

What is Thioguanine?

Thioguanine is an anti-cancer agent used in the treatment of acute lymphoblastic leukaemia (ALL).

How does it work?

Thioguanine belongs to a class of drugs called antimetabolites. Thioguanine is a compound that mimics purines, which is a component of DNA. As the cell replicates, the thioguanine gets incorporated into the DNA stopping the cell from dividing and causing cell death.

How is it given?

Thioguanine is given by mouth as a tablet.

Special instructions:

- Thioguanine tablet(s) are best taken in the evening on an empty stomach at least 1 hour before or 2 hours after a meal.
- Do not take thioguanine within 2 hours of drinking milk or eating milk products. You may drink milk and eat milk products at other times of the day.
- If you vomit within 30 minutes after taking your thioguanine by mouth, inform a doctor or nurse right away.
- You may be required to take half tablets of thioguanine. A tablet cutter should be used to accurately split the tablet in half. This can be bought from your pharmacy. Keep the tablet cutter for only chemotherapy drugs.

Safe Handling:

All chemotherapy taken by mouth can pose a health hazard to caregivers and patients. Take care when handling this medicine and try to prevent the medication from touching your skin. Taking precautions will protect both the patient and the caregiver.

- We suggest that caregivers wear gloves while handling this medicine. If your skin comes into contact with the medicine, wash your hands or the area of contact right away.
- Prepare a clean area where the drug can be handled safely (away from areas where food is prepared, out of reach of children and away from any fans or air vents). Clean up spills in the area where the medicine is prepared.

If your child cannot swallow the thioguanine tablets, the tablets may be given in the following way:

- You will need the following:
 - An oral syringe
 - A dedicated measuring cup or glass or container
 - Dedicated tablet cutter for chemotherapy
 - Dedicated rubber gloves or disposable gloves (optional) –not to be used for any other purpose
- 1. Place the required number of tablets in the measuring cup
 - If you need to take half of a tablet, use the dedicated tablet cutter to cut the tablet in half
- 2. Place a little water on the tablet(s) and allow the tablet(s) to disperse. This may take a few minutes. Do not try to make the tablets disperse faster by stirring or shaking the container
DO NOT CRUSH THE TABLET(S)
- 3. Using the oral syringe, draw up the dispersed tablets and give the dose to your child

- Rinse the oral syringe, measuring cup, tablet cutter (if used) and rubber gloves (if not disposable) in warm water and allow to dry. These can be used again for further doses but do not use them for any other purpose. Do not place the oral syringe in the dishwasher.

Possible Side Effects:

Listed below, but not limited to, are the more commonly experienced side effects that you may see. The side effects your child might experience may be temporary and some may be permanent.

	Likely Happens to 21-100 children out of every 100	Less Likely Happens to 5-20 children out of every 100	Rare but serious Happens to <5 children out of every 100
Immediate Within 1-2 days of receiving the medicine		<ul style="list-style-type: none"> Nausea and/or vomiting Loss of appetite Diarrhea A feeling of extreme tiredness, weakness or not feeling well 	<ul style="list-style-type: none"> Kidney function impairment Damage to the kidneys due to high levels of uric acid in the blood.
Prompt Within 2-3 weeks, prior to the next course	<ul style="list-style-type: none"> Fewer white and red blood cells and platelets in the blood. A low number of white blood cells may make it easier to get infections. Fewer red blood cells may make you feel tired and weak. Fewer platelets may cause you to bruise and bleed more easily. 	<ul style="list-style-type: none"> Red itchy rash and/or hives which can occur a few weeks after stopping treatment[^]. 	<ul style="list-style-type: none"> Inflammation and/or sores in the mouth which may look like thrush Darkening of the skin Inflammation of the pancreas which can cause severe abdominal pain
Delayed Anytime later during therapy, excluding the above conditions		<ul style="list-style-type: none"> Absence or decrease in the number of sperm produced 	<ul style="list-style-type: none"> Hair loss Liver damage which can lead to inflammation and/or scarring which could lead to a yellow skin and fluid collection in the belly[^] Liver irritation or damage seen high levels of certain enzymes or bilirubin in the blood
Late Anytime later after completion of therapy			<ul style="list-style-type: none"> Inflammation or scarring of the lungs which could lead to chest pain or discomfort and shortness of breath A new cancer or leukemia resulting from this treatment

[^]Toxicity may occur later

This information sheet is a brief overview. Each individual can respond differently to the medication, it is vital that you communicate all signs and symptoms you observe to a doctor or nurse.

If you have any questions about the information provided please discuss them with your oncologist or haematologist.

Further information can be obtained from your doctor, nurse or pharmacist or at the following website: <http://medsafe.govt.nz/consumers/medicine/where.asp>