

UK team develops novel skin patch for diabetes

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A group of scientists at the University of Bath has created a non-invasive adhesive patch that promises the measurement of glucose levels through the skin without carrying out the painful finger-pricking blood tests among patients.

The patch does not pierce the skin, instead it draws glucose out from fluid between cells across hair follicles, which are individually accessed via an array of miniature sensors using a small electric current.

Researchers noted that the readings can be taken every ten to fifteen minutes over several hours, as the glucose keeps collecting in tiny reservoirs.

In addition, each miniature sensor of the array, in the low-cost wearable sensor, can operate on a small area over an individual hair follicle, which significantly reduces inter-skin and intra-skin variability in glucose extraction.

The team tested the patch on both pig skin and on healthy human volunteers for the study.