LUPUS

The Joints and Muscles

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Muscle and joint disease is very common in lupus and will affect most people at some point during their illness. There are several different causes of muscle and joint disease. This factsheet discusses the main causes and their treatment.

How does lupus affect the joints and muscles?

Active lupus frequently causes joint and tendon inflammation. This usually affects the joints of the hands although other joints may also be affected. As well as pain, there may be joint swelling and stiffness, particularly at the beginning of the day. Joint flares can occur as part of a more widespread flare involving other parts of the body. Unlike rheumatoid arthritis, the arthritis of lupus does not usually cause joint damage over time although the tendons may be damaged. Tendon damage might cause some changes in the appearance of the hands, sometimes referred to as Jaccoud's arthropathy.

Muscle inflammation due to active lupus, known as myositis, is less common. When it occurs, it causes weakness centred around the shoulders, upper legs and hips. This can lead to problems with activities such as lifting, walking up stairs, standing up and running. Muscle pain is unusual but may occur. In addition to blood tests, electrical tests (electromyography (EMG)), scans of the muscles (Magnetic resonance imaging (MRI)) and sometimes a muscle biopsy may be required to confirm the diagnosis.

How are lupus flares of joints and muscles treated?

Pain killers such as paracetamol and co-dydramol may be helpful for symptoms of pain. Non-steroidal anti-inflammatory (NSAID) tablets such as Ibuprofen can also be helpful in the short-term for the symptoms of pain and stiffness. However, they should be avoided if you have or have had stomach ulcers or lupus nephritis (lupus of the kidney). You should not take NSAIDs if you are on blood thinners. However, to treat the underlying problem immunosuppression is usually

needed. The choice of immunosuppressant will depend on what other parts of your body are affected by your lupus. Steroid treatment is effective for joint inflammation and works quickly, within a few days, but due to the potential side effects your doctor will want to keep the dose to a minimum. Hydroxychloroquine is commonly used and takes approximately three months to take effect. Sometimes stronger agents such as methotrexate, azathioprine, belumimab or rituximab are needed; these again take around three months to fully take effect (see factsheet LUPUS and Medication). Physical therapy for the hands may help.

Treatment for muscle inflammation (myositis) will usually require steroid therapy. Unlike the joint disease it will usually take a few weeks before you feel some improvement in your symptoms and higher doses of steroid may be needed. Immunosuppressants, such as mycophenolate and azathioprine are also usually required and take around three months to take effect. Intravenous immunoglobulin which is extracted from donated blood is also an effective treatment which is given intravenously over several days. This again takes some weeks to act. Exercise is helpful in building up muscle strength and should be started even when the muscle disease is active. Your doctor may refer you to a physiotherapist for this.

What problems may arise due to damage from previous flares?

Tendon damage due to previous disease may create joint instability and deformities. This may cause pain and difficulty with some hand movements. In addition some lupus patients also have rheumatoid arthritis with joint damage causing reduced joint movement and pain, although it should be noted that this is uncommon. It is important to check that there is no ongoing active disease causing further damage. However, even when your lupus is well controlled these pains can persist.

Although a rare side effect, the blood supply to bones may be

disturbed in lupus particularly during high dose steroid therapy. This may cause bone tissue to die and is called avascular necrosis (AVN), again it should be noted that this is a rare side effect. The most frequently affected joint is the hip although other joints such as the knees and shoulders can be affected. The main symptom is pain, which worsens when moving the joint. The changes may show up on an x-ray if advanced, but usually an MRI is required.

Steroid therapy may cause thinning of the bones known as osteoporosis. This does not cause pain in itself but increases the risk of bone breakage. If you are likely to be on steroid treatment for more than a few weeks your doctor will prescribe medications to help prevent osteoporosis. Calcium and vitamin D supplements are usually prescribed and if your risk of osteoporosis is high enough a group of drugs called bisphosphonates, most commonly alendronate, may also be recommended. It is possible to make lifestyle changes to reduce your risk of osteoporosis. This includes keeping a balanced diet, maintaining a healthy weight, participating in regular weight-bearing or resistance training exercise, stopping smoking, and limiting alcohol intake to a maximum of 1-2 small alcoholic drinks a day.

How are problems due to damage treated?

For pain from joint and tendon damage your doctor may refer you for physiotherapy or hand therapy. Exercises can strengthen the muscles supporting the joints and encourage joint remodelling. Your therapist may also supply splints to support the joints. Pain killers may be required and, in certain situations, surgery on the tendons or joints or joint replacement surgery can be very effective.

In avascular necrosis of the hip or knee, crutches may be needed to take the weight off the joint. You may be referred to physiotherapy for advice on appropriate exercises. Core decompression, a surgical procedure where holes are drilled in the bone may reduce the pain. Many people eventually require hip replacements, but these have a limited lifespan, so they are best delayed if possible in young people.

Osteoporosis is usually treated with a group of drugs called bisphosphonates, most commonly alendronate, which is taken weekly.

How can fibromyalgia be treated?

Increased treatment of the underlying lupus with immunosuppressants has no effect on fibromyalgia.

Physiotherapy with an exercise programme aimed at a gradual increase in exercise and activity may be beneficial.

Psychological treatments such as 'cognitive behavioural therapy' (CBT) are aimed at helping people find ways of coping better with the pain of fibromyalgia.

Many patients may not benefit from drug treatment and may experience more relief from treatments such as physiotherapy and cognitive behavioural therapy. However, certain drugs, such as amitriptyline and duloxetine (which are also used for depression) and gabapentin and pregabalin (which are also used for epilepsy) may help ease the pain. It can take a few weeks for the benefits to be felt. Some people have troublesome side effects such as dizziness, drowsiness and weight gain with these drugs and need to try several different ones to find one that is right for them.

Can exercise help with joint and muscle pain?

Gentle exercise can help people with lupus build stronger muscles, prevent joint stiffness, control fatigue, and avoid weight gain. Low impact exercise, which involves stretching can reduce stiffness and make limbs more mobile. Resistance training or weight-lifting works muscles and will contribute to better joint support.

Aerobic exercise such as dancing, water exercises, cycling, or walking use the body's large muscles also improves heart and lung function. Yoga, Pilates and Tai Chi can help with posture, balance and co-ordination, all of which are important when managing lupus.

Remember to take it slow when starting any exercise routine and increase your level of intensity when it feels right. Exercising regularly at a lower intensity will be more beneficial than exercising only occasionally at a high level of intensity. Keep a steady pace and remember to rest between sessions. (See factsheet LUPUS Fatigue and your Lifestyle).

It is important to consult your doctor before commencing any exercise as some movements can be harmful when you have swollen joints or muscle pain.

The LUPUS UK Range of Factsheets

A range of factsheets are available as follows:

1. **LUPUS Incidence within the Community**
2. **LUPUS A Guide for Patients**
3. **LUPUS The Symptoms and Diagnosis**
4. **LUPUS The Joints and Muscles**
5. **LUPUS The Skin and Hair**
6. **LUPUS Fatigue and your Lifestyle**
7. **LUPUS and Pregnancy**
8. **LUPUS and Blood Disorders**
9. **LUPUS and Medication**
10. **LUPUS and the Kidneys**
11. **LUPUS and Associated Conditions**
12. **LUPUS and the Brain**
13. **LUPUS The Heart and Lungs**
14. **LUPUS The Mouth, Nose and Eyes**
15. **LUPUS and Light Sensitivity**
16. **LUPUS and the Feet**
17. **LUPUS and Men**
18. **LUPUS and Mixed Connective Tissue Disease**
19. **LUPUS Bone Health and Osteoporosis**

LUPUS UK is the registered national charity caring for people with lupus and has over 5,000 members who are supported by the Regional Groups.

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Please contact our National Office should you require further information about the sources used in the production of this factsheet or for further information about lupus. LUPUS UK will be pleased to provide a booklist and details of membership

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