

Early detection of prostate cancer

by PSA test

Numbers for men aged 50 years or older who either did or did not participate in prostate cancer screening for approximately 16 years.

	1,000 men <u>without</u> screening	1,000 men <u>with</u> screening
Benefits		
How many men have been diagnosed with metastatic prostate cancer (cancer spreading throughout the body)?	10	7
How many men died from prostate cancer?	12	10
How many men died overall?	No difference: about 322 in both groups*	
Harms		
How many men without prostate cancer experienced false alarms (false-positive test result), usually associated with unnecessary tissue removal?	-	155
How many men with non-progressive prostate cancer were unnecessarily diagnosed or treated*?	-	51

*The number of study participants was probably not sufficient to show a difference in overall mortality due to early detection. Yet, biopsies to clarify suspicious test results are associated with a risk of hospitalization and death. Unnecessary diagnoses and treatments increase the risk of heart attacks, suicide and death from treatment complications. The numbers should therefore not be considered without context. ** For example, surgical removal of the prostate (prostatectomy) or radiation therapy may lead to subsequent complications.

Short summary: Through early detection, 2 out of every 1,000 men could be saved from dying of prostate cancer. Of all men who participated in the screening, some without prostate cancer were falsely diagnosed and some were diagnosed with non-progressing cancer (overdiagnosis) and treated unnecessarily.

Sources: IQWiG. *IQWiG-Berichte* 2020(905):S19-01; Loeb et al. *J Urol* 2011;186:1830-4; Galina et al. *Int J Cancer* 2008;123:647-52.

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<https://www.hardingcenter.de/en/fact-boxes>