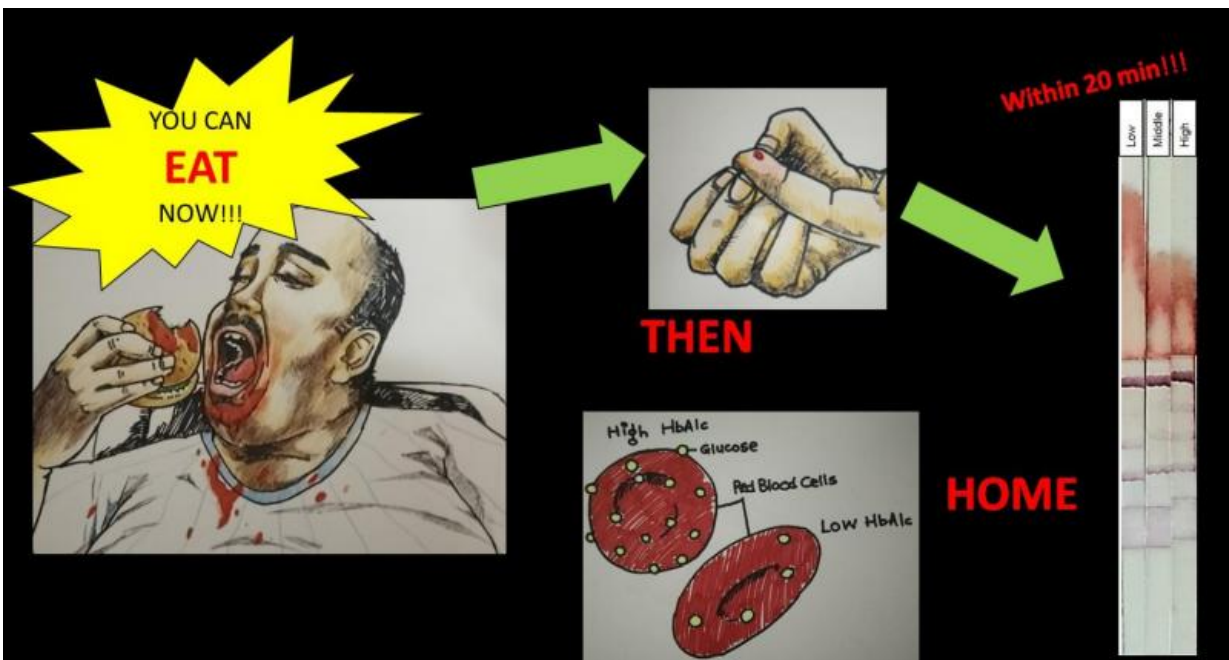


# Personal caring tool for type 2 diabetes that everyone can afford

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Blood test without fasting for type 2 diabetes patients. Credit: University of Malaya

Modern lifestyles have brought forth a series of astounding gadgets to improve the living quality and expanding lifespan. There are so many technologies created for better health care, but only so few can experience them. Type 2 diabetes, for example, is a disease spreading rampantly around the globe, where most of the diabetes-associated

mortality is found occurring at low- to middle-income regions of the world, where diabetes care is often limiting. Now, imagine a world where common people can measure their glycemic status anytime and anywhere they want, needless to fast; what's more, at an affordable price.

Utilizing the concept of simple pregnancy test, a group of researchers from University of Malaya have come out with a simple and user-friendly personal caring tool aiming to aid the diabetic patients at limited- resources regions. The developed test strip is designed to detect the biomarker for diabetes, hemoglobin A1c, HbA1c in a very simple, rapid, and cost-effective way. In fact, hemoglobin A1c is formed when glucose in the blood stream interacts with hemoglobin in red blood cells. Because of the 120 days lifespan of [red blood cells](#), the end product, HbA1c, is a good estimate of average glucose concentration in blood stream for the preceding 3 to 4 months. The test strip that tests on HbA1c therefore requires no fasting, and only a finger-prick amount of [blood](#) is needed to run the test itself, where result can be obtained within 20 min. To cater to clinical analysis, the strip can be interpreted with a reader to give numerical results on HbA1c levels. For unskilled end-users, the results can be easily interpreted by looking at the number of lines that show up on the strips.

To conclude, such simple and inexpensive tool developed by University of Malaya researchers provides a useful alternative to expensive point-of care device; thereby rendering effective diabetes care to patients at limited-resources setting so that the prevalence of diabetes-related mortality and morbidities can be better contained.

Provided by University of Malaya

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