

THE SIDE EFFECTS OF CHEMOTHERAPY

You will hear many stories about the side effects of chemotherapy from well meaning (though often ill informed) people. There are numerous chemotherapy drugs, used in different regimens for different cancer types. *Each person reacts differently to chemotherapy.* Prior to commencing chemotherapy you will be requested to attend a pre-admission clinic with one of our nursing staff. You are encouraged to bring a family member or friend to this education session. In this private session you will be given information regarding each individual chemotherapy drug you are to receive, the possible side effects and the management of those side effects.

Remember that the side effects listed are only the worst case scenario – they may not necessarily happen to you.

Chemotherapy drugs are designed to kill cancer cells; however some normal cells are also damaged in the process

Blood cells (red cells, white cells and platelets) are often affected by chemotherapy. You will be required to have regular blood tests throughout your treatment. You DO NOT need to call the NCI for the results; a member of our oncology team will contact you *if there is a problem with your blood results.*

Platelets help your blood to clot. A low platelet count is a common side effect of many chemotherapy drugs. Symptoms usually include bruising and bleeding (although not life threatening).

Anaemia (low red cell count) can also occur and the side effects you may experience in relation to this include shortness of breath on exertion, palpitations and lethargy requiring you to rest often. In the event that you develop a low red cell count, the nursing staff will discuss this problem with your oncologist, and you may be offered a blood transfusion (which is provided in the NCI).

Chemotherapy also commonly lowers your white blood cells (the cells that fight infection). This may happen approximately 10 – 12 days after each treatment. If you have a temperature greater than 38 °C, twice in a 6 hour period, please *contact your General Practitioner, or attend the Accident & Emergency Department* of Royal North Shore Hospital, or the hospital nearest to you. If you attend the emergency department of any hospital, you should take your NCI appointment card with you.

[Chemotherapy and Infection](#)

NAUSEA AND VOMITING

Nausea (feel like vomiting) and vomiting can be caused by several factors:

- Chemotherapy
- Radiotherapy
- Anxiety or emotional upset
- The disease process

Nausea is a common side effect of many chemotherapy drugs. **Nausea is much easier to prevent than treat** and it is strongly advised you take the anti-nausea drugs you have been prescribed, as directed. Anti-nausea drugs are given before each chemotherapy treatment and can be continued for as long as necessary - this may vary from one to several days post chemotherapy.

Dependant on your chemotherapy regimen, specific anti-nausea drugs will be prescribed for you to take. There are several different ways in which anti-nausea drugs work, and there are several alternatives that can be offered:

Aprepitant – **Emend tripack**: 125mg capsule, 2 x 80mg capsules

Take 125mg capsule one hour prior to chemotherapy; then take one 80mg capsule daily, starting the day after chemotherapy, for 2 days.

Tropisetron - **Navoban**

Given intravenously day of your chemotherapy; then take one 5mg capsule daily, starting the day after chemotherapy, for 2 days.

Granisetron – **Kytril**

Given intravenously on the day of your chemotherapy; then take one 2mg tablet daily, starting the day after your chemotherapy, for 2 days.

Ondansetron - **Zofran**

Given intravenously on the day of your chemotherapy; then take one 8mg tablet twice a day, starting the night of chemotherapy, for a total of 4 doses.

Dexamethasone - **Dexamethasone**

Given intravenously on the day of your chemotherapy. Take one 4mg tablet morning and midday, with food, for 2 days following chemotherapy (**only if instructed to do so**)

Metoclopramide - **Maxalon** (Pramin) 10 mg tablet

Take 1-2 tablets every 4-6 hours if you are nauseated. You may find it helpful to take one tablet half an hour before meals if you are nauseated

Prochlorperazine - **Stemetil** 5 mg tablet

Take 1-2 tablets every 6-8 hours if you are nauseated. You may find it helpful to take one tablet half an hour before meals if you are nauseated

Prochlorperazine - **Stemetil suppository 25 mg**

Insert one rectally every 6-8 hours. These are excellent if vomiting is an ongoing problem

Some people have mild continuous nausea despite taking anti-nausea drugs. If this occurs then try:

- **An antacid** such as Zantac 150mg, one tablet twice a day.
- **Pyridoxine 100 mg** (Vitamin B6), one tablet, twice per day.
- **Ginger capsules**, one capsule, 3 times a day may also be helpful.

Remember - everyone is an individual and responds differently to treatment. If an anti-nausea drug does not work for you, there are always other alternatives you can try. Please also note that differing anti-nausea drugs can be taken at the same time. Please discuss this with your oncology team.

Make meals work for you...

As a cancer patient good nutrition is VERY IMPORTANT, as your dietary needs are greater at this time. Choosing a variety of foods from each of the five food groups will ensure you have a well balanced diet, in order to provide your body with all the essential nutrients it needs. This will help you cope mentally and physically with the cancer and any treatment side-effects, allowing you the best possible response to your treatment. A dietician can assist you with nutritional information, if required.

Some useful hints to prevent/alleviate nausea

FOOD

- Make meals an enjoyable time
- Don't have a large meal immediately before or after chemotherapy treatment
- Avoid foods with strong smells
- Eat small meals regularly
- Eat your main meal at the time of the day when you feel your best
- Eat savoury rather than sweet foods
- Cook food before nausea occurs, or alternatively, have someone else prepare your meals.
- Avoid greasy, fatty or fried food
- Plain (rather than spicy) foods may be better tolerated

FLUID

- Take sips of fluid often, this is important to keep you well hydrated
- Avoid excess coffee and tea as these may stimulate your stomach to feel more unsettled

You should drink 2-3 litres of fluid a day for 2-3 days immediately following chemotherapy.

ANTI-EMETIC REGIMEN

	Morning	Lunch	Evening
Day of chemo Day:			
Day 1 post chemo Day:			
Day 2 post chemo Day:			

BOWEL PROBLEMS

CONSTIPATION

The anti-nausea drugs, Navoban , Kytril and Zofran, as well as some anti-cancer drugs can cause constipation.

It is recommended that you commence an aperient (laxative) the day your chemotherapy starts. You should continue taking the aperient until you have finished your course of anti-nausea drugs and your normal bowel habits have been re-established.

If constipation persists, contact your GP or the NCI. No more than 2 days should pass without a bowel motion.

Some suggestions to prevent or relieve constipation include:

- Drink plenty of fluids
- Include high fibre foods in your diet (e.g. bran, raw fruits & vegetables, whole grain breads & nuts)
- Maintain a normal level of activity or exercise, if possible

Faecal softeners or other aperients will almost always be required. If you have a history of constipation, start taking an aperient the night before chemotherapy

Coloxyl with Senna - Take 1-2 tablets at night. If necessary, the tablets can be taken up to 3 times a day.

Movicol sachets – Mix 1 sachet in 125 – 250mLs of water. A maximum of 8 sachets per day can be taken.

If your bowels have not opened by the evening of the second day, try a Senna Milkshake.

Senna Milkshake: 1-2 teaspoons of Senna granules and 10-20 mls of Agarol. Mix into a paste with a little hot water. Add milk and a scoop of icecream. Shake well. (This mixture tastes just like a chocolate milkshake).

If, despite the above, your bowels still have not opened by midday the third day, try one glycerine and one Duro lax suppository inserted in the rectum.

If this still does not work, contact your GP.

DIARRHOEA

Diarrhoea can be caused by some chemotherapy drugs, or by anxiety. If diarrhoea continues for more than 24 hours or if you are experiencing pain or cramping, please see your local doctor as it may be necessary to exclude a viral or bacterial infection.

Some ways you may be able to control diarrhoea include:

- Drink small amounts frequently to replace fluids you have lost
- Drink clear fluids such as weak apple juice, water, weak tea or clear broth. Gastrolyte or Powerade are often useful to replenish electrolytes that may be lost
- The fluids should be taken at room temperature or warmed.
- Let carbonated drinks lose their fizz before you drink them.
- Eat smaller amounts of food but eat more frequently
- Try plain foods instead of spicy or fried foods
- Alcohol, fruit juices and strong tea or coffee may stimulate the bowel so these should be avoided where possible

Imodium or Gastro Stop - Take 2 capsules initially, then take 1 capsule after each loose bowel motion, but do not exceed 8 capsules in any 24hr period. If diarrhoea continues, contact your doctor.

Lomotil - Take 1 tablet after each loose bowel motion. If diarrhoea continues, contact your GP.

MOUTH CARE

Some chemotherapy drugs can cause a dry, sore and/or ulcerated mouth, as well as taste changes. To prevent infections occurring and maintain a healthy mouth environment, it is important to keep your mouth clean during your treatment.

Suggestions to prevent a sore mouth

- Use a soft, small headed toothbrush which must be rinsed well after every use
- Gently brush your teeth after each meal using circular stroke.
- Gently floss teeth daily
- Use a mouthwash at least 4 times a day. We recommend sodium bicarbonate mouthwash (Dissolve 1 teaspoon of bicarbonate soda in a glass of warm water. Rinse your mouth well, then spit out. Use after each meal and before going to bed)

- Avoid commercial mouthwashes that contain alcohol, as they will dry and irritate your gums
- If you have dentures, remove and clean them after each meal. Rinse your mouth with mouthwash when your dentures are removed

Suggestions for managing taste changes

- Maintain good oral hygiene with regular tooth brushing and by using mouthwash at least 4 times a day
- Eat mints (or sugarless mints) or chew gum (or sugarless gum) to mask a bitter or metallic taste
- Use plastic utensils if food tastes like metal

Treatment for a dry mouth

- Sip water or sugarless drinks often
- Use a mouthwash at least 4 times a day
- Chew sugarless gum or suck on sugarless lollies to stimulate saliva flow
- Avoid caffeine, alcohol and tobacco, as these can dry out the mouth
- Apply Biotene Oral Balance Moisturising Gel to the mouth and/or tongue. Alternatively you can try Toothette mouth moisturiser
- Use a lubricant such as paw paw ointment or oralife peppermint lip treatment on the lips if they become dry
- Use a room humidifier at night

Treatment for a sore mouth, ulcers or infections

Check your mouth every time you do your mouth care. If you develop a sore mouth or a white coating on your tongue, use a **Sodium bicarbonate**, **Biotene**, or **Diffiam** mouthwash every 2-4 hours.

You must also use:

- *Nilstat antifungal drops*. Swish 1mL around your mouth, then swallow. These can be purchased from your local pharmacy and do not require a prescription.
- *Fungilin lozenges* or *Fluconazole tablets* can also be used. Both require a prescription from your GP.

You should also:

- Use Biotene toothpaste if regular toothpaste irritates your gums
- Drink plenty of fluids
- Suck on ice and ice blocks
- Eat soft, bland but moist foods

Avoid

- Mouthwashes containing alcohol
- Spicy and salty foods
- Acidic foods (e.g. Grapefruit, oranges, lemons and tomatoes)
- Rough, coarse or dry foods
- Hot food

If you have mouth pain

- **Xylocaine viscous fluid** 5 mls – hold in mouth for as long as possible spit out. Avoid eating hot foods after this procedure..
- **Gelclair** – empty 15mL sachet into a glass and add up to 3 tablespoons of water. Rinse around mouth and tongue, then spit out.
- For an individual ulcer, try **Kenalog in Orabase Paste**

If the infection or mouth ulcers do not start to improve after 24-48 hours, or if the pain interferes with your ability to eat and drink, please consult your GP or the NCI.

YOUR LIFESTYLE

A healthy life style assists with recovery and aids in coping with the illness and the side-effects of your treatment.

Ensure you:

- Have a good diet
- Get adequate rest and relaxation
- Get as much regular exercise as possible
- Maintain a positive attitude

This will help take your mind off your illness and ensure you maintain your overall quality of life.

SEXUALITY

Chemotherapy and its associated side effects may impinge upon / affect your sexuality. Therefore, whilst undergoing chemotherapy please do not hesitate to discuss any concerns you may have with your oncology team

Following chemotherapy administration, **all** of your body fluids are contaminated with chemotherapy for several days. Excretion times – the time it takes for your body to excrete or remove the chemotherapy, varies. Your oncology team will inform you about the excretion time for the drugs you receive.

During this excretion time you should protect your partner by using safe sex techniques (e.g. condoms) and, when using the toilet, close the lid and double flush after each use.

NB: Carers should wear gloves when handling any body fluids.

COMPLIMENTARY THERAPIES

Please discuss any complimentary therapies with a member of the oncology team. Some drug therapies you may wish to pursue while you are receiving chemotherapy can occasionally interfere with your treatment.