Subjective cognitive decline could be one of the earliest signs of Alzheimer’s disease, and portends risk of progression to dementia. Subjective cognitive decline can be caused by a myriad of factors, and neuroimaging biomarkers could help to identify those individuals at increased risk of Alzheimer’s disease. In this thesis, well-established and novel neuroimaging biomarkers were used to investigate the earliest changes related to Alzheimer’s disease in cross-sectional and longitudinal studies.