Mycobacterium Avium Complex (MAC)

About MAC
MAC is caused by a germ named mycobacteria. It is a common germ found in the environment, like water, dust and soil. MAC is often harmless to people with healthy immune systems, but infection can be serious for a person with a weak immune system.

Another name for MAC is DMAC, or disseminated MAC, meaning it spreads to the rest of the body. You may also hear the terms MAI or Mycobacterium Avium-Intracellulare.

Why People Get MAC
People with a weak immune system and/or infected with the human immunodeficiency virus (HIV) can get MAC. HIV infection injures the part of your body that fights off infection. The cells that fight off infection are called T cells or CD4 cells. If your immune system is weak, and you do not have enough CD4 cells to fight off the MAC, you may become very sick. MAC infection may last a long time, even with medicines for treatment.

Why am I at risk?
- HIV or other diseases that attack the immune system, may lower the number of T cells in your body. As your CD4 counts gets lower, your chances of infection increase. A normal CD4 cell count is 500 to 1600.
- MAC usually occurs when your helper T cell count is less than 100.
• You may hear MAC called an opportunistic infection (OI). OIs are illnesses caused by germs that are a problem to people with weak immune systems. Most OIs occur with a CD4 count of 200 or less.

**Signs of a MAC Infection**

First signs of infection are like the flu. MAC may start in the stomach or lungs. You may have one or more of these signs:

- Fever
- Fatigue
- Abdominal pain
- Muscle weakness
- Chronic Diarrhea
- Night sweats

As the infection progresses, you may have unintended weight loss and it can spread to other organs in the body. This is called "Disseminated" MAC. As it spreads, MAC may spread to the spleen, liver, lymph nodes and bone marrow. MAC is not spread from person to person. It is very important to identify MAC infection early to begin treatment. If you have any symptoms that do not go away, call your doctor.

**Testing for MAC**

The doctor will test a sample of your blood, urine, stool or sputum. You may need to have a "biopsy" (sample) of your bone marrow, lymph nodes, liver or spleen. These samples will be tested for the presence of the MAC infection.

**Treatment for MAC and Ways to Prevent MAC**

Medicines are available to treat MAC. Some people get better with drug therapy and others do not. Long term drug therapy is needed to treat MAC because this infection usually comes back.

- Take your medicines as ordered by your doctor. It is important that you take your medicine, even when you are feeling better.
- Call your doctor right away if you have any signs of MAC, if you notice signs getting worse or have new signs so treatment can be started.
- Keep your immune system healthy with a healthy diet and exercise.
- Avoid stress as you are able to keep your immune system healthier.