Byssinosis is an occupational lung disease that primarily affects workers in cotton processing and hemp or flax industries. Other names for byssinosis include Monday fever, brown lung disease, mill fever, or cotton workers’ lung.

**Learn About Byssinosis**

Byssinosis is a lung disease caused by occupational exposure to dust from cotton, hemp, or flax. These dusts cause lung disease by obstructing the small air tubes. Byssinosis can cause symptoms like asthma but may also cause more permanent lung damage similar to chronic obstructive lung disease.

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**Key Facts**

- Workers in the cotton processing and hemp or flax industries are affected.
- It causes an asthma-like breathing difficulty, usually at the beginning of the workweek and improves as the workweek progresses or dust exposure stops.
- Prolonged exposure may cause lung damage that resembles irreversible chronic obstructive lung disease.

**What Is Byssinosis?**

Byssinosis is an occupational disease that primarily affects workers in cotton processing industries. The number of cases has been declining in the United States but may have increased globally. It does not typically occur in industries that work with cotton that has already been processed into material, thread, or other products.

**How Byssinosis Affects Your Body**

Patients with byssinosis usually have difficulty with cough and feelings of chest tightness. Some develop “Monday fever” when they are exposed to the dust as they return to work after a break. The symptoms improve over the course of the week and usually cause no long-term effects if the exposure is stopped. However, permanent damage and difficulty in breathing can occur with continued exposure. Most people with symptoms have had exposure for more than 10 years.

**How Serious Is Byssinosis?**

If the diagnosis of byssinosis is made relatively early and exposure to cotton dust is stopped, most people will have no permanent damage and have few or no symptoms. Continued exposure for prolonged periods can cause disability, but rarely death, at least in the United States where workers’ protection regulations are more consistently enforced.

**Byssinosis Symptoms, Causes, and Risk Factors**

**What Are the Symptoms of Byssinosis?**

Cough, difficulty breathing, and chest tightness are common. The symptoms may be worst on returning to work after a period where no exposure occurred, such a weekend. On returning, symptoms begin within 1 to 2 hours of the first day of starting work. These symptoms slowly decrease over the course of the week. In some patients, fever occurs 4 to 8 hours after exposure to cotton dust and lasts a day. Shivering, flu-like muscle pain, joint pain, tiredness, and dry cough may occur. Sometimes workers with long-term exposure, such as weavers or mattress makers, may have persistent fever, severe cough, and shortness of breath.
What Causes Byssinosis
Raw cotton and other textiles have many biologic materials that trigger reactions in the body, which may be an allergy response or other processes that are not fully understood. These components include endotoxin, which is a bacterial product, or tannins. Sisal, hemp, and flax have also been known to cause these symptoms. It is a hypersensitivity response in susceptible individuals.

What Are Risk Factors?
Occupations that cause exposure to textile dust include processing of raw cotton, flax, and hemp. Exposure and mortality from byssinosis are decreasing in the United States.

When to See Your Doctor
Any person with breathing difficulty or symptoms like a cough and sputum or wheezing should see their doctor, especially if exposure from the work environment is suspected.

Diagnosing and Treating Byssinosis
The history of working in an occupation where there is exposure to textile dust with symptoms suggesting byssinosis is a common way the diagnosis is made. Special testing is sometimes required to confirm the causative factors.

What to Expect
Symptoms are most severe on first exposure after a break and slowly decrease as the workweek progresses. Over time, symptoms occur during the workweek, and later, all the time. Cough with phlegm may develop over the long term.

How Byssinosis Is Diagnosed
Pulmonary function (breathing) tests can help determine how the disease has affected the lungs. Function of the lungs may vary by the day of the week, as well as with treatment.

How Byssinosis Is Treated
Avoiding the occupational cause is the most effective way to reduce symptoms and prevent lung damage. The use of bronchodilators (medicines that increase the width of the airways) may be very useful. Inhaled anti-inflammatory medications, like inhaled steroids, may decrease inflammation. These medications are the same ones used for asthma.

Recovering From Byssinosis
Avoiding exposure and inhalation of textile particles is key to treatment and recovery. Using a multidisciplinary approach with the help of the primary doctor, lung specialist, and possibly occupational medicine expert, a treatment plan can be created. Prescribed medications will be very helpful in managing the disease.

Finding Support
Most pulmonologists can assist with managing byssinosis. Patient support groups may be present in some locations. The respiratory therapist or nurse can assist with learning correct use of inhaled medications. With severe and permanent lung damage, some patients may need oxygen.

The Lung Association recommends patients and caregivers join our Living with Lung Disease Support Community to connect with others facing this disease. You can also call the Lung Association’s Lung HelpLine at 1-800-LUNGUSA to talk to a trained respiratory professional who can help answer your questions and connect you with additional support.

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