

## **PATIENT INFORMATION: Sjogren's syndrome**

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**WHAT IS SJOGREN'S SYNDROME?** – Sjogren's Syndrome (SS) is a chronic inflammatory disease that can affect many organs of the body, but most commonly causes dry eyes and mouth as a result of damage to moisture producing glands. It is more common in woman than in men. It is one of a number of "autoimmune" diseases, in which the body's immune system, designed to protect against infection, goes awry in some way and damages normal body cells. SS can occur alone (primary SS) or in conjunction with some of these other autoimmune disorders, such as rheumatoid arthritis, systemic Lupus erythematosus, scleroderma, and dermatomyositis (secondary SS).

Glands that secrete substances to the outside of the body (exocrine glands, such as the salivary and tear glands) are the main targets of the autoimmune attack. White blood cells called Lymphocytes gather in increased numbers in the glands, causing a verity of problems. In a small number of cases, the clusters of abnormal cells turn cancerous, leading to the development of Lymphoma.

**WHAT ARE THE SYMPTOMS?** – As mentioned, classic symptoms of SS are:

- Dry mouth (due to decrease in the production of saliva)
- Dry eyes (due to a decrease in the production in the production of tears)

However, it should be noted that these symptoms often occur in otherwise healthy people, especially the elderly. They can also occur with other illnesses. Patients with SS may also have some of the following problems:

- Mucous – like strands in the eyes, especially in the morning (due to abnormal composition of the tears that remain)
- Difficulty swallowing due to lack of saliva
- Enlargement of the salivary glands
- Dryness in the upper airways (nose and throat), leading to dry cough
- Skin rashes including purple spots
- Fatigue
- Inflammation of blood vessels (vasculitis)
- Shortness of breath or other difficulty breathing
- Difficulty swallowing due to lack of saliva or other problems
- Nausea, stomach pain, or indigestion
- Yellow eyes or skin (jaundice) or itching due to liver disease
- Pain in the joints
- Neurological symptoms, including abnormal sensations or movement in one or more body parts, hearing loss, double vision, facial drooping (Bell's palsy) dizziness, psychiatric symptoms, or dementia
- Muscle weakness or muscular pain
- Colour changes in the fingers or toes due to cold exposure or emotional stress (Raynaud's Phenomenon)

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In addition to the other illnesses mentioned that can be associated with SS, there is a higher risk of developing disease of the kidneys and thyroid gland.

**HOW IS SS DIAGNOSED?** – Doctors and scientists have not settled on a strict definition of SS. Some classification systems rely exclusively on the patient's symptoms; others require the performance of diagnostic tests. Tools the doctor will use to establish the diagnosis include those listed here. Not every test is appropriate for every patient suspected of having SS.

**History and physical exam** – The patient's symptoms are critically important in establishing the diagnosis. The doctor will begin to suspect SS in any patient complaints of dry eyes and / or dry mouth. Physical exam may reveal swelling in the salivary glands. Signs of involvement of, or concurring disease in, other organs, such as the liver or joints, may also be evident on the physical exam.

**Blood Tests** – A number of blood tests will be done, but the doctor will be especially interested in the presence of antibodies that are markers for autoimmune disorders.

**Salivary gland biopsy** – removal of small sample of the inner portion of the lip allows salivary tissue to be sent for analysis. Clusters of Lymphocytes in the tissue help confirm the diagnosis.

**Tests of tear production** – Simple tests are available that help the doctor determine if the production of tears is normal or low. In one test, a small piece of sterile filter paper is inserted into the corner of the eye. It is removed after several minutes, and the wetness on the paper is then measured. A decreased amount of wetting is characteristic of SS, but can also occur with many other conditions that can cause dry eye.

**Examination of the eye** – The eye of Ss can be associated with damage to the membranes surrounding of the eyelids. In addition to performing a simple examination of the eye using an ophthalmoscope, the doctor may refer the patient to an eye doctor for more definitive tests.

**Tests of saliva production** – Doctors may also use simple tests of saliva production. One such test involves asking the patient to chew on a gauze sponge for two minutes, then comparing the weight of the sponge before and after the test to how much saliva was absorbed.

**Images of the salivary glands** – Nuclear scanning agents, injection of X-ray contrast into the ducts that drain the salivary glands, or magnetic resonance images may be useful in some cases of the suspected SS.