

Understanding blood counts

Type of cell	Function	Measured by	Normal level	Low level	Symptoms of low level	Treatment for low level
Red blood cells	Red blood cells contain haemoglobin, which carries oxygen around the body	The red blood cell count is referred to as the haemoglobin level or Hb	The normal red blood cell or Hb count is 120 to 140 g/dl	When the Hb level is low your child is referred to as anaemic. Normally an Hb of less than 80g/L is considered low but this varies with age and your child's symptoms	<ul style="list-style-type: none"> • Paleness • Tiredness and lack of energy • Breathlessness • Feeling cold • Dizziness • Headaches 	A blood transfusion, which is a transfusion of red cells, can be given if the Hb is low. Generally transfusions are needed if Hb less than 65-70g/L dependent on symptoms, taking into account when bone marrow recovery is anticipated. A transfusion will normally take three to six hours
Platelets (Plts)	Platelets are cells that prevent and control bleeding and bruising	Platelet count	150 to 400 x 10 ⁹ /L	As a general rule children with a platelet count of 10x10 ⁹ /L or less will need a platelet transfusion. However this may change depending on disease or stage of treatment. Your doctor will advise you on your child's specific needs	<ul style="list-style-type: none"> • Bruise more easily • Bleeding gums • Nose bleeds • Small red spots under the skin (petechiae) 	A platelet transfusion is given over 30 minutes when the platelet count falls below the low level guidelines or if the child has significant symptoms. Do not use ibuprofen based medicines (i.e. Nurofen) as this will lower platelets.

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White blood cells (WBC)	There are several types of white blood cell. They are responsible for fighting infections and form part of our immune system	White blood cell count	5 to 10 x 10 ⁹ /L		<ul style="list-style-type: none"> • Increased susceptibility to infections • Inability to effectively fight infections 	White blood cells are only transfused under exceptional circumstances. It is normal to wait for count recovery or to give G-CSF to stimulate neutrophils – see below
Neutrophils (N)	These are a type of white blood cell. They are particularly important as they fight infections caused by bacteria	Neutrophil count	2 to 7.5 x 10 ⁹ /L	<p>Less than 0.5 x 10⁹/L</p> <p>When your child's count falls below this level they are termed as being neutropenic</p>	<ul style="list-style-type: none"> • Increased susceptibility to bacterial infection • Inability to effectively fight bacterial infections 	If your child develops an infection/temperature while neutropenic they should receive antibiotics. More detail is provided in 'Febrile neutropenia' in the RED section