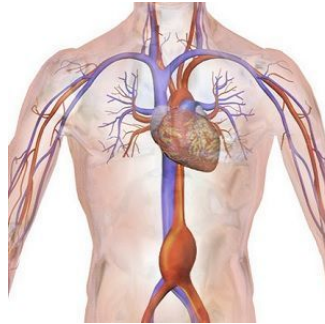


## Abdominal Aortic Aneurysm: Men Benefit from Ultrasound Screening



Men benefit from one-time ultrasound screening for abdominal aortic aneurysms (AAAs) in terms of reduced risk of dying, fewer abdominal aorta ruptures and avoidance of emergency surgery, according to a systematic review of worldwide data on AAAs. No such evidence is available for women, say researchers from the German Institute for Quality and Efficiency in Health Care (IQWiG).

An abdominal aortic aneurysm is a pathological dilation of the main abdominal artery (aorta). Its diameter varies depending on age and sex; an abdominal aorta with a diameter of 3 cm or more is called an AAA. Most AAAs cause no problems (asymptomatic), but the larger the size of AAA, the greater the danger that this large blood vessel will rupture. Ultrasound screening aims to identify, monitor, and treat an AAA before a rupture occurs.

IQWiG's review covered studies comparing one-time screening via ultrasound with a different screening strategy (eg, using a different diagnostic technique) or no screening. The focus of the assessment was on patient-relevant outcomes.

Four randomised controlled trials (RCTs) were included in the assessment: two from the United Kingdom, one from Denmark, and one from Australia. Participants were enrolled between 1988 and 1999. Three studies included only men aged 65 years or older; one of the four studies also included women, but they only comprised 6.8 percent of the study population.

Data on men aged 65 years or older were summarised at different times of analysis (4-5, 10, and 13-15 years after screening) for the outcomes "overall mortality" and "AAA-related mortality." For all of these times, the researchers noticed proof of a benefit of screening in men for both outcomes.

For women, data are only available on overall mortality at one time (4-5 years). However, due to lack of statistically significant differences between the groups investigated, the benefit of screening for AAA in women is not proven. Data on AAA-related mortality are lacking.

In addition, data on the outcomes "frequency of ruptures" and "emergency surgery" show a similar picture: In women, the available data again showed no relevant differences. In men, results differ somewhat depending on the time of analysis. Overall, however, the researchers acknowledge a benefit of ultrasound screening, as AAA ruptures and emergency surgery occur less often.

The review also found that that the frequency of elective surgery increases with screening. According to researchers, this is the specific aim of screening and is therefore to be expected. If an AAA is detected in time and a patient can undergo elective surgery, the chance of survival is considerably higher. In Germany, for example, depending on the type of surgery (endovascular or open), between 1.3 and 3.6 percent of patients die (30-day mortality).

Based on the results of this review, it thus seems meaningful to introduce one-time screening for AAA in men from the age of 65. However, as the IQWiG researchers point out in their report, there are indications that the results are not transferable one-to-one to the current situation in Germany.

Source: [Institute for Quality and Efficiency in Health Care](#)

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