

AZATHIOPRINE, 6-MERCAPTOPURINE

What are Azathioprine or 6-mercaptopurine?

Azathioprine (Imuran) and 6-mercaptopurine (Purinethol, 6-MP) are medications that suppress the immune responses to heal active inflammation. They are used to maintain remission in Crohn's disease and ulcerative colitis. They were first made in the 1950s.

How are they administered?

Both azathioprine and 6-MP are oral medications that are typically taken as once a day pills. Sometimes, the total daily dose can be divided to be taken two or three times a day. The typical dose of these medications depends on the body weight. Azathioprine is given at a dose of 2.5mg/kg body weight while 6-MP is given as 1.5mg/kg body weight.

When can I expect to respond to Azathioprine or 6MP?

Both azathioprine and 6-MP are slow acting medications that typically begin to show an effect 3 months after you start taking it. They are not effective in treating relapses of Crohn's disease and ulcerative colitis. They are often used in combination with other medications that act faster such as corticosteroids (prednisone, budesonide).

Approximately 5 out of 10 patients will have a good response to these medications, and some patients may continue to respond many years after starting these medications.

They are sometimes used alone while at other times they can be used along with other injectable or intravenous medications. In that case, they also reduce your body's tendency to reject the newer medications.

What testing is needed on therapy?

Before beginning treatment with these medications, your doctor will do a blood test called TPMT. This determines your body's ability to process these medications and helps us choose the right dose for you.

Once you start these medications, you need blood tests to monitor your blood counts and liver. They will initially be done every 2 weeks for 3 months, and then every 3 months thereafter. Even if you have been on the same dose of medications for years, you still need the blood test done 4 times a year to ensure that your blood counts and liver tests are within normal range.

At times, your doctor may do a blood test to determine if you have adequate blood levels of this medication and your dose may be changed accordingly.

What are the potential side effects related to Azathioprine or 6MP?

Patients may develop allergic reactions to azathioprine or 6-MP as with any medication. Initial allergic reactions can present as fever, severe joint or muscle aches, and a sense of feeling poorly ('flu-like').

Fewer than 5% of patients may develop pancreatitis, which is inflammation of the pancreas. If this occurs, it is often within the first month of treatment with these medications. It presents as sudden abdominal pain, and sometimes back pain. If you have these symptoms soon after starting azathioprine or 6-MP, you must stop treatment and let your provider know.

As with other medications that act on the immune system, azathioprine or 6-MP can increase your risk of infections. Serious infections are uncommon, occurring in fewer than 2 or 3 out of 100 people. Significant medical conditions like uncontrolled diabetes or lung disease may increase this risk.

Azathioprine or 6-MP can also increase the risk of lymphoma, a form of cancer of the lymph node. The frequency of this in the general population is estimated to be around 2 out of 10,000 people. In those on Azathioprine/6-MP, this risk may increase to 4-6 in 10,000.

Azathioprine/6-MP can also increase your risk of non-melanoma skin cancers (basal cell and squamous cell cancers). If you have a tendency towards development of precancerous spots in the skin, please let your physician know.

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

Is Azathioprine/6-MP safe during pregnancy and breast feeding?

Maternal and paternal use of Azathioprine/6-MP has not been associated with impairment of fertility, miscarriage, birth defects, preterm birth, still births, or other adverse pregnancy outcomes. These medications are generally continued during pregnancy.

There is a small amount of medication that may be transferred in breastmilk. This usually does not cause any side effects in the baby and most patients elect to breastfeed on these medications.

Health maintenance on Azathioprine/6-MP therapy

It is important to be up to date with your health maintenance while on Azathioprine/6-MP therapy. This includes being current on all the recommended vaccines including annual influenza vaccine and pneumococcal vaccines. You should not receive live virus vaccines while on treatment or within 3 months of stopping (or starting it).

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