

Azathioprine and 6-mercaptopurine - Medication Information

What are azathioprine and 6-mercaptopurine?

Azathioprine (brand name: Imuran) and 6-mercaptopurine (also known as: 6-MP, brand name: Purinethol) are medications that slow down the immune system's activity to heal inflammation. They are used to keep Crohn's disease and ulcerative colitis inactive and under control.

How is azathioprine or 6-MP given?

Both azathioprine and 6-MP come as tablets, or pills, taken by mouth. They are typically taken once a day. Sometimes, the total daily dose can be split up and taken 2-3 times a day instead. The typical dose of these medications depends on the medications' body weight. Azathioprine is given at a dose of 2.5 mg/kg, while 6-MP is given at 1.5 mg/kg.

When can I expect azathioprine or 6-MP to work?

Both azathioprine and 6-MP can take up to 3 months to start working.

They are not effective in treating flare-ups of Crohn's disease and ulcerative colitis. In this case, they are often used in combination with other medications that take quicker to work such as corticosteroids (prednisone, budesonide).

These medications work well for about half of patients. For some patients, the medications continue to work well when staying on them for many years.

They are sometimes used alone. Other times, they can be used along with other injectable or intravenous (into a vein) medications. When used with other medications, they also lower the likelihood of your body rejecting the newer medications.

What tests are needed while I am on azathioprine or 6-MP?

Before beginning azathioprine or 6-MP treatment, you will need a blood test called TPMT (thiopurine methyltransferase). This checks your body's ability to process these medications and helps us choose the right dose for you.

Once you start these medications, you will need blood tests to monitor your blood counts and liver. In the first 3 months, they will be done every 2 weeks. After that, they will be done every 3-4 months. Even if you have been on the same dose of medications for years, you still need the blood test done every 3-4 months. This is to make sure that your blood counts and liver tests are within normal range.

At times, you may need a blood test to check the level of this medication in your blood. Your provider may change your dose based on the results.

What are the potential side effects of azathioprine or 6-MP?

Side effects of azathioprine or 6-MP may include:

Allergic reaction: Patients may develop allergic reactions to azathioprine or 6-MP as with any other medication. These may include fever, severe joint or muscle aches, and other flu-like symptoms. This is uncommon and can be treated with steroid and antihistamine medications.

Pancreatitis: Fewer than 5% (5 in 100) of patients may develop pancreatitis, which is redness and swelling of the pancreas. If this occurs, it is often within the first month of taking these medications. Symptoms of pancreatitis include sudden stomach pain, and sometimes back pain. If you have these symptoms soon after starting azathioprine or 6-MP, you must stop taking the medications and let your provider know.

Infection: As with other medications that act on the immune system, azathioprine or 6-MP can increase your risk of infections. Serious infections are uncommon, but serious medical conditions like uncontrolled diabetes or lung disease may increase this risk.

Lymphoma: Azathioprine or 6-MP can also increase the risk of lymphoma, a form of cancer of the lymph node. In the general population, about 2 out of 10,000 people get diagnosed with lymphoma every year. With azathioprine or 6-MP, this risk may increase to 4-6 out of 10,000 people.

Skin cancer: Azathioprine or 6-MP can also increase your risk of skin cancer. If you tend to develop precancerous spots on the skin, please let your provider know. Take proper precautions to lower your risk of skin cancer such as wearing protective clothing, applying sunscreen, and avoiding being outside for extended periods of time when the UV index is high.

Please see the medication package insert for the full list of potential side effects.

Is azathioprine or 6-MP safe during pregnancy and breastfeeding?

Women and men on azathioprine or 6-MP have not been associated with fertility problems, miscarriages, birth defects, preterm birth, stillbirths, or other pregnancy-related problems. These medications are generally safe to continue during pregnancy. In pregnant women, their dose may be lowered in the 3rd trimester to reduce the risk of the baby developing a weakened immune system.

A small amount of the medication may be transferred into breast milk. This usually does not cause any side effects in the baby. Most patients choose to breastfeed while on these medications.

How can I take care of my health while on azathioprine or 6-MP?

It is important to be up to date with your health maintenance while on azathioprine or 6-MP. This includes being current on all the recommended vaccines such as the flu, COVID-19, pneumococcal, and shingles vaccines. You should only get the recombinant shingles vaccine (brand name: Shingrix®). Do not get the older shingles vaccines that contain the live but weakened virus. You should not get any live virus vaccines while on the medication or for 3 months after stopping it.

It is also important to be up to date in your general cancer screening including mammograms and pap smears for women, and skin check-ups for both men and women. Speak to your primary care doctor about whether you are up to date on all your vaccines and cancer screening.

What if I have questions about azathioprine or 6-MP?

Talk with your provider about any questions or concerns you may have about azathioprine or 6-MP.

This document has been reviewed for plain language by Blum Center staff.

