

Tuberculosis (TB)

Cause: A bacteria. Types include: *Mycobacterium tuberculosis avium*, *M. tuberculosis bovis*, these are bacteria.

Occurrence in Animals: *M. tuberculosis avium* (birds, pigs, sheep), *M. tuberculosis bovis* (cattle, dogs, pigs), *M. tuberculosis* (humans), *Mycobacterium marinum* (fish). The human form can be transmitted to nonhuman primates, cattle, dogs, pigs and psittacine birds. The TB eradication program has virtually eliminated the disease in US cattle with the exception of a few well-defined areas.

Source of Infection in Animals: Saliva, or contaminated tissues

Transmission: Inhalation of infectious aerosols (airborne droplets) from sneezing, contact with surfaces contaminated with spit, or contaminated tissue contact during necropsy or tissue collection.

Observable Signs of Infection:

Animals:

- Asymptomatic (no outward observable signs) in early stages
- Fever, progressive weight loss, cough and other respiratory signs.
- In fish: loss of appetite; fish remains in seclusion and out of sight; rapid breathing; eyes appear to be cloudy or "popping out"; fish lies on its side near bottom of aquarium; stomach of fish appears to be sunken; whitish blotches on exterior; degraded and frayed fins

Humans:

- Productive cough, fever, chills, night sweats, appetite loss, weight loss, decreased weight/body mass, bloody sputum (phlegm), chest pain.
- Infections in sites other than the lungs can also occur in; the brain (meningitis); lymph nodes; bones; spine (Pott's disease)

Precautions:

- Good personal hygiene:
 - **WASH HANDS** after handling animals
 - No eating, drinking, smoking etc around animals and their environments.
- Do not drink raw, unpasteurized milk.
- Isolation and quarantine of suspect animals
- Wear gloves, face mask (e.g., N-95 respirator), goggled or face shield, and overalls when working with potentially infected animals.
- If an employee works with animals infected experimentally with *Mycobacterium spp* (e.g. birds, fish), specific precautions must be adopted as determined by EHSS.
- Regular surveillance (TB testing) of individuals at increased risk is done by EHSS.

Reference: Handbook of Zoonoses: Identification and Prevention; Colville JL and Berryhill DL, eds. Mosby. St Louis. 2007.

Additional Information:

<http://www.cdcnpin.org/scripts/tb/index.asp>