

# AZATHIOPRINE AND MERCAPTOPURINE

## Medication Information

This information is intended as a guide only. Ask your doctor if you have any questions relating to this information.

### WHAT IS AZATHIOPRINE AND MERCAPTOPURINE?

Azathioprine and Mercaptopurine belong to a class of medications called Thiopurines. They are immunosuppressive drugs that are used to treat Inflammatory Bowel Disease (IBD), both Crohn's disease and ulcerative colitis.

In people with IBD as well as other autoimmune conditions, the immune system attacks the body's own tissues. These drugs work by suppressing the body's immune system, thereby reducing inflammation and tissue damage. The goal of treatment with Thiopurines in IBD is to heal the inflamed bowel.

### WHY HAVE I BEEN STARTED ON THIS MEDICATION?

Azathioprine and Mercaptopurine are used to prevent flares of IBD, to avoid long-term corticosteroid (e.g. prednisolone) use, and to reduce inflammation of the bowel and promote healing. They are effective in maintaining long-term remission of IBD, and can allow withdrawal of corticosteroid therapy, and hence avoidance of the side effects of steroids.

### HOW LONG WITH IT TAKE WORK?

Azathioprine and Mercaptopurine do not work immediately, and may take 6-12 weeks before they take full effect. Another therapy (such as a corticosteroid) is usually used as a 'bridge' to efficacy, so as to reduce inflammation until the benefit of Azathioprine or Mercaptopurine is realised.

### HOW DO I TAKE AZATHIOPRINE OR MERCAPTOPURINE?

Your doctor will provide you with specific instructions on how and when to take the medication.

The dose of both Azathioprine and Mercaptopurine is calculated based on your body weight, and may vary over time with changes in your weight.

Azathioprine and Mercaptopurine are taken in tablet form, usually as a single daily dose. The tablets should not be chewed or crushed, and are best taken after food to reduce any nausea. They are usually started at a lower dose to ensure that you tolerate the therapy, and the dose is then increased over several weeks.

If you forget to take your dose for a day, continue with your usual dose the following day, and do NOT double the dose to 'catch up'.

### WHAT DO I NEED TO DO BEFORE I START TAKING AZATHIOPRINE OR MERCAPTOPURINE?

Before starting therapy with one of these medications, you will need to:

- Make an appointment with your GP to discuss starting this medication and enlist their help with monitoring
- Take bloods tests:
  - Baseline full blood count and liver function tests
  - Check your TPMT genotype. This test is important to see how your body will process the medication and whether it is safe to use
  - Hepatitis B serology. This is to ensure that you do not have active or latent infection that could become more active during therapy
  - Varicella (chickenpox) serology. If

you are not immune to chickenpox, you will need a vaccination prior to starting therapy

- Ensure that you are up to date with your:
  - **Pneumococcal** vaccination (Pneumovax® - 5 yearly)
  - **Influenza** vaccination (Fluvax® - yearly)
  - **Human Papilloma** Vaccination (Once - for females who are not yet sexually active)
  - **Varicella** vaccination (Once - if you have not had chicken pox)
- Ensure that your pap smears are up-to-date
- Discuss your plans for pregnancy or whether you are thinking of starting a family

Undertake a skin-check with either your GP or a dermatologist. Your doctor will:

- Take a history to see if you have had any prior infection or exposure to tuberculosis (TB). If there are any concerns, a blood test and chest X-ray will be ordered
- Review your medical history, particular with regard to any previous infection or cancer
- Your doctor will review your medications to see if you are taking any other medicines that could interact with Azathioprine or Mercaptopurine. In particular, Warfarin, Trimethoprim, or Allopurinol.

### WHAT DO I NEED TO DO AFTER STARTING AZATHIOPRINE OR MERCAPTOPURINE?

Close monitoring is extremely important when taking Azathioprine or Mercaptopurine, particularly blood tests to monitor your full blood count and

liver function. Monitoring helps to keep you safe and minimise any harm related to therapy.

After starting Azathioprine or Mercaptopurine, you will be asked to:

- Make an appointment with your GP and inform them that you are starting this medication
- Have regular bloods tests (Full blood count and liver function tests):
  - Weekly for at least 4 weeks after you reach a stable dose
  - Monthly for 3 months thereafter
  - 3-monthly for as long as you are on treatment

**You must NOT take these medications unless you are having regular blood monitoring.**

- Inform your doctor if you have any side effects, in particular easy bruising, fever, or pain
- Ensure that you are up to date with your vaccinations:
  - **Pneumococcal** vaccination (Pneumovax® - 3 yearly)
  - **Influenza** vaccination (Fluvax® - yearly)
  - **Avoid live vaccines** (polio, yellow fever, MMR (measles, mumps, and rubella), and BCG (tuberculosis). **These are dangerous** while taking these medications and should be avoided. Inactivated vaccines such as the flu vaccination are perfectly safe and recommended
- Be careful in the sun and be vigilant with sun protection. The skin's sensitivity is increased whilst taking these medications and there is higher risk of skin cancer
- Skin checks yearly with either your GP or a dermatologist
- Annual pap smears are recommended for sexually active women whilst on therapy

### WHAT ARE THE RISKS OF TAKING AZATHIOPRINE OR MERCAPTOPYRINE?

Most patients (>80%) will tolerate these medications. However, as with all medications there are potential side effects and it is important that you are aware of these. Close monitoring is important to reduce the risk of harm with these medications.

Your doctor will discuss these risks with you, and the steps to be taken to reduce the likelihood of side effects occurring. Below is a list of some (but not all) potential risks of Azathioprine or Mercaptopurine therapy.

#### More common

- Nausea, vomiting and reduced appetite
- Flu-like symptoms
- Generalised aching

#### Less common

- Serious infection
- Bone marrow suppression causing a reduction in white blood cells, platelets and anaemia. Monitoring your blood count regularly reduces this risk
- Inflammation of the liver (hepatitis). Monitoring your liver function regularly reduces this risk
- Pancreatitis
- Non-Hodgkin's lymphoma (NHL). There is a small increase in risk for NHL, particularly in older patients and those who have been taking the medication for a long time
- Skin cancer. Regular skin checks and being vigilant with sun-protection reduce this risk
- Reversible hair loss
- Skin rashes and dizziness

You should see your doctor immediately if you develop any of the following, or if you are concerned that you are having any other side effects of Azathioprine or Mercaptopurine.

- Mouth ulcers
- A fever, sore throat or any other sign of infection
- Nausea, vomiting, dark urine or abdominal pain
- Unexplained bruising or bleeding from the gums
- You become breathless or develop a cough

### PREGNANCY AND BREAST-FEEDING ON AZATHIOPRINE OR MERCAPTOPYRINE?

If you are pregnant or thinking of becoming pregnant, you should discuss this with your doctor.

Azathioprine and Mercaptopurine are considered generally safe in pregnancy and breast-feeding (as per guidelines from the European Crohn's and Colitis Organisation). A balanced decision regarding continuation of therapy during pregnancy and breast-feeding should be based on the risks and benefits, taking into account the impact that a flare of IBD will have on your pregnancy.

**Please contact your doctor to discuss further if you have any concerns.**