



## Tests Included in the Blood Nutrition Report

### ● Basic Metabolic Panel (BMP)

The basic metabolic panel (BMP) is a group of 8 tests that measures several substances in your blood. It gives your healthcare practitioner important information about the current status of your body's metabolism (hence the name metabolic panel). The BMP provides information on your blood sugar (glucose) level, the balance of electrolytes and fluids, and the health of your kidneys. Abnormal results, and especially combinations of abnormal results, can indicate a problem that needs to be addressed and may require additional testing.

The BMP includes the following tests:

- **Glucose** – the primary energy source for the body's cells; a steady supply must be available for use, and a relatively stable level of glucose must be maintained in the blood.
- **Calcium** – one of the most important minerals in the body; it is essential for the proper functioning of muscles, nerves, and the heart and is required in blood clotting and in the formation of bones.

*Electrolytes*—these are minerals found in body tissues and blood in the form of dissolved salts. Electrolytes help move nutrients into the body's cells and remove wastes out of cells. They help maintain a healthy water balance and help stabilize the body's acid/base (pH) level. The following 4 tests are commonly called electrolytes:

- **Sodium** – vital to normal body function, including nerve and muscle function
- **Potassium** – vital to cell metabolism and muscle function, helping to transmit messages between nerves and muscles
- **Bicarbonate (Total CO<sub>2</sub>)** – helps to maintain the body's acid-base balance (pH)
- **Chloride** – helps to regulate the amount of fluid in the body and maintain the acid-base balance

#### *Kidney Tests*

- **Blood urea nitrogen (BUN)** – waste product filtered out of the blood by the kidneys, as kidney function decreases, BUN level rises.
- **Creatinine** – waste product produced in the muscles; it is filtered out of the blood by the kidneys, so blood levels are a good indication of how well the kidneys are working.

### ● Uric Acid

Uric acid is produced by the breakdown of purines. Purines are nitrogen-containing compounds found in the cells of the body, including our DNA. This test measures the level of uric acid in the blood or urine.

- **Alkaline Phosphatase (ALP)**

An enzyme found in several tissues throughout the body. The ALP in blood samples of healthy adults comes mainly from the liver, with most of the rest coming from bones (skeleton). Elevated levels of ALP in the blood are most commonly caused by liver disease, bile duct obstruction, gallbladder disease, or bone disorders. This test measures the level of ALP in the blood.

- **Detailed Thyroid panel**

A group of tests that help evaluate thyroid gland function and help diagnose thyroid disorders. The tests included in a thyroid panel measure the level of thyroid hormones in the blood.

- **Lipid panel**

Measures lipids - fats and fatty substances used as a source of energy by your body. Lipids include cholesterol, triglycerides, high-density lipoprotein (HDL), and low-density lipoprotein (LDL).

- **Complete Blood Count (CBC)**

A group of tests that evaluate the cells that circulate in blood, including red blood cells (RBCs), white blood cells (WBCs), and platelets (PLTs). The CBC can evaluate your overall health and detect a variety of diseases and conditions, such as infections, anemia, and leukemia.

- **Iron with Ferritin**

Ferritin is a blood protein that contains iron. A ferritin test helps your doctor understand how much iron your body stores. If a ferritin test reveals that your blood ferritin level is lower than normal, it indicates your body's iron stores are low and you have iron deficiency. As a result, you could be anemic.

- **Vitamin D**

Vitamin D is a family of compounds that is essential for the proper growth and formation of teeth and bones. This test measures the level of vitamin D in the blood.