

UW-Oshkosh researchers develop new glucose sensor

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Researchers at UW-Oshkosh have developed a new glucose sensor that promises greater stability and effectiveness than the standard enzyme-based blood testing strips.

Enzymes are tiny protein structures that function as cellular catalysts, playing an essential role in most biochemical reactions in living things. Existing blood glucose testing strips rely on enzymes, which react with the blood being tested. That reaction can be measured by a device called a glucometer.

Diabetes patients use these strips to monitor glucose levels in their blood. But an info sheet from the WiSys Technology Foundation suggests there's room for improvement.

When enzyme strips are transported, exposure to humidity and temperature changes can reduce their already short shelf lives. According to WiSys, the new glucose sensing device doesn't have this drawback due to its non-biological nature.

Inventors Yijun Tang and Shreva Malhotra, from UW-Oshkosh's chemistry department, have designed and completed initial testing for their device, which is made of conductive polymers and miniscule metal particles.

Aside from lasting longer, WiSys says the device is reusable and costs less to produce. It could be used to monitor glucose in other bodily fluids which would be

too harsh for enzyme strips, or to test samples in food production.

See more at WisBusiness.com.