

# Digital rectal examination is not useful to early detect prostate cancers, says new research

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A common method of detecting prostate cancer may not be accurate enough as a reliable screening tool by itself, scientists have warned.

The [digital rectal exam](#) (DRE) is widely used by [medical professionals](#) to check the [prostate gland](#) with a finger for unusual swelling or lumps in the rectum as an initial check for the signs of [prostate cancer](#) in men.

In some countries, such as Germany, it is the sole method used in a national [screening](#) program for the disease.

But new research by scientists of the PROBASE trial coordinated at the German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) in Heidelberg, suggests the technique may be missing many cancers in their early stages.

The findings, which are presented today at the European Association of Urology Annual Congress in Milan, could have implications for the early detection of prostate cancer, say the researchers. They are calling for other testing methods to be used in routine screening instead.

"One of the main reasons for screening for prostate cancer is to detect it in patients as early as possible as this can lead to better outcomes from treatment," said Dr. Agne Krilaviciute, a researcher at DKFZ and lead author of the study. "But our study suggests that the DRE is simply not sensitive enough to detect those early stage cancers."

The PROBASE trial is a multicenter German prostate cancer screening study across four university sites (TU Munich, Hannover, Heidelberg, Düsseldorf) and involves 46,495 men aged 45 years who were enrolled between 2014 and 2019.

The men have since had follow-ups to assess their health in the years after the screening. Half of the participants in the trial were offered prostate specific antigen (PSA) [blood test](#) immediately at age 45 while the other half were initially offered DRE with delayed PSA screening at age 50.

Ultimately, 6,537 men in the delayed screening group underwent DRE and only 57 of these men were referred for a follow-up biopsy due to suspicious findings. Only three were found to have cancer.

When compared to the detection rate using other methods, such as a PSA test, the rate of detection using DRE was substantially lower, says Dr. Krilaviciute.

"The DRE was giving a negative result in 99% of cases and even those that were deemed to be suspicious had a low detection rate," says Dr. Krilaviciute. "Results we've seen from the PROBACE trial show that PSA testing at the age of 45 detected [four times more prostate cancers](#)."

The researchers believe one of the reasons why the DRE might be failing to detect cancers, particularly in younger men, is because the changes in the tissue in the prostate may be too slight to detect with a finger. In addition, some cancers occur in a part of the prostate that cannot be easily reached by a finger.

"Early-stage cancer may not have the size and stiffness to be palpable," said Professor Peter Albers, a urologist at Düsseldorf University who was the senior author of the study. "Separate analysis that used MRI scans before biopsies to locate cancers in the [prostate](#) showed that about 80% of these are in an area that should be easy to reach with a finger and still cancers were not detectable by DRE."

The researchers are now calling for widespread use of PSA testing and MRI scans as part of screening programs instead of DRE.

"If the aim of a screening program is to pick up cancers as early as possible and the current screening tool isn't doing that job, then that is a fundamental failure of that approach," said Professor Albers.

"We speculate in our paper that not only is the DRE not useful for detecting [cancer](#), but it may also be one reason why people don't come to screening visits—the examination probably puts a lot of men off. In Germany, for example, the participation rate is less than 20% in the screening program for men 45 to 50 years. If we were to offer PSA testing instead, more of them might be willing to come."

**More information:** Conference: [uroweb.org/education-events/38 ...  
-annual-eau-congress](https://uroweb.org/education-events/38...-annual-eau-congress)

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