

### **Age Related Macular Degeneration (ARMD):**

#### **Modifiable Factors that may Decrease the Risk of Progression to Advanced Forms of ARMD**

##### **• Smoking**

- Smoking can increase risk of ARMD by as much as 2.4X

##### **• Diet**

- Increasing the consumption of foods rich in certain carotenoids, in particular dark green, leafy vegetables, may decrease the risk of progression
- Increased intake of breads & cereals (e.g. Oatmeal, whole meal/grain breads) may lower risk of early ARMD
- Higher total fat intake increases the risk of progression to the advanced forms of ARMD
- Higher red meat intake may increase the risk of progression to the advanced forms of ARMD
- Higher fish intake (at least 2x per week ) has been associated with as much as a 50% lower risk of ARMD progression
- Higher intake of nuts can reduce the risk of ARMD progression
- Daily serving of fruits or vegetables that are yellow/orange in color reduce risk
- Heavy alcohol consumption (more than three standard drinks per day) maybe associated with an increased risk of early age-related macular degeneration (ARMD)

##### **• Vitamins & Supplements**

- AREDS 2 supplements: lowers the risk by about 25- 35%
- § Vitamin E 400 IU
- § Vitamin C 500 mg
- § Zinc 25 mg (Caution in men with prostate symptoms)
- § Copper 2 mg
- A high dietary intake of omega-3 fatty acids has been associated with a 38 % reduction in the risk of late ARMD
- The largest and most recent study (AREDS 2 Study) however, showed no benefit of omega-3 fatty acids in reducing the risk of late ARMD
- Higher intake of docosahexaenoic acid (DHA) & eicosapentaenoic acid (EPA) may significantly reduce the risk of advanced AMD

- Higher intake of DHA & EPA however was shown by the AREDS 2 Study to be of no benefit in reducing the risk of late ARMD
- Daily intake of Vitamin D may be protective against ARMD, especially in women; reducing risk of ARMD by up to 50%
- Daily intake of Vitamin B6 (50 mg), Folic acid (2.5 mg) & Vitamin B12 (1 mg) may be protective against ARMD, especially in women; reducing risk of ARMD by up to 30%
- Lutein & zeaxanthin supplementation has also been shown to reduce risk of progression by up to 50% and may partially reverse the loss of visual function in early ARMD patients.

#### • **Aspirin**

- Regular consumption of Aspirin or other non-steroidal anti-inflammatory drugs (NSAIDs) may decrease the risk of progression
- Patients who take aspirin daily are possibly up to 2X more likely to have late stage macular degeneration than those who never take aspirin.

#### • **Weight & Exercise**

- Overall and abdominal obesity increases the risk for progression to advanced ARMD
- High blood pressure and elevated cholesterol increases the risk for progression to advanced ARMD
- More physical activity tends to decrease risk.
- lower incidence of ARMD in those who practice vigorous running

#### • **Sunlight & Ultraviolet light**

- Several studies have shown that there are no deleterious effects of sunlight exposure in ARMD
- Other studies have shown an association between other sunlight aggravated eye conditions and ARMD
- The largest and most recent review of all the studies, does show an association between sunlight exposure as a risk factor for ARMD
- Overall it is not a bad idea to wear UV absorbing sunglasses and hats in those individuals at risk for developing ARMD