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# US researchers develop rapid screening test for liver cancer

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**The test uses a small domino-sized plastic cartridge containing a paper membrane that selectively traps biomarkers from biological fluids.**



A team of researchers led by University of Utah in the US has developed a rapid portable screening test for liver cancer that does not involve sending a specimen to a blood lab and cuts the wait time for results from two weeks to two minutes.

This new and inexpensive test, the team is working to lower the cost to about $ 3 per test, can be administered wherever the patient is, which will be particularly valuable in developing nations with little access to hospitals.

Researchers also believe the test can be easily modified to detect infectious diseases such as tuberculosis, malaria and dengue.

The test uses a small domino-sized plastic cartridge containing a paper membrane that selectively traps biomarkers (proteins specific to a certain disease) from biological fluids. A small droplet of blood, saliva, or urine, or even a teardrop, from the patient is dropped onto the membrane.

This is followed by the droplet of gold nanoparticles, which tags the biomarkers trapped in the membrane. If the biomarkers are present, a red spot appears, signaling the patient has the disease and should seek more testing and possible treatment.