Most vascular diseases are not limited to only one vascular territory but show a spread throughout the entire arterial and/or venous vascular system. Atherosclerosis is known as the most common vascular disease and shows clinical often relevant manifestations in the brain supplying, the coronary as well as the renal arteries and the peripheral vasculature with potentially fatal consequences like stroke, myocardial infarction, hypertension or limb loss (1, 2). Additionally other systemic diseases, e.g. diabetes mellitus or inflammatory diseases, show vascular manifestations (3). Hence, imaging not only of a symptomatic vascular territory but of the entire vascular system seems reasonable. In contrast to other modalities MRA offers a gentle and comprehensive way of imaging the vasculature of the whole body without the drawbacks of ionizing radiation, invasiveness or nephrotoxic contrast media.

Whole body exams suffered from an impaired image quality due to reduced spatial resolution for a long time. Since the introduction of dedicated whole body MR Systems, coil systems as well as parallel imaging techniques, these drawbacks could be overcome. Nowadays, there are no trade-offs needed in terms of temporal or spatial resolution when comparing single station exams to whole body exams (4).

diabetes mellitus: comprehensive assessment with whole-body magnetic resonance imaging/magnetic resonance angiography. Invest Radiol 2009; 44:242-250.