



Febrile neutropenia 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.

What is neutropenia?

Neutropenia happens when a person has a low amount of a certain type of white blood cell called 'neutrophils'. Neutrophils are made in the bone marrow and are very important to fight infection and repair damaged tissues. When the number of neutrophils in the blood is low, the body finds it harder to fight infection.

When the neutrophils are less than $0.5 \times 10^9/L$, there is a greater risk of developing neutropenic sepsis. This can be a life-threatening illness, so it is important that your child is reviewed quickly.

What is febrile neutropenia?

Febrile neutropenia is when a person has a **neutrophil count of less than $1.0 \times 10^9/L$ and a temperature of $38^\circ C$ or above on one occasion.**

Febrile neutropenia is common in children and young people receiving chemotherapy for cancer. Any child or young person with febrile neutropenia is at risk of neutropenic sepsis, which can be a serious life-threatening condition.

A low temperature of less than $36^\circ C$ may also indicate sepsis and the same guidelines should be followed as for febrile neutropenia.

Any unwell child or young person who is receiving chemotherapy or radiotherapy should be considered at risk of infection, even if they do not have a temperature or are not neutropenic.

What should I do if my child has a temperature?

You should telephone your local unit if your child's temperature is $38^\circ C$ or above, even if they appear well. Do not give paracetamol unless you have spoken to a nurse or doctor first. Do not wait to see if their temperature comes down.

This is important if your child is on active treatment or they have a central line/port in place. A trained member of staff will tell you what you need to do.

You are recommended to have a digital thermometer at home. These can be either used in the ear or under arm. Your local team can advise which is the best one to use for your child. In the first instance, placing a hand on your child's chest or back will give you an idea of how hot they may feel.

Please also contact your hospital if your child appears unwell, even if they do not have a fever.

How do we treat febrile neutropenia?

It is important to start treatment quickly and, ideally, within one hour of a temperature (if in hospital) or one hour of arriving in hospital.

Children and young people can become very unwell quickly so it is possible that you may need to call for an ambulance during your journey to hospital if your child deteriorates significantly. The medical team will take into consideration the length of your journey from home to hospital and may advise you to call 999.

Your local team will start intravenous (through the central line or port) antibiotics as soon as you arrive, even if they do not know your child's neutrophil count.

It can be helpful to have a bag packed at home ready for emergency hospital admissions.

Antibiotics are usually given for 48 hours or 2 days. However, if your child has a higher neutrophil count and is well, the treatment may be able to change to oral antibiotics or be stopped early.

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 multi-professional experts in the field of children's cancer as well as parents and survivors.

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