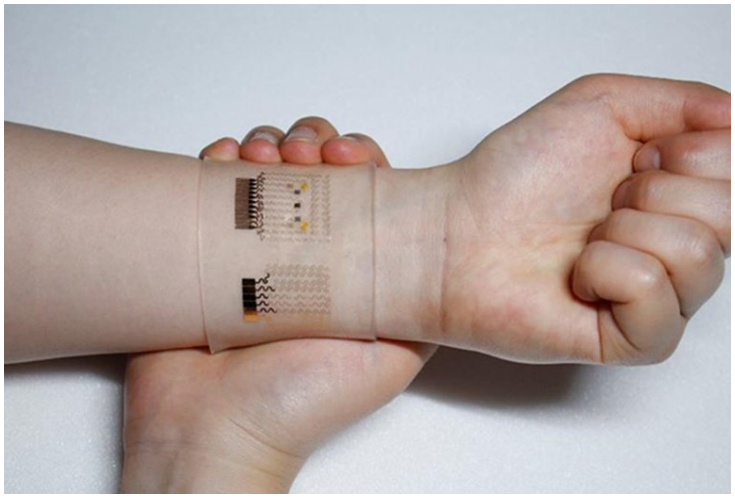
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Researchers develop paper based sensor patch for diabetics

20 September 2017 | News

The team has developed and demonstrated a self-powered, wearable and disposable patch that allows for non-invasive monitoring of glucose in human sweat.



A new paper-based sensor patch developed by researchers at Binghamton University, State University of New York could allow diabetics to effectively measure glucose levels during exercise.

The team has developed and demonstrated a self-powered, wearable and disposable patch that allows for non-invasive monitoring of glucose in human sweat. This wearable, single-use biosensor integrates a vertically stacked, paper-based glucose/oxygen enzymatic fuel cell into a standard Band-Aid adhesive patch.

The paper-based device attaches directly to skin, wicks sweat to a reservoir where chemical energy is converted to electrical energy, and monitors glucose without external power and sophisticated readout instruments.

The sensing platform holds considerable promise for efficient diabetes management, and a fully integrated system with a simple readout that can be realized towards continuous non-invasive glucose monitoring.