

Understanding Your Blood test-Full Blood Count (FBC)

The purpose of this article is to give non-medical individuals a broad idea of what a particular test indicates. It is not possible to be comprehensive in such a few words, so please email: ppgeditor@gmail.com if you have any questions or concerns arising specifically from this article. Any particular issues with your own blood tests should be discussed with your doctor.

A full blood count is sometimes called an FBC and is one of the commonest tests requested by a doctor. S(he) might ask for this if a patient complains of symptoms such as tiredness, shortness of breath, loss of appetite, weight loss. The blood is collected into a lilac topped bottle. The readout from the test provides the following information.

(a) Haemoglobin level. The colour of blood is provided by haemoglobin which carries oxygen to tissues in our body. The level may be lower than normal in many situations. e.g. if there is blood loss, shortage of the components in the body that are needed in the production of haemoglobin e.g. iron, where there is chronic illness e.g. rheumatoid arthritis or in malignancy e.g. myeloma.

(b) White blood cells have several components and are mostly used to fight infection. Neutrophils may be elevated when there is a significant bacterial infection such as pneumonia. Lymphocytes rise during virus infections e.g. glandular fever. Eosinophils are raised if there is an allergic process present. e.g. hayfever. The white cells may be significantly raised and abnormal with malignant conditions such as leukaemia.

(c) The red blood cell size is recorded as the mean cell volume (MCV). This may increase in conditions such as deficiency of Vitamin B12 or folic acid, if there is liver disease, an underactive thyroid gland or when excess alcohol is being consumed. The MCV may be reduced in conditions such as: iron deficiency, genetically abnormal haemoglobins.

(d) It is important that blood should clot normally and one of the elements involved in this process is called platelets. When the skin is cut, they help to form a 'mesh' and so stop bleeding from the wound assisted by the presence of clotting factors. Platelets may be low, which is termed thrombocytopenia and when raised is called thrombocytosis. For the latter, treatment by a blood specialist (haematologist) may be required to reduce the level.

Low platelets may be seen in various conditions and will be treated by the relevant specialist e.g. rheumatologist.

