



Sickness caused by chemotherapy in children

An information guide for parents, carers and families

The purpose of this guide is to help explain how your child's treatment may affect them and what you should do.

Information in this guide should be used to support professional advice specific to your child's diagnosis. If you have any questions, it is important to ask your medical team.

Feeling sick (nausea) and **being sick (vomiting)** are two of the worst side effects of chemotherapy and can cause a lot of distress to your child. This is sometimes called chemotherapy-induced nausea and vomiting (CINV).

Controlling your child's nausea and vomiting is important because, if left untreated, it can lead to other problems. These include imbalances with the salts in the blood (electrolytes), dehydration and poor nutrition resulting in longer stays in hospital. It could also affect future treatments if your child has felt very sick and then may not wish to have any more treatment. It is harder to prevent and control nausea than vomiting as it is individual to each person.

What is vomiting (being sick)?

Vomiting means being sick and this action protects us from things like poisoning. As chemotherapy is harmful to some cells in the body, it provokes this natural response in humans.

What is nausea (feeling sick)?

Nausea is the feeling of being sick or wanting to be sick, but it does not always result in vomiting.

Types of nausea and vomiting caused by chemotherapy

- **Acute:** happens within 24 hours of being given chemotherapy.
- **Delayed:** happens 24 hours or more after having chemotherapy, lasting up to one week.
- **Anticipatory:** happens after the first cycle of chemotherapy and before subsequent ones. This usually occurs following a previous experience where sickness was not well controlled. Your child starts to link the clinical environment to the feeling of sickness and may start to feel sick or be sick before the start of chemotherapy. This is more common in teenagers and young adults than in younger children.
- **Breakthrough:** happens during any phase of the chemotherapy cycle, despite being given anti-sickness medicines.
- **Refractory:** happens during further cycles of chemotherapy when all previous anti-sickness medicines have failed.

Will my child be affected?

Some chemotherapy drugs cause more sickness than others. The type of chemotherapy drug, dose, and how the drug is given will affect the likelihood of sickness.

Other factors which may make your child more likely to experience sickness are:

- if your child is anxious
- if your child has had previous chemotherapy
- if your child suffers from motion sickness

What can I do to help?

As well as medicines, there are a few other things that can help:

- keep a record - it is important to record how previous treatment has caused sickness and discuss with the medical team so that they can manage symptoms effectively
- be prepared - keep sick bowls and changes of clothes to hand
- provide rest and quiet activities
- encourage eating little and often and taking sips of water
- use relaxation and guided imagery e.g. relaxation apps
- wear travel sickness bands
- create distractions such as toys, watching a screen, reading a story or playing a game
- speak to a hospital play specialist who may be able to offer further support

Please talk to a member of your child's team if you want further information about any of the above.

How do we manage sickness?

Your medical team will aim to personalise treatment wherever possible, so please make sure you tell them how your child is feeling.

There are some very effective anti-sickness medicines which work on the brain to block one or more of the signals that cause nausea and vomiting. Others work on the gut to speed up the rate at which the stomach empties, helping to move food through the intestines more quickly. Anti-sickness medications are sometimes called anti-emetics.

Acute sickness prevention

Your child will be given anti-sickness medicine before, during or immediately after having chemotherapy. Your child's medical team will advise on the timing.

Medicines used to help control or prevent acute sickness include ondansetron, metoclopramide, aprepitant, levomepromazine and, occasionally, dexamethasone. Medicines are given together to provide the best control.

Delayed sickness prevention

If your child is having a chemotherapy drug that has a moderate chance of causing sickness, anti-sickness medicines will be given for 3-5 days after treatment.

Some drugs, such as carboplatin, cisplatin, cyclophosphamide and doxorubicin have a higher chance of causing delayed sickness. Children receiving these drugs should also be given anti-sickness medication for up to 5 days after treatment.

Ondansetron, an anti-sickness medication, is not effective in treating delayed sickness but is very good whilst chemotherapy is being given and for the first 24 hours.

Anticipatory sickness

Treating acute and delayed sickness aims to stop anticipatory sickness from occurring. However, if it is already a problem, or becomes a problem, an anti-anxiety medicine can be given within 24 hours of chemotherapy. This is particularly helpful in teenagers and young adults.

Breakthrough and refractory sickness

If your child experiences breakthrough or refractory sickness, there are other medicines or different combinations of drugs that can be given to stop them being sick.

How is the medication given?

Anti-sickness medication comes in many forms: liquid, tablets, melts, patches or injections. Your team will discuss with you the right form of medication for your child. It is usually possible for anti-sickness medication to be taken at home.

How do we know how much medication to take and when?

Your medical team will tell you what dose to take of each medication, how often and for how long. Keeping a record of how your child has been feeling can help your team improve the experience next time.

Are there any side effects to taking anti-sickness medications?

There are some side effects with each drug. Your medical team will discuss the side effects that may happen and will offer solutions if these arise. Some of the common side effects include constipation, headaches and tiredness.

What if the medications don't work?

Your medical team will discuss the different combinations of anti-sickness medication that can be taken. Sometimes it takes a little time to find the right combination. There may be times when this needs to be adjusted. If you are concerned, please talk to your medical team.

The more you can tell your team about sickness and nausea patterns during and after treatment, the more the team can try to help and support your child with future treatments.

Everyone is different and it may take some time and patience to find the right combination of anti-sickness medicines for your child.

If you have any concerns about your child at any time, please contact your medical team.



USEFUL ORGANISATIONS

Children's Cancer and Leukaemia Group (CCLG) publishes a variety of free resources to order or download.
www.cclg.org.uk

Young Lives vs Cancer offers practical support to children and young people with cancer and to their families.
www.younglivesvscancer.org.uk

Macmillan Cancer Support offers support and advice to those affected by cancer.
www.macmillan.org.uk



Scan here to order or download this guide from www.cclg.org.uk



Children's
Cancer and
Leukaemia
Group

the EXPERTS
in CHILDHOOD
CANCER

Children's Cancer and Leukaemia Group
Century House, 24 De Montfort Street
Leicester LE1 7GB

0333 050 7654

info@cclg.org.uk | www.cclg.org.uk

 ChildrensCLG   CCLG_UK

Registered charity in England and Wales (1182637)
and Scotland (SC049948).

© CCLG 2023

This edition: March 2023

Next review date: March 2026



Patient Information Forum

With thanks to Eloise Neumann, Advanced Nurse Practitioner Neuro-Oncology and Helen Woodman, Advanced Nurse Practitioner Late Effects (Oncology & Haematology), Birmingham Children's Hospital and CCLG members, who wrote this factsheet on behalf of the CCLG Supportive care group and the CCLG Information Advisory Group, comprising parents, survivors and multi-professional experts in the field of children's cancer.

Children's Cancer and Leukaemia Group (CCLG) is a leading national charity and expert voice for all childhood cancers.

Each week in the UK and Ireland, more than 30 children are diagnosed with cancer. Our network of dedicated professional members work together in treatment, care and research to help shape a future where all children with cancer survive and live happy, healthy and independent lives.

We fund and support innovative world-class research and collaborate, both nationally and internationally, to drive forward improvements in childhood cancer. Our award-winning information resources help lessen the anxiety, stress and loneliness commonly felt by families, giving support throughout the cancer journey.

Our work is funded by donations. If you would like to help, text 'CCLG' to 70085 to donate £3. You may be charged for one text message at your network's standard or charity rate. CCLG (registered charity numbers 1182637 and SC049948) will receive 100% of your donation.

We are grateful to all those who have contributed to this publication. We make every effort to ensure that this information is accurate and up to date at the time of printing. CCLG does not accept any responsibility for information provided by third parties including those referred to or signposted to in this publication. Information in this publication should be used to supplement appropriate professional or other advice specific to your circumstances.

If you have any comments on this factsheet, please contact us at publications@cclg.org.uk