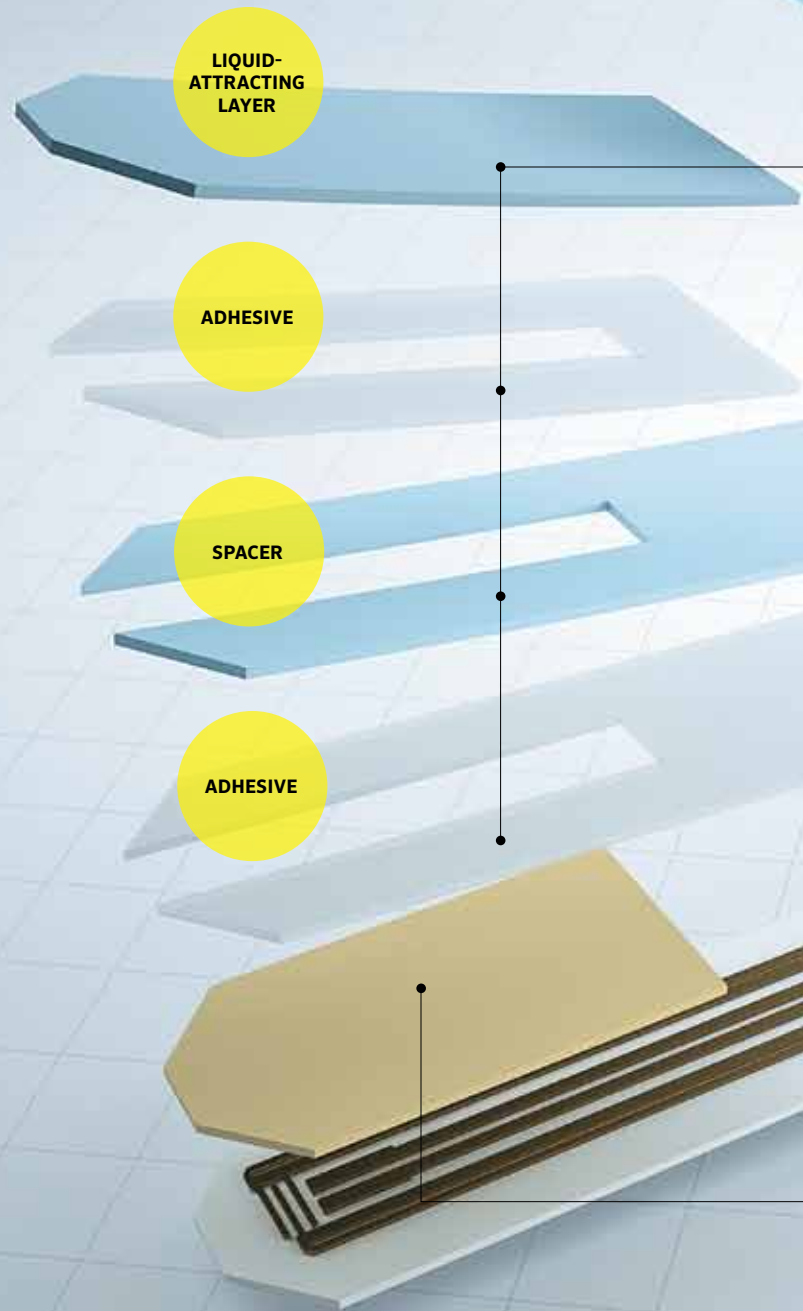


Layers of Strip Science

Each test-strip brand has its own technology and design.

This cross-section shows the key parts of a sample strip.

The Coating
The test strip is covered with an adhesive material to protect the circuit and other strip components.



The Sample Chamber

This is where the blood enters the strip. The chamber design, in part, determines how much blood is required. A narrow chamber can induce capillary action, a force that rapidly channels a drop of blood to the strip's reaction center. The chamber is often covered with a window that gives the user a visual cue that the strip is properly loaded with blood.

The Circuit

Electrons from glucose travel through a network of wires from the sample chamber to the glucose meter. The meter counts the electrons as current and calculates how much glucose it took to generate that much electricity. The meter displays that number on its screen.

The Chemistry

The chemical mixture that turns glucose into electricity consists of two basic parts, the enzyme and the mediator, among other ingredients. The enzyme is a protein that latches onto glucose in the blood sample and yanks off a couple of the sugar's electrons. The enzyme passes these electrons to a mediator, a molecule that treats the electrons like hot potatoes, quickly passing them off to the strip's circuit.

Lot

Each lot of test strips is made from a single batch of the chemical mixture that's used to generate an electrical signal from glucose.