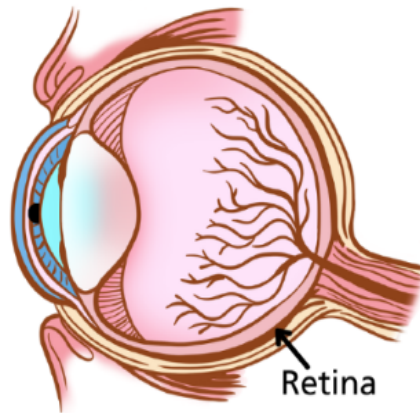


Retinal Biomarkers

of Alzheimer's Disease

The retina lines the back of the eye, converting light into signals that help us see. Recent research shows that changes to the retina may also offer early clues into Alzheimer's disease.



1

Retinal nerve fiber layer thinning

Research shows that the thin layer of nerve fibers covering the retina is often thinner in people with cognitive decline.

2

Degeneration of retinal ganglion cells

Some people with Alzheimer's have lost retinal ganglion cells, which help send visual information to the brain.

3

Changes in retinal blood vessels

Changes in blood flow and blood vessel density in the eyes have been linked to Alzheimer's disease.

4

Amyloid and tau deposits in retina

Amyloid and tau, proteins associated with Alzheimer's disease, have been found in retinal tissues.

5

Retinal damage in mice with APOE4

The APOE4 gene, which increases the risk of Alzheimer's in people, has been linked to retinal damage in mice.