Invasive coronary angiography and computed tomography (CT) coronary angiography directly visualise coronary anatomy but do not provide information about the presence of inducible myocardial ischaemia. Due to its excellent negative predictive value CT coronary angiography is a suitable test to exclude significant coronary artery disease. However, given its high rate of false positive results particularly in the presence of significant coronary calcification CT coronary angiography only rarely is a real alternative to invasive coronary angiography in clinical practice. The coronary artery calcium score (CACS) is a surrogate for the extent of coronary atherosclerosis and a possible marker of biological age but does not provide any anatomical or pathophysiological information. In asymptomatic patients a CACS of zero is associated with a very low likelihood of a significant coronary stenosis and a good prognosis. However, this is not the case in symptomatic patients, and thus, CACS does not play a significant role in the diagnostic work-up in symptomatic patients in daily routine.