

# Macular Disease

## A Biomarker of Aging

### *Macular Disease, Alzheimer's Disease, and Cardiovascular Disease Connected!*



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Age-related macular degeneration (AMD) is a medical condition which usually affects older adults and results in a loss of vision in the center of the visual field (the macula) because of damage to the retina. It occurs in "dry" and "wet" forms. It is a major cause of blindness and

visual impairment in older adults (>50 years). Macular degeneration can make it difficult or impossible to read or recognize faces, although enough peripheral vision remains to allow other activities of daily life.

Many people with AMD progress to Alzheimer's Disease.

### AMD Stages

The National Institutes of Health classifies AMD into three "dry" stages and one "wet" stage. The dry stages are 1. Early; 2. Intermediate; and 3. Late. In Wet AMD, blood vessels are so weak that they leak blood.

The current standard of medical care is to observe AMD through the dry stages and treat the eye when bleeding is observed.

We are developing a new "standard of health" to detect AMD at its earliest stages, perform a root-cause analysis for reasons why you have AMD, and treat both your eye and your body so that both become healthy again.



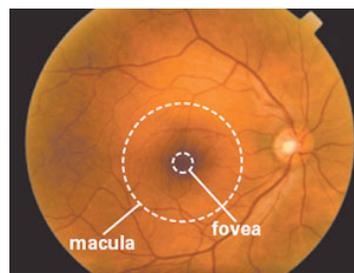
Eye diseases almost never occur in isolation.

A sick eye = a sick body.

### The Macular Disease - Alzheimer's Connection

Recent research at Harvard Medical School and Tufts clearly demonstrates that macular degeneration shares risk factors with cardiovascular disease. Patients with AMD almost always show elevated blood markers for inflammation that indicate cardiovascular disease. This makes sense because, in the wet form of AMD, the vessels are so weak, blood leaks from the capillaries.

AMD is a serious eye disease and a



compelling biomarker for disease that is progressing throughout your body (systemically). Our approach is to perform a detailed diagnosis for the root-causes of AMD to develop treatment targets that arrest its progress. Our studies show that AMD and AD have overlapping root causes.