Comprehensive Metabolic Panel

Topic Overview

A comprehensive metabolic panel is a blood test that measures your sugar (glucose) level, electrolyte and fluid balance, kidney function, and liver function.

Glucose is a type of sugar your body uses for energy. Electrolytes keep your body’s fluids in balance. They also help keep your body working normally, including your heart rhythm, muscle contraction, and brain function. The kidneys help keep the right balance of water, salts, and minerals in the blood. They also filter out waste and other unneeded substances from the blood. The liver helps with digestion and produces some vitamins and other substances that the body needs. It also controls the amounts of glucose, protein, and fat in the blood and releases substances that keep your immune system healthy.

Your doctor may order a comprehensive metabolic panel as part of a regular health examination. Your doctor may use this test to check on a medical condition, such as high blood pressure, or to help diagnose a medical condition, such as diabetes.

This panel measures the blood levels of albumin, blood urea nitrogen, calcium, carbon dioxide, chloride, creatinine, glucose, potassium, sodium, total bilirubin and protein, and liver enzymes (alanine aminotransferase, alkaline phosphatase, and aspartate aminotransferase).

- Albumin
- Blood Urea Nitrogen (BUN)
- Calcium
- Carbon Dioxide (Bicarbonate)
- Chloride
- Creatinine
- Glucose
- Potassium
- Sodium
- Total Bilirubin
- Total Protein
- Alanine Aminotransferase (ALT)
- Alkaline Phosphatase (ALP)
- Aspartate Aminotransferase (AST)

You may be asked to stop eating and drinking for 10 to 12 hours before you have this blood test.

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