Sputum Induction (Aerosol)

If you have any questions, ask your care team.

Sputum is the mucous found in the lung. A sputum test can be helpful in detecting:

- Infection
- Tuberculosis (TB)
- Lung diseases

During the test, you will breath in an aerosol (mist). This makes it easier to cough up sputum. The care team will collect the sputum sample in a cup and send it for testing.

This test is done in the Northwestern Medicine Pulmonary Function Lab or a pulmonary clinic. It takes about 20 minutes.

Before the test

Since you will be coughing deeply, do not eat a heavy meal close to the test time. There is no other special preparation for this test.

On the day of the test, plan to arrive 15 minutes before your test time.

Wear loose-fitting, comfortable clothes. Do not wear anything that would be too tight around your chest or make it hard to breathe.

During the test

The care team will ask you to sit up right. You will inhale a saline mist through a filtered mouthpiece. The saline mist thins your secretions. It will irritate your airways so you can cough up the sputum. Then, the respiratory therapist will ask you to cough up sputum into a sterile cup.

If you cannot easily give a sputum sample, then the care team may use an aerosol medication known as albuterol. Albuterol widens your airways and relaxes the muscles in your lungs. This will help you produce sputum.

It is important to follow these guidelines during the test.

- Breathe in deeply when you inhale the saline mist.
- Do not to touch the inside of the sputum cup. It is sterile.
- Cough deeply every 5 minutes to bring up the sputum.

Once you have coughed up enough sputum in the cup, the care team will send it to the lab for testing.

After the test

Once the test is over, you may go home. You may go back to your normal diet and activities.

Your physician will get the test results. This may take a few days up to a few weeks depending on the type of sputum test you had. Your care team will let you know the results.

For more information about Northwestern Medicine, please visit our website at nm.org.
Developed by: Northwestern Memorial Hospital Pulmonary Function Lab

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