

## Fact sheet

# Non-Tuberculous Mycobacterial (NTM) Disease

### What are 'Mycobacteria'?

Mycobacteria are a family of germs that can cause disease in humans and animals. Within this family there are many species and the most famous is *mycobacterium tuberculosis* that causes Tuberculosis (TB) in humans.

Except for TB, most species are referred to as *non-tuberculous mycobacteria* (NTM). These can cause disease in humans and animals. The most common in our community is the *mycobacterium avium complex*, often termed MAC.

### What are non-tuberculous mycobacteria?

Non tuberculous mycobacteria (NTM) are found in the environment. These germs live in water and soil but do not affect most people. They are resistant to disinfectants and water treatment methods. NTM infections can occur from exposure to water aerosols, soil and dust. This can be by inhalation or ingestion or through breaks in the skin.

People who are more likely to develop NTM disease are those with:

- > lungs that have been damaged (e.g. emphysema, bronchiectasis, past TB)
- > a weakened immune system (e.g. from cancer, HIV infection or the use of immune-suppressing drugs)

NTM disease most commonly involves the lungs and the symptoms can be similar to TB. Symptoms often develop slowly and include:

- > cough with phlegm and sometimes blood
- > fever and night sweats
- > loss of appetite and weight loss
- > lack of energy

NTM disease can be found in other parts of the body especially in children under 5 years and people who are immune-suppressed. In children infection usually occurs in lymph glands in the neck. In people with HIV/AIDS the infection may occur throughout the body.

### How is it diagnosed?

Disease due to NTM can sometimes be difficult to diagnose and decide if treatment is necessary. Some people carry the germs in their lungs and stay well and are observed carefully without any treatment. The diagnosis is usually based on the combination of:

- > suspicious symptoms
- > chest x-ray or CT scan abnormalities suggestive of active disease
- > laboratory detection by culture of an NTM species from more than one sputum sample or a sample from the site of suspected disease outside the lung

As NTM disease of the lungs can appear quite similar to TB, the doctor may initially diagnose TB before the laboratory results are fully confirmed.

### How is it treated?

Treatment for NTM disease can be difficult and usually requires a combination of antibiotics for as long as 1-2 years. Side effects are common but most are not serious. Therefore regular monitoring is important. Sometimes surgery is used to remove a localised area of disease that is not responding well to drug treatment.

### Is NTM infection contagious?

NTM infections are not considered to be infectious between people. Man made changes to our environment are thought to be partly responsible in some cases e.g. the use of spa pools.

Information courtesy of Central Adelaide Local Health Network (CALHN). Please refer any questions about this information to your treating medical officer and/or nursing staff. The information contained within this publication does not constitute medical advice, and is for general information only. Readers should always seek independent, professional advice where appropriate. CALHN will not accept any liability for any loss or damage arising from reliance upon any information in this publication.

## For more information

**Royal Adelaide Hospital, Chest Clinic**  
**SA TB Services**  
**Telephone: (08) 7117 2967**  
**Monday-Friday, 8:45am-4:45pm**



Government  
of South Australia

SA Health