranged through the county health department and is recommended to prevent TB disease that can develop when your immune system wanes due to disease or age or both.

If the exposure results in the development of TB disease, the symptoms include coughing, fever, unexplained weight loss, loss of appetite, night sweats, coughing up blood, chest pain and unusual fatigue. At this point, the patient is coughing out infectious germs and is exposing the people around him to TB. While these patients often start out in a hospital, public health is still involved.

TB is a curable disease that continues to be a killer. Modern society sometimes discounts the threats of ancient diseases because diagnosis and treatment are so effective. But until TB is eliminated, we continue to have a killer in our midst.