Well Man - 49 Biomarkers

We check for 7 Liver markers:

- Albumin
- Alkaline Phosphatase (ALP)
- Aspartate Aminotransferase (AST)
- Gamma GT
- Globulin
- Total Bilirubin
- Total Protein

Your liver has a wide range of jobs including converting food into energy for the body, removing waste and toxins, and managing some of the body's important hormones. With a blood test we can measure enzyme levels which can indicate an inflamed liver. Inflammation of the liver can lead to progressive damage and scarring, which in turn can be irreversible and cause liver disease. Liver damage can occur through excessive alcohol consumption or food intake, or viral hepatitis.

We check for 1 Vitamin B9 (Serum Folate) markers:

- Serum Folate (Vitamin B9)

Serum Folate is a B Vitamin which is important in the manufacture and repair of DNA, and the production of red blood cells. Low levels can lead to anaemia. A lack of folate can also affect an unborn baby's growth and development in the womb. This increases the risk of neural tube defects, such as spina bifida, developing in the unborn baby.

We check for 1 Vitamin B12 markers:

- Vitamin B12

Vitamin B12 is used for the production of oxygen-carrying red blood cells and DNA, and also plays a role in the nervous system maintenance.
Usually obtained from our diet, a deficiency can lead to anaemia, and symptoms such as lethargy, heart palpitations, nerve problems such as tingling and constipation.

We check for 1 Vitamin D markers:

- Vitamin D

Vitamin D is vital for bone strength, as well as protection against chronic illnesses and muscle function.

We cannot make it ourselves and need to obtain it from natural sunlight or supplements.
It can also be obtained from a small number of foods, such as oily fish, red meat, egg yolks and fortified food such as cereals.

We check for 2 Thyroid markers:

- Free T4 (thyroxine)
- Thyroid Stimulating Hormone (TSH)

Your thyroid is a gland in your neck which produces hormones to manage and maintain your metabolism. If your thyroid under-produces hormones you can experience symptoms such as tiredness and lethargy, dry or brittle hair, dry or sensitive skin and weight gain. An overactive thyroid can lead to weight loss or feelings of anxiety. Our test will check for thyroid function and where specified in some tests, for thyroid antibodies, which if raised suggest the presence of an autoimmune thyroid disorder.

We check for 1 Muscle & Bone markers:

- Calcium

Our muscle and bone health check will identify levels of important enzymes or minerals related to the health of your bones and muscles.
Checking your Calcium levels will ensure you have healthy bone structure and bone formation to avoid complications such as neurological problems, osteoporosis, eye damage and dental problems.

We check for 1 Minerals markers:

- Magnesium

Magnesium is a mineral which typically comes from external sources such as a healthy diet including nuts, legumes, wholegrains, bananas and leafy green vegetables.
Magnesium deficiency can lead to symptoms such as bad headaches, muscle weakness, muscle spasms or cramping, stiffness or low energy.
This can be especially common in athletes or those who regularly participate in sport, and can be improved by eating a magnesium rich diet.

We check for 4 Kidney markers:

- Creatinine
- Glomerular Filtration Rate
- Urea

- Sodium

Kidneys remove waste products and fluid from the blood, which if not working effectively can lead to a build-up of toxins. This can result in low energy levels, loss of appetite, weakness, trouble sleeping and more. Ongoing damage can lead to kidney failure, which can then cause complications such as heart disease, anaemia, weak bones, high blood pressure and fertility problems. Kidney disease can have very few symptoms in the initial stages, so it is important to monitor your kidney health especially if you have diabetes, high blood pressure or relations with kidney disease.

We check for 4 Iron markers:

- Ferritin
- Iron
- Total Iron Binding Concentration
- Transferrin

Iron is used in the body to create new blood cells, which carry oxygen around the body.
Low levels of iron can lead to fatigue and reduced energy levels, along with pale skin, weak hair and nails and chest pain or heart flutters.
Too much iron can lead to iron-overload, or hemochromatosis, which can also lead to fatigue and chest pains, as well as joint pain, stomach pain and unexplained weight loss.
We will check your iron levels and your body's ability to efficiently transport iron via your blood.

We check for 1 Inflammation markers:

- High Sensitivity C-Reactive Protein

Inflammation typically occurs when your immune system tries to remove infections or antibodies from your body, with symptoms including swelling, redness, pain and heat.
Acute inflammation is usually short term and triggered by an injury or infection.
Chronic inflammation lasts for longer periods and can be caused by conditions such as asthma, arthritis, autoimmune disorders, or long term exposure to irritants such as pollution.
Ongoing inflammation can cause the body to start fighting healthy cells as well as damaged ones, leading to increased risk of cancer, heart disease, stroke, diabetes, asthma and more. On a day-to-day basis this can cause fatigue, rashes, chest or abdominal pain, sores and fevers.
Our test can identify whether there is inflammation in the body which can lead to damaged blood vessels and potentially a heart attack or stroke.

We check for 1 Hormones markers:

- Testosterone

Hormone imbalances can have a huge impact on your general health and wellbeing, affecting your mood, libido, energy levels and fertility. Our test will check your level of key hormones for your age and gender, identifying any issues which may be impacting your mood, sex drive, fertility, sports performance or the menopause for females.

We check for 1 Gout markers:

- Urate (Uric Acid)

Gout is a type of arthritis typically found in the fingers, wrists, ankles and toes, affecting individual joints or multiple joints at the same time.
It is caused by a build-up of uric acid which deposits crystals into the joints leading to inflammation and significant pain.
Uric acid is typically processed and excreted by the kidneys, however if there is too much in the body or the kidneys are not functioning effectively, it can accumulate in the body. Gout can be treated with steroids or anti-inflammatories once recognised.

We check for 6 Cholesterol markers:

- High Density Lipoprotein (HDL)
- Low Density Lipoprotein (LDL)
- Non HDL Cholesterol
- Total Cholesterol
- Total Cholesterol : HDL Ratio
- Triglyceride

Cholesterol plays an important role in the general function of the body, however too much can increase your risk of stroke or heart attack. Blood tests to check your levels of good or bad cholesterol can check levels within the blood and identify risks to your health.
For example, LDL cholesterol can lead to fatty deposits inside your arteries causing heart disease, heart attack and stroke, whilst the HDL molecule transports cholesterol and fatty deposits out of the blood stream to the liver, to be broken down and removed – meaning you should be aiming for low LDL and high HDL overall.
Having high cholesterol produces no initial symptoms so the only way to check your health is with a blood test. Cholesterol levels can be easily lowered by stopping smoking, improving your diet, doing more physical activity - but you need to know your levels first.

We check for 1 Diabetes markers:

- HbA1c (Glycosylated Haemaglobin)

Type 2 diabetes is a highly prevalent disease and comes with life changing side effects such as damage to your nerves, heart disease, stroke, vision loss, foot problems, miscarriage and kidney problems.
Up to 33% of people in the UK live with prediabetes, when the blood sugar level is higher than normal but not enough for a Diabetes diagnosis, putting them at high risk of developing full Type 2 diabetes.
Blood tests can check your blood glucose levels to understand the average level of sugar in your blood over the past 3 months and determine whether you may have or be at risk of having diabetes or prediabetes.

We check for 1 Prostate markers:

- Prostate Specific Antigen

This test will check for the total level of Prostate Specific Antigen (PSA) in the blood, a protein released into the body by the prostate gland.
Increased presence of PSA can indicate possibility of prostate cancer, to be checked with further tests by your GP.
Please avoid strenuous exercise and ejaculation in the 48 hours before the test as this will affect the results. Please do not take biotin supplements for 48 hours before the test. If you are prescribed biotin please speak to your doctor before taking the test.

We check for 15 Blood Cells markers:

- Basophils
- Eosinophils
- Haematocrit
- Haemoglobin
- Lymphocytes
- MCHC
- Mean Cell Haemoglobin
- Mean Cell Volume
- Monocytes
- MPV
- Neutrophils
- Platelets
- Red Blood Cells
- Red Cell Distribution
- White Blood Cells

Red blood cells are responsible for transporting oxygen around your body and are continuously being created within your bone marrow to replace cells lost through bleeding or cell aging. Some conditions within the body can lead to excess cells being created, or too few. Too many red blood cells can lead to problems such as blurry or impaired vision, headaches and migraines or an enlarged spleen. Too few, and you could experience anaemia, fatigue, dizziness and heart palpitations. White blood cells in your body are integral for fighting against infections and protecting you from harmful germs or bacteria entering your system. There are 5 different types of white blood cells, all of which are created within the stem cells of your bone marrow, and all of which perform a different function within your immune system to identify and protect you from microbes, parasites and bacteria. Our test will check your red and white blood cells to ensure you have the right levels in your body and identify any issues with the health of your blood.