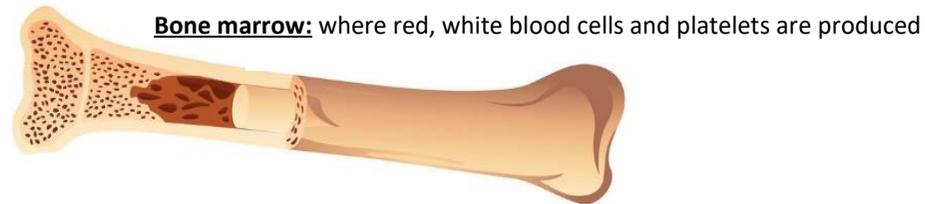


## GLOSSARY Nº3: Immune Alterations

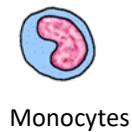
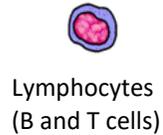
Different **blood** tests allow a qualitative (morphological) and/or quantitative (measure counts/levels) analysis of immune cells and proteins. This can help us determine the cause of **immune alterations/diseases**.



### Red Blood cells



### White blood cells (or Leukocytes)



### Platelets



They can be measured/monitored with various **BLOOD TESTS** (e.g complete blood count, leukogram)

Types of Immune Alterations	What is it?	What does it mean? What does it cause?
<b>Basophilia</b>	High levels of basophils (a type of white blood cell important in allergies)	It can be indicative of an allergy (usually associated with itching), infection, autoimmune diseases or cancer
<b>Basopenia</b>	Low levels of basophils (a type of white blood cell important in allergies)	It is often associated with allergies (e.g urticaria) and autoimmune diseases.
<b>Dysgammaglobulinemia</b>	Low levels of some immunoglobulins (antibodies). There are 5 different classes of antibodies: IgA, IgG, IgM, IgE, IgD and, in this case, one or more (but, NOT ALL) are decreased.	Increased susceptibility to develop infections with potential serious complications.
<b>Hypogammaglobulinema</b>	Low levels of ALL immunoglobulins (antibodies).	Increased susceptibility to develop infections with potential serious complications.
<b>Eosinophilia</b>	High levels of eosinophils (a type of white blood cell important in fighting different infections).	It could indicate a parasitic infection, allergy, autoimmune disease or cancer.
<b>Eosinopenia</b>	Low levels of eosinophils (a type of white blood cell important in fighting different infections).	It is often associated with acute inflammation and can be used to aid in the diagnosis of specific infections.
<b>Leukocytosis</b>	High levels of white blood cells (leukocytes).	It could indicate an inflammation, infection or cancer.
<b>Leukopenia</b>	Low levels of white blood cells (leukocytes).	Increased susceptibility to develop infections with potential serious complications.
<b>Lymphocytosis</b>	High levels of lymphocytes (B and/or T cells).	It could indicate infection, autoimmune disease or cancer.
<b>Lymphopenia</b>	Low levels of lymphocytes (B and/or T cells).	Increased susceptibility to develop infections with potential serious complications.
<b>Monocytosis</b>	High levels of monocytes (the largest type of white blood cells, which can transform into infection agents “eating cells”).	It is often associated with chronic (persistent and long-lasting) infections and inflammatory diseases.
<b>Monocytopenia</b>	Low levels of monocytes (the largest type of white blood cells, which can transform into infection agents “eating cells”).	It can be indicative with infections, stress or cancer.

<b>Types of Immune Alterations</b>	<b>What is it?</b>	<b>What does it mean? What does it cause?</b>
<b>Neutrophilia</b>	High levels of neutrophils (the most abundant white blood cells).	The most common cause is a bacterial infection (an infection caused by a specific type of germs called bacteria).
<b>Neutropenia</b>	Low levels of neutrophils (the most abundant white blood cells).	Increased susceptibility to develop infections with potential serious complications.
<b>Pancytopenia</b>	Low levels of red blood cells, white blood cells (leukopenia), and platelets (thrombocytopenia).	Increased susceptibility to develop infections with potential serious complications, bleeding episodes and anemia.