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| **Parameter** | **Measured Zone** | **Interpretation and Reported Association with AD** |
| ***Retinal Vessel Caliber*** | | |
| **Central Retinal Arteriolar Equivalent (CRAE)** | Zone B & C | * Changes in Central retinal arteriolar equivalent (CRAE) and central retinal venular equivalent (CRVE) indicate generalized retinal vessel narrowing or widening, and may suggest subtle microvascular dysfunction35. * It has been reported that increased CRVE is associated with incident dementia46, vascular dementia46, and decreased CRVE and CRAE is associated with Alzheimer’s Disease47,48. |
| **Central Retinal Venular Equivalent (CRVE)** | Zone B & C |
| ***Retinal Vascular Network Parameters*** | | |
| **Fractal Dimensions (dF)** | Zone C | * Fractal dimension represents a “macro” measure that summarizes the branching complexity of the retinal vascular network30; a larger value indicate a more complex branching pattern. * It has been suggested that reduced retinal fractal dimension was associated with dementia47,48,59and cognitive function60. |
| **Tortuosity**  **(TORT)** | Zone C | * Reflects the general straightness of the retinal vessels, with a smaller tortuosity value indicates straighter retinal vessels * It has been suggested that increased venular tortuosity and arteriolar tortuosity are associated with AD62 |
| **Branching Angle**  **(BA)** | Zone C | * The optimal value for the BA is approximately 75o 36 * Alteration in branching angle may indicate changes in blood flow63,64, endothelial dysfunction 65,66 and attenuation in oxygen saturation 67. |
| **Branching Coefficient (BC)** | Zone C | * The optimal value should be approximately 1.26 36. * Deviation from optimal value of BC may increase energy cost, reducing the efficiency of circulation and metabolic transport37. |