

# How lupus affects the muscles, tendons and joints

It is not uncommon for people with lupus to experience muscle aches and pain (myalgias) or have inflammation of certain muscle groups (myositis), which causes weakness and loss of strength. More than 90 percent of people with lupus will experience joint and/or muscle pain at some time during the course of their illness.<sup>1</sup> More than half of the people who develop lupus mention joint pain as their first symptom.

Muscle pain and muscle tenderness, especially during periods of increased disease activity (flare), occur in as many as 50 percent of those with lupus. The symptoms may have different causes. It is important for your physician to determine the cause of your symptoms since treatments are quite varied. Rheumatologists are the physicians who specialize in the joints, muscles and bones.

Muscle aches and pain may be from [symptoms](#) that happen when your body is responding to some type of inflammation, from muscle atrophy (weakness) or from a true myositis.

## Inflammation

Inflammation is the most common reason for muscle pain and aches. Any time that major inflammation exists ("strep" throat, hepatitis, cancer, lupus, acute heart attack, etc.), signs and symptoms often include fevers, sweats, chills, fatigue, weight loss, and various muscle aches, pains and weakness. These non-specific, non-diagnostic symptoms are signs of your body's inability to cope with whatever process has overwhelmed it. Because lupus is an inflammatory disease it may cause any of these problems. These myalgias are a secondary part of the overall disease.

## Lupus arthritis

Lupus arthritis causes pain, stiffness, swelling, tenderness and warmth in your joints. The joints most often affected are the ones farthest from the middle of the body, such as fingers, wrists, elbows, knees, ankles and toes. General stiffness upon awakening, which gradually improves as the day goes on, is a key feature of lupus arthritis. However, there also may be joint pain later in the

day. Several joints are usually involved, and the inflammation will affect similar joints on both sides of your body.

Compared to rheumatoid arthritis, lupus arthritis is less disabling and less likely to cause destruction of the joints. Fewer than 10 percent of people with lupus arthritis will develop deformities of their hands and feet associated with weakening of cartilage and bone.

Muscle atrophy (wasting away of muscle strength) may occur if arthritis becomes chronic.

### **Lupus myositis**

Some people with lupus develop myositis, an inflammation of the skeletal muscles that causes weakness and loss of strength. Lupus myositis often affects the muscles of your neck, pelvis, thighs, shoulders and upper arms; difficulty in climbing stairs and getting up from a chair are early symptoms. Later symptoms may include difficulty lifting objects onto a shelf, lifting your arm to comb or brush your hair, getting out of the bath, and even raising your head or turning over in bed.

An exercise program supervised by a physical therapist is helpful in regaining normal muscle strength and function.

### **Drug-induced muscle weakness**

Muscle weakness also may be a side effect of certain drugs used to treat lupus and related conditions, including prednisone and other corticosteroids, cholesterol-lowering drugs and hydroxychloroquine (Plaquenil®). Therefore, drug-induced muscle disease should be ruled out as a cause of weakness if you are taking any of these medications, as drug-induced muscle weakness usually does not produce elevated levels of muscle enzymes as is seen in lupus myositis.

Adjusting or stopping the drugs that are causing the muscle weakness usually brings about an improvement of muscle strength.

## Tendonitis and bursitis

A tendon is a strong rope-like structure made of tough fibers that attaches muscle to bone. A bursa is a small sac containing a slippery fluid that is usually found near a joint and allows muscles, bones, and tendons to move easily. Tendonitis (irritation of a tendon) and bursitis (irritation of a bursa) are usually due to damage or overuse of a joint. Pain is the major symptom of both conditions. Different areas of your body may be affected; common areas include the elbow (tennis elbow), the finger (trigger finger) and the shoulder. In addition, tendons and bursas are both lined with synovial membrane, which is a target for inflammation in lupus arthritis.

## Carpal tunnel syndrome

Pressure on the central nerve in the wrist causes a condition called carpal tunnel syndrome. It is characterized by tingling, numbness, and pain in the fingers, which sometimes affects the entire hand. A number of medical conditions, including lupus, can cause carpal tunnel syndrome. When carpal tunnel occurs with lupus, it is usually because inflammation in your wrist is putting pressure on the nerves.

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<sup>1</sup> Olesińska, M., & Saletra, A. (2018). Quality of life in systemic lupus erythematosus and its measurement. *Reumatologia*, 56(1), 45–54. <https://doi.org/10.5114/reum.2018.74750>