

## **Patient Education Sheet**

## **Pulmonary Involvement**

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One feature defining Sjögren's is the inappropriate infiltration of certain white blood cells into glandular tissues known as 'exocrine' glands. This infiltration contributes to reduced tear and saliva production, causing the classic symptoms of dry eyes and dry mouth associated with Sjögren's. Because the airway and lungs are lined with exocrine glands, the lung is commonly involved in Sjögren's, with respiratory symptoms occurring in up to two-thirds or more of patients. Some key facts:

- Parts of the lung that may be involved in Sjögren's include the upper and lower airways, the small or microscopic airways, and the lung tissue or air sacs and their supportive structures.
- The most common respiratory symptom is a dry cough or airway irritation referred to as 'xerotrachea' or 'dry airway.'
- Other symptoms include cough productive of sputum, wheezing, and shortness of breath both at rest and with exertion. Patients with these symptoms should be investigated for disease in both airway and lung tissue or interstitial lung disease (ILD).
- Doctors may perform breathing tests (pulmonary function tests [PFT]) to assess for abnormalities and order chest x-ray and special radiologic testing such as high-resolution computed tomography [HRCT] to help characterize the extent of lung involvement.
- Findings on radiology may include patchy infiltrates or locally consolidated lung, suggesting inflammation or infection. Cysts, or small thin-walled air pockets in the lung, and thickened or elongated airways are other findings seen in Sjögren's.
- Other dryness symptoms and blood inflammatory markers for Sjögren's often do not correlate with the likelihood or severity of respiratory symptoms.
- Occasionally, Sjögren's may be associated with another autoimmune or inflammatory disease that can affect the lung. In this case, lung disease may be worse in terms of severity and progress more rapidly over time.
- Many medications used to treat Sjögren's may cause unintended side effects that injure the lung. A careful review is warranted, particularly if symptoms develop after starting a new medication.
- Medications that suppress the immune system may also increase the likelihood of lung infection. A careful assessment for possible infection is often the first step in managing new respiratory symptoms.
- Finally, if infection and medication side effects are ruled out, therapy directed at treating the underlying Sjögren's may need to be adjusted in an attempt to treat respiratory symptoms.
- Supportive treatments such as inhalers or oxygen, in severe disease, can be helpful for managing symptoms.
- The Sjögren's Foundation has published clinical practice guidelines for pulmonary disease in Sjögren's patients. Check the Foundation website for these and other guidelines.