

ANALYSES

INTERPRETATION OF THE HAEMOGRAM AND URINALYSIS

CLINICAL analyses are one of the most important means currently used to reach a correct diagnosis of systemic disorders or diseases, where blood count and urinalysis stand out.

A blood count is a blood test that identifies the number of erythrocytes (red blood cells), leukocytes (white blood cells), and platelets, including their particular characteristics.

Erythrocytes: when the count is lower than it should be, it may mean anaemia; when it is elevated, blood thickens and can cause headaches, dizziness and cardiovascular risk.

Haemoglobin: is a protein found inside erythrocytes, responsible for transporting oxygen and is the most precise way of evaluating the level of an anaemia.

Mean Corpuscular Volume (MCV): is the average volume of red blood cells contained in a specimen; if elevated, it indicates large red blood cells, helping to differentiate the various types of anaemia. For example, anaemia due to folic acid deficiency has large red blood cells; anaemia due to iron deficiency has small red blood cells.

Leukocytes: are the cells responsible for fighting infections and are part of the immune system. They include several types of cells: neutrophils (on average about 45% to 75% of circulating leukocytes, specialise in fighting bacteria);



kidney disease, but it can also be transient (in pregnancy or associated with strenuous exercise).

Glucosuria: or glucose in the urine, may arise in diabetes, pregnancy or in cases of renal tubular dysfunction.

Ketone bodies: or ketonuria can appear in diabetes, in situations of fever, after intense physical exercise, exposure to cold, with carbohydrate restriction diets or prolonged fasting. Ketone bodies result from the metabolism of fatty acids, when these are needed to compensate and satisfy the body's energy needs.

Bilirubin: their presence might suggest that there may be a bile flow obstruction (cholestasis) or an alteration in liver metabolism.

Urobilin: elevated levels may indicate haemolytic anaemia, liver disease or fever and dehydration.

Leukocytes: their presence may indicate infection or inflammation somewhere in the urinary tract. Confirmation of a bacterial infection must be carried out with a bacteriological analysis of the urine.

How often people should carry out analyses varies from person to person, depending on their clinical and family history. However, in healthy people, it is advisable to repeat them at least once a year.

eosinophils (responsible for combating parasites and allergy mechanisms); basophils (an increase indicates allergies and chronic inflammation) and lymphocytes. Lymphocytes are responsible for the production of antibodies, the second most common group of leukocytes,

but, in cases of viral infection, they can exceed the number of neutrophils.

Platelets: these are the cells whose function is to intervene in haemostasis (stopping the flow of blood) from a blood vessel injury. They clump together forming a blood clot (thrombus)

to stop the bleeding. When there is a low platelet count (thrombocytopenia), spontaneous hematomas and bleeding may occur.

In turn, urinalysis includes the assessment of general characteristics, such as colour, appearance and pH. Urinary density

reflects the ability of the kidneys to concentrate or dilute urine and also the level of hydration. The presence of abnormal elements is also documented.

Protein: detecting an abnormal amount of protein in the urine (proteinuria) is an indicator of

Article submitted by HPA Group

OPTIMAX
www.optimax.pt

sunglasses | contact lenses
frames | ophthalmic lenses
optometry appointments

The optician that suits you **FREE EYE EXAMS**

FARO R. Abóim Ascensão, 32 T: 289 894 404 M: 917 597 576	FARO Av. 5 Outubro, 16 T: 289 894 410 M: 917 597 577	FARO R. Santo António, 2 T: 289 894 420 M: 910 798 227	VILAMOURA Marina Plaza, Bl 14, Lj 22 T: 289 302 217 M: 917 597 104	QUARTEIRA Av. Carlos Mota Pinto, 8 T: 289 389 526 M: 917 595 020	S. B. MESSINES R. Heróis Mucaba, 28 RC T: 289 389 526 M: 917 595 020
--	--	--	--	--	--

Shape your confidence

Dr. David Rasteiro | SPECIALIST IN PLASTIC AND AESTHETIC SURGERY

AVAILABLE AT
Hospital Particular do Alvor
Clínica Particular da Guia
Clínica Particular de Vilamoura

DAVID RASTEIRO
www.davidrasteiro.pt +351 925 227 377

@drdavidrasteiro