



## GOODWOOD HEALTH PANEL

Goodwood has worked in partnership with Stephanie Moore and Randox Health to create a bespoke blood panel to support Goodwood's Health Programmes. Designed to give you real-time insights on your current health so that our team of specialists can support and track improvements in your health data.

The Goodwood Panel contains 31 markers linked to key health areas such as liver and kidney function, nutrition, metabolic status and inflammation.

### SCREENS

Diabetes Status RP6 – 4 markers

Iron Status RP9 – 5 markers

Liver Health RP14 – 7 markers

Metabolic Syndrome RP11 – 4 markers

Plus, individuals - 11 markers

Folic Acid FOL

hsCRP CRP

Homocysteine HOMO

Lipids CHOL,HDL\_,CHOL,LDDL\_,CHOL

Triglycerides TRYGLICERIDES

Vitamin B12 VITB12

Vitamin D 25OH\_VITD

### Cholesterol

Cholesterol is a fatty substance that is needed for many functions within the body, but it is essential that levels are kept within a healthy range. Tests include total cholesterol, LDL cholesterol and HDL cholesterol. LDL is very rich in cholesterol. When too much LDL cholesterol is present in the blood, the excess cholesterol can accumulate in blood vessels and increase risk of heart disease and stroke. Conversely, HDL helps to carry excess cholesterol to the liver where it is processed for removal from the body. Therefore, to reduce risk of heart disease and stroke, low levels of LDL cholesterol and higher levels of HDL cholesterol are desirable.



### Triglycerides

Triglycerides are a type of fat found in the blood. The body uses triglycerides for energy and stores unused triglycerides in fat cells for use when energy supplies are low. Regular consumption of excessive calories can lead to high triglycerides, which increases risk of developing heart disease, metabolic syndrome and fatty liver disease; therefore, it is important to keep triglycerides at a healthy level.

### High-Sensitivity CRP

C-reactive protein (CRP) is a useful test for detecting inflammation. It is a general marker of inflammation, which rises non-specifically when inflammation of any kind (e.g. from disease, infection or injury) is present. High-sensitivity CRP is an extra sensitive test that can detect very low levels of CRP. Detecting raised high-sensitivity CRP may reflect the presence of low-grade inflammation, which can contribute to a range of disease processes, including heart disease and diabetes.

### Diabetes Status

Sugar provides energy for the body. However, having too much sugar in the blood can be damaging. Normally, when blood sugar levels rise, a hormone called insulin helps to move sugar from the bloodstream into the cells that need it for fuel. However, in people with diabetes, blood sugar levels continue to rise due to insufficient insulin (type 1 diabetes) or failure to respond to insulin, despite increased insulin production (type 2 diabetes). This panel includes measurement of glucose, HbA1c, insulin and C-peptide, tests that are useful for the diagnosis and monitoring of diabetes.

### Metabolic Syndrome

Metabolic syndrome describes a collection of risk factors that, when occurring simultaneously, increase the risk of developing diabetes and heart disease. Various factors contribute to metabolic syndrome, including obesity, carrying too much weight around the waist, high blood pressure, high blood sugar, low levels of protective HDL cholesterol and high levels of triglycerides. This panel includes measurement of leptin, adiponectin and resistin, hormones produced by adipose (fat) tissue that are associated with many features of metabolic syndrome, including increased body fat, insulin resistance and inflammation.

### Folic Acid & Vitamin B12

Vitamin B12 and folic acid are essential to health and wellbeing. Maintaining an adequate level of both vitamins is important for the normal development and function of red blood cells; deficiency of either can lead to anaemia and excessive tiredness. Furthermore, vitamin B12 is vital for proper nerve function and long-term deficiency can lead to nerve damage.



### Homocysteine

Homocysteine is an amino acid. B vitamins, such as vitamin B12 and folic acid, help convert homocysteine to other products that are needed by the body. Therefore, deficiency of vitamin B12 or folic acid can cause homocysteine levels to rise. Having too much homocysteine is considered a risk factor for the development of heart disease and stroke and may increase the risk of dementia. Smoking, poor diet and an underactive thyroid can also affect homocysteine levels.

### Vitamin D

Vitamin D is essential for calcium absorption and is key to maintaining strong, healthy bones. Deficiency of vitamin D can lead to musculoskeletal problems, including bone weakness, bone pain and muscle aches. The skin generates vitamin D following exposure to sunlight, and this is the body's main source of vitamin D. Vitamin D is naturally found in only a few foods, such as eggs and oily fish. When sunlight is limited (e.g. during the winter months) or when exposure is restricted (e.g. limited time spent outdoors, use of sun-screens or little skin exposure) risk of deficiency increases.

### Iron Status

Iron Status includes measurement of key markers to evaluate iron levels in the body. Iron is an essential nutrient. It is a key component of haemoglobin, the oxygen-carrying protein found in red blood cells. Deficiency of iron can lead to anaemia, where the body produces insufficient healthy red blood cells, and tiredness, weakness and shortness of breath can develop. However, too much iron can also be damaging. If the body absorbs too much iron, the excess can build-up throughout the body and lead to problems, particularly within the joints, heart, pancreas and liver.

### Liver Health

The liver performs a huge range of functions, including removal of waste products and toxins, storage of nutrients and production of cholesterol, proteins and hormones. Therefore, a healthy, well-functioning liver is vital to overall health and wellbeing. To assess how well your liver is functioning, the Liver Health panel measures liver enzymes, albumin, bilirubin and ferritin, which together can help identify inflammation or damage to liver tissue.