There are increasing numbers of elective surgeries not only for abdominal aortic aneurysm repair but also for emergencies because of ruptured aneurysms (rAAA). Mortality rates of rAAA up to 40-50% have remained unchanged for years. Because of the elevated incidence of complications in rAAA, the overall mortality is at least 80% and shows a dismal prognosis for this group of patients. With ultrasonography, a cost-efficient, technically simple and safe method with high sensitivity is available for detecting abdominal aortic aneurysms. On the basis on an electronic Medline literature search and evaluation of data from the "voluntary quality assurance for abdominal aortic aneurysms 2008" of the German Society of Vascular Surgery (Deutsche Gesellschaft für Gefäßchirurgie und Gefäßmedizin DGG), this review presents critical analysis of the efficacy and cost-efficiency of an ultrasound-based screening programme for the early detection of abdominal aortic aneurysms. In this systematic review of the literature on AAA screening, a description of epidemiology and current situation concerning AAA in Germany will be given. The evaluation of 4 randomised studies for ultrasonic AAA screening is discussed and the recommendations of the German Society of Vascular Surgery concerning screening for AAA are highlighted.