

lupus **FACT SHEET**

SYMPTOMS OF DRUG-INDUCED LUPUS

Drug-induced lupus erythematosus (also known as DILE or DIL) can occur as a side-effect of certain medications. Some symptoms overlap with those of systemic lupus erythematosus (SLE). These include:

- Muscle and joint pain and swelling
- Flu-like symptoms of fatigue and fever
- Serositis (inflammation around the lungs or heart that causes pain or discomfort)
- Certain laboratory test abnormalities

Drugs that can cause drug-induced lupus are typically those used to treat chronic diseases. They include medicines used to treat:

- Heart disease
- Hypertension
- Rarely, Neuropsychiatric disorders or thyroid disease

Certain other drugs including anti-inflammatory agents and antibiotics may also cause drug-induced lupus. In all, at least 38 drugs currently in use can cause drug-induced lupus. However, most cases have been associated with these three:

- Hydralazine – used to treat hypertension
- Procainamide – used to treat cardiac arrhythmias
- Quinidine – used to treat cardiac arrhythmias

The risk for developing lupus-like disease from any of the other 35 drugs is low or very low (in some cases, only one or two cases have been reported).

It may take several months of therapy with the medication before symptoms appear. For the high-risk drugs such as procainamide and hydralazine, only 5 to 20 percent of people treated for one to two years at currently used doses will develop

drug-induced lupus. With most of the other drugs, the risk is less than 1 percent that those taking the medication will develop drug-induced lupus.

There is no evidence that people with SLE are more likely to develop drug-induced lupus. The use of drugs linked to drug-induced lupus have not been associated with an increase in SLE activity or onset of flares.

The high female-to-male ratio associated with SLE is not seen with drug-induced lupus. However, drug-induced lupus usually occurs in males over 50 years old because they are more likely to develop chronic diseases (i.e. heart disease) that require continuous use of those medications known to cause drug-induced lupus.

Symptoms of drug-induced lupus

People with drug-induced lupus may complain of flu-like symptoms, especially muscle and joint pain. Symptoms may appear gradually and become worse after the person has taken the drug for several months. In other people, symptoms start rapidly. They are generally mild, but can become much worse if a patient continues to take the medication that is causing them. By the time a diagnosis is made, most people will have one or more of the following:

- joint pain
- muscle pain
- arthritis
- fever
- heart and lung inflammation

Laboratory testing

Your doctor may use a laboratory test to check for the presence of certain autoantibodies. As with SLE, most people with drug-induced lupus may develop antinuclear antibodies (ANAs), although those with a form of drug-induced lupus related to quinidine often are ANA-negative. The ANAs in drug-induced lupus are primarily autoantibodies that are able to react with a histone-DNA complex, the major component of every cell's nucleus. The laboratory test detects certain antibodies to this histone-DNA complex. Their presence is a marker for lupus-like disease brought on by many drugs. (Hydralazine is the exception, as only about one-third of people with drug-induced lupus have this type of anti-histone antibody.) There is no evidence that people who develop ANA without symptoms are at increased risk for developing drug-induced lupus in the future.

Drug-induced lupus and SLE

SLE is distinct from drug-induced lupus, since DIL generally has milder symptoms than SLE, and no skin or kidney disease. Oral ulcers, hair loss, photosensitivity and central nervous system symptoms are also very rare in drug-induced lupus.

SLE can be more difficult to diagnose in elderly people, since they often do not experience the typical features of the disease. Sometimes the symptoms can be very similar to those of drug-induced lupus. Since many elderly patients take a variety of medications to treat other health conditions, it is important to consider if one of them is known to cause drug-induced lupus when assessing symptoms. People with SLE usually have more abnormal immunological features on laboratory testing.

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Treatment of drug-induced lupus

If possible, the medication suspected of causing drug-induced lupus should be discontinued or replaced with a similar drug. In most people who develop drug-induced lupus, after the causative medication is discontinued, the ANA should gradually disappear. Its decline can confirm the diagnosis. It may take months and even years for all symptoms to disappear.

Your doctor may prescribe non-steroidal anti-inflammatory drugs (NSAIDs) to hasten recovery, if appropriate. Corticosteroids may be used for people with severe symptoms of drug-induced lupus, such as severe inflammation of several joints, inflammation of the sac around the heart and, in rare cases, kidney disease.

After the symptoms of drug-induced lupus have disappeared, it is possible for a person to develop them again if he or she takes the same medication that caused them, so it should be avoided if possible.

Systemic Lupus Erythematosus is an autoimmune disease that affects thousands of Canadians, mostly women in their child-bearing years. Symptoms vary greatly from patient to patient and treatment is highly individualized. Patients are urged to contact their physician or health professional with any questions or concerns they might have. Opinions expressed on these fact sheets do not reflect those of Lupus Canada. To learn more about lupus, read the other fact sheets produced by Lupus Canada.

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