

Retinal Photography and Carotid Intimal Thickness Scans in Vascular Assessment

This project, which commenced in 2008 is continuing. In particular we are hoping to be able to prove that retinal photography does provide a means of predicting dementia, and by identifying this at an early stage, halt the progression. At this stage, we have demonstrated that the retinal disease as shown in the photography can be halted, but it requires long-term studies to confirm this in real terms.

We found that while the retinal photography provides a good look at cerebral vasculature, it does not provide an accurate assessment of carotid, peripheral arterial or cardiovascular risk. Carotid intimal thickness scans are invaluable in assessing carotid risk, but again it is not a perfect test, as coronary disease can be present with normal carotid (and retinal scans), so other scanning and vascular assessments are often required, eg echocardiography, stress electrocardiography (or stress echocardiography) and sometimes coronary calcium scanning or CT angiography of coronary vessels.

When the vascular system has been fully assessed, the retinal and carotid scanning are invaluable to watching progression or regression of disease.



Image to demonstrate retinal arterial damage.