

University College London Hospitals 
NHS Foundation Trust

National Hospital of Neurology and Neurosurgery

Queen Square Centre for Neuromuscular Diseases

Patient information leaflet:
Azathioprine



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Introduction

This booklet discusses azathioprine in neuromuscular diseases: what is it, why is it used, how is it taken, the aims and possible side effects related to its use.

The Queen Square Centre for Neuromuscular diseases have produced this leaflet as part of a guideline for patients and healthcare staff on the safe and appropriate use of medication which suppresses the immune system in inflammatory neuromuscular diseases. Content is reviewed and updated every 2 years by Dr Aisling Carr, consultant neurologist.

What is azathioprine?

Azathioprine should help treat your condition. It has been in use for many years and has helped many people. However, as with all drugs some people will have side-effects. Azathioprine (trade name: Imuran) reduces the activity of the body's defence mechanism (immune system), which may be overactive in some conditions. It modifies the underlying disease process to limit or prevent tissue damage and disability, rather than having an immediate effect on symptoms.

Azathioprine is a long-term treatment, so it may be 6–12 weeks before you start to notice the benefits. Unless you have severe side-effects it is important to keep taking azathioprine: even if it doesn't seem to be working at first. And when your symptoms improve you should continue until your consultant advises you to stop as this will help to keep the disease under control.

Why is it used?

Azathioprine helps to achieve long-term control of symptoms due to inflammation in various neuromuscular conditions, such as:

- Myasthenia Gravis
- Inflammatory muscle diseases or myositis (dermatomyositis, polymyositis, overlap myositis)
- Vasculitis
- Other rheumatological and medical conditions like rheumatoid arthritis, lupus (SLE), asthma, allergy, Crohn's Disease, eczema

Your doctor may also prescribe azathioprine if you're on steroid treatment so that your steroid dose can be reduced.

What are the possible side effects?

As with all medications, azathioprine can sometimes cause side-effects such as:

- Nausea (feeling sick), vomiting, diarrhoea
- Loss of appetite (which may be alleviated by taking with food or last thing at night)
- Hair loss and skin rashes.

Minor side-effects can sometimes be helped by reducing the dose – speak to your doctor about this

It can also affect the blood (causing fewer blood cells to be made) or the liver. You will therefore need to have blood tests before starting azathioprine and at regular intervals while you are taking it. These blood tests are sometime done by your GP or at our hospital. The neuromuscular clinical nurse specialist will keep a record of the results.

YOU MUST NOT TAKE AZATHIOPRINE UNLESS YOU'RE HAVING REGULAR BLOOD CHECKS.

There is possibly a slightly increased risk of certain types of cancer with azathioprine. Some of these may affect the skin and the use of sunscreens is advised. You should discuss this with your doctor or clinical nurse specialist if you need reassurance.

Is infection a side-effect of azathioprine treatment?

Because azathioprine affects the immune system, it can make you more likely to develop infections. You should tell your doctor or nurse specialist straight away if you develop any of the following after starting azathioprine:

- a sore throat,
- fever or any other signs of infection,
- unexplained bruising or bleeding,
- yellowing of the skin or eyes (jaundice),
- any other new symptoms or anything else that concerns you.

You should stop azathioprine and see your doctor immediately if any of these symptoms are severe.

You should also see your doctor if you develop chickenpox or shingles or come into contact with someone who has chickenpox or shingles. These infections can be severe in people on azathioprine. You may need antiviral treatment, and you may be advised to stop taking azathioprine until you're better.

Do I need winter vaccinations?

It's usually recommended that you avoid live vaccines, such as yellow fever, if you are on azathioprine. However, sometimes a live vaccine may be necessary – for example, rubella vaccination in women of childbearing age. If you are offered shingles vaccination (Zostavax), you should speak to your neurology team – you may be able to have the shingles vaccine if you are on a low dose of azathioprine. Pneumococcal vaccine (which gives protection against the commonest cause of pneumonia) and yearly flu vaccines are recommended

Is there an alternative?

There are a number of alternatives to azathioprine with a range of different side-effects. Drugs such as methotrexate and mycophenolate have a similar effect on the immune system as azathioprine and are considered when azathioprine is not well tolerated.

If your disease is not fully controlled by azathioprine then stronger medications, such as cyclophosphamide might be suggested. We have produced patient information leaflets on all these medications.

What will happen if I choose not to take it?

The medical team will explain the alternatives and the typical outcome in people with your specific condition if treated or left untreated. If they are happy that you fully understand the implications of your decision your choice will be respected.

How do I take them?

Azathioprine is usually given as tablets, taken once or twice daily. It's usually taken with or after food.

What dose do I take?

Your doctor will advise you about the correct dose, which will depend on your body weight. Usually you'll start on a low dose (e.g. 50 mg per day) and your doctor may increase this if necessary, usually to between 100 mg and 200 mg.

Before prescribing azathioprine, your doctor may order a blood test for an enzyme called TPMT (thiopurine s-methyltransferase). This enzyme helps to break down and remove azathioprine from the body. Low levels of TPMT may mean there is a little more risk of side-effects from azathioprine, so your doctor may suggest a lower dose than usual. If the result is very low, azathioprine may not be the right medication for you, and your doctor will discuss other treatments with you.

Can I take other medications with azathioprine?

Azathioprine may need to be used with caution or in reduced doses if: you have severe liver, kidney or bone marrow problems. If you're on other medications which could interact with azathioprine (e.g. allopurinol, warfarin) then your doctor may suggest another treatment or a different dose either of the azathioprine or of your other medication.

Can I drink alcohol while taking azathioprine?

You should only drink alcohol in small amounts because alcohol and azathioprine can both affect your liver. It's important not to drink more alcohol than the government recommended safe limits – these state that adults shouldn't drink more than 14 units per week. It's also strongly recommended to have alcohol free days without 'saving units up' to drink all in one go. If you're concerned you should discuss your alcohol intake with your neurology team.

Is azathioprine safe in pregnancy and breastfeeding?

Current guidelines state that azathioprine can be taken during pregnancy. It's important that the mother's health is maintained during pregnancy and disease flares are avoided by not stopping azathioprine.

If you're planning a family or become pregnant while taking azathioprine, you should discuss this with your doctor as soon as possible.

Azathioprine may pass into the breast milk. If you're on azathioprine and wish to breastfeed you should discuss this with your neurology team beforehand, although current guidelines state that it is safe to continue in this instance.

References

K Chackravaty et al., **BSR/BHPR guideline for disease-modifying anti-rheumatic drug (DMARD) therapy in consultation with the British Association of Dermatologists**. *Rheumatology* 2008; 1-16.

Contact details

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Where can I get more information?

www.wikipedia.org/wiki/azathioprine

www.arthritisresearchuk.org

Any azathioprine document at www.medicines.org.uk

For further detail please also see the relevant Summaries of Product Characteristics (SPC) document at www.medicines.org.uk

Guillain-Barré & Associated Inflammatory Neuropathies Charity

Tel: 01529469910

<http://www.gaincharity.org.uk/>

British Rheumatological society: Patient information

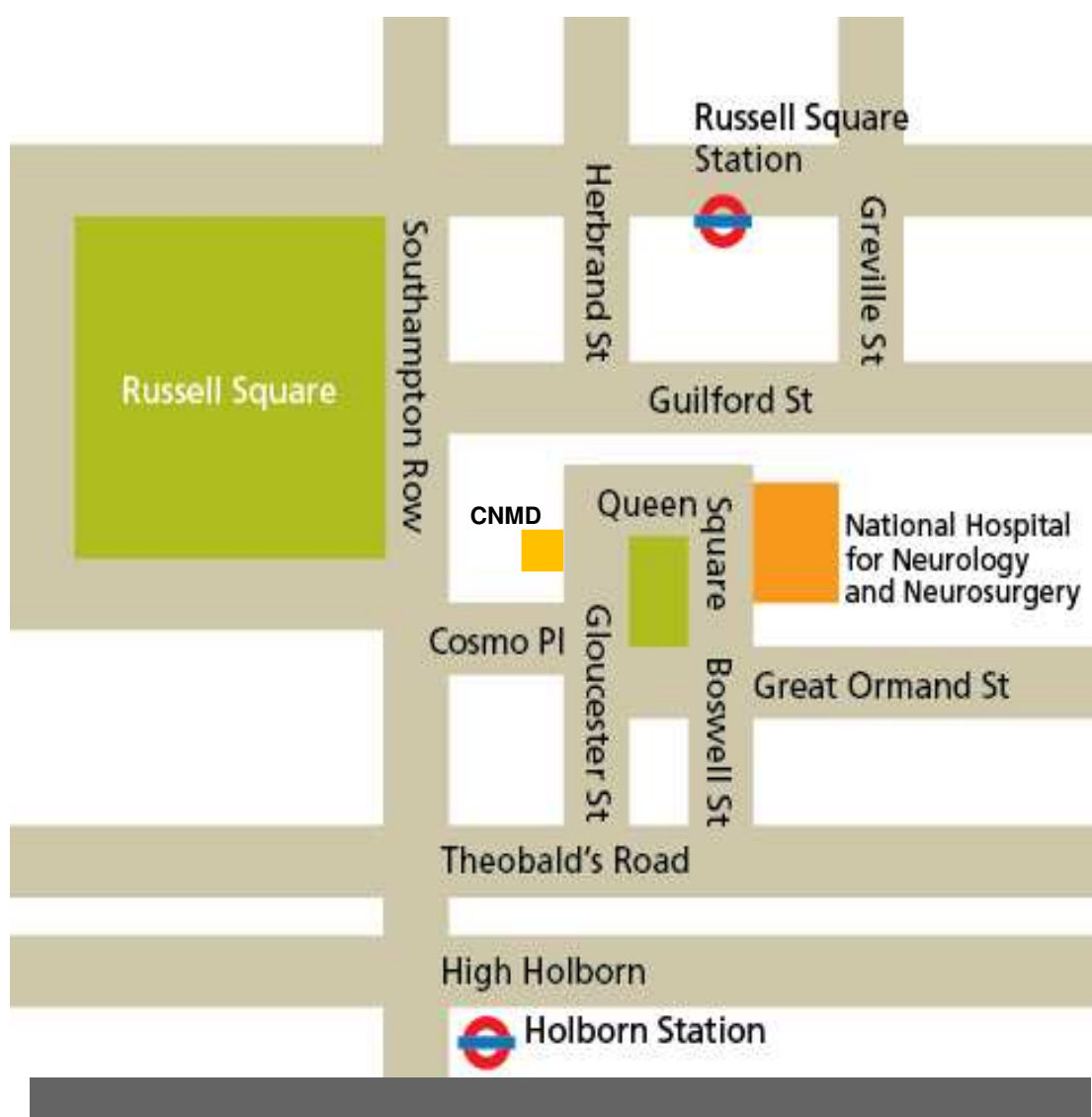
Tel: +44 (0) 20 7842 0900

<http://www.rheumatology.org.uk>

UCLH cannot accept responsibility for information provided by external organisations.

How to find us

Neuromuscular outpatient clinics run across the hospital outpatient departments, please see your appointment letter for further information. The Centre for neuromuscular diseases (CNMD) is based on the ground floor of 8-11 Queen Square, directly across from the main hospital entrance.



Space for notes and questions

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and world class research

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