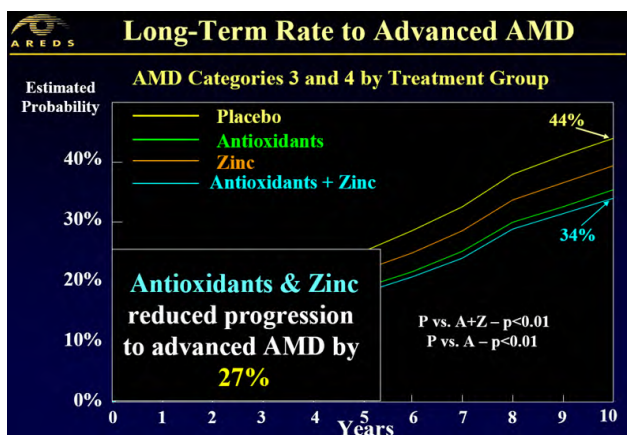


# Age Related Macular Degeneration Mr Lee

**Vitamin Supplementation – Current recommendation is “Viteyes II”**  
**This has all 3 of the vitamins below know to be of benefit in AMD in one Capsule.**



## 3 Types acting at different levels

### 1. Retinal Photoreceptor Protection

Results from the long-anticipated AREDS study, published in the October 2001 issue of Archives of Ophthalmology, show that taking supplements containing high levels of antioxidants and zinc significantly reduced the risk of advanced age-related macular degeneration (AMD). This study



has now been extended to 10 years with continued benefit, The second study AREDS II is near completion 2013. Its formula removes the Vitamin A, which caused controversy with smokers, and adds in as well Omega 3 and Lutein. Currently two preparations are available, though only one in the UK.

**UK Viteyes II** is the new AREDS II formulation from Viteyes. It provides a high dose of vitamins C & E, zinc, copper as well as 10mg of lutein, 2mg of zeaxanthin and 1,000mg of Omega 3 in line with the AREDS II United States National Eye Institute formulation. It is available in the UK. Ensure you get the correct one Marked Viteyes II. It is 3 gels a day at £20 - £23.00 / month. Available Chemist/Health food shops. (though some difficulty has been experienced but are available on line or via mail order.



[www.viteyes.co.uk/acatalog/Viteyes\\_II.html](http://www.viteyes.co.uk/acatalog/Viteyes_II.html). Tel: 0845 838 6724 Some General Practitioner's may be able to prescribe but is variable best to ask. If Three times per day is too much to remember, can be taken with two tablets in the morning and one in the evening if it is easier to remember.

**NHS Option.** In Hillingdon and Harrow an option General Practitioner's seem to be able to use to meet the AREDS II formulation is to prescribe:

1. PerserVision Lutein two Gels per day
2. Together with 1000mg of Omega 3 (Omacor is one option check you are not taking this already from the doctor as some heart patients are) Other areas may be able to prescribe at least the Omega 3. (Do use or take Cod Liver oil)

**A Recent Royal College Of Ophthalmology Focus report also does recommends the use of AREDS Vitamin formulations.**



USA AREDS II will report in 2013 and is looking at the benefit for Omega3 and Lutein addition to the PreserVision Vitamins. In USA you can now buy PreserVision AREDS II formulation which is 4 Gel tablets a day as apposed to two tablets currently. It is expected that this formulation will be available in the UK next year. In mean time take PreserVision Original and add in Omega 3 and Lutein as described below.

## **Nutrof® Total Drink - The only drinkable eye nutritional by Thea**

For those that cannot take tablets this is a drink that is rich in the AREDS vitamins and is an alternative. It is distributed from Spectrum in the UK on 0845 521 1290.

Web site is [www.spectrum-thea.co.uk](http://www.spectrum-thea.co.uk)



**VitEyes Original Formula Powder.** This AREDS I formula vitamin supplement for Age related macular degeneration is the same as their tablet preparation or PreserVision Original Gels but is in a powder which one mixes with water to drink. It is a once a day preparation. To make this up to AREDS II Formulation one would need to add Omega 3 fish oils and Lutein. Both are available in liquid or spray form if taking tablets is an issue.

## **2. OMEGA 3 Fish oils – Anti-Inflammatory**

Increasingly interest in this area at present. These fatty acids are mainly found in fish and nuts. These fatty acids have anti-inflammatory properties and may be anti-angiogenic, which may mean that they protect against the formation of the new blood vessels found in the wet form of AMD. A number of studies have found a reduced risk of AMD in patients who have diets rich in omega-3 poly-unsaturated fatty acids. For instance in the AREDS study there was a fifty percent reduction in advanced AMD for the group who had the highest intakes compared to the group who had the lowest. It didn't take much of the omega 3 poly-unsaturated fatty acids to be effective because the highest intake group on average ate only one serving of broiled or baked fish a week. The National Eye Institute's AREDS 2 trial will also test if supplementation with omega 3 poly-unsaturated fats reduces the progression of Age Related Macular Degeneration



It will be a few years before we know the result. However it may be appropriate to take 1000mg of Omega-3 Oils in tablet form, as well as a diet rich in oily fish (Mackerel, sardines, Anchovies and Tuna). These can be bought cheaply from Chemist Direct (0845 259 0175) at 1.89 per bottle, or at local health food shops.

Do not however use Cod Liver oil as this contains vitamin A as well which you may well be taking in PreserVision Original Gels.

In addition if you are taking Warfarin Omega 3 can on occasions potentiate the effect of warfarin. Just let you Warfarin clinic know you are on Omega 3 so they can adjust the dose if necessary.

For Vegetarians you may need to take the 3 groups separately and use this source of vegetable Omega3 there is Omega 3 From Flaxseed oil from Healthspan.co.uk on 0800 73 123 77

### 3. Lutein – Natural sunglasses

In addition Lutein 10mg & 2mg zeaxanthin is included in the AREDS II trial as well and is worth taking for maximal vitamin protection until we know the results of the trial.

Macushield is a Lutein and Zeoxanthin containing vitamin currently undergoing randomized trials. It has been shown to increase the levels in the blood stream. There has been recent publicity in the press over it.



Protect your eyes from direct sunlight by wearing UV Sunglasses/ shields and a brimmed hat/cap. Eg. Sunshield Wraparounds 100% UVA/B Brown NOT blue Sunglasses.

### General advice.

**There is no one answer to the correct Vitamins to take.**

**Some people find that taking Viteyes II three times a day, means they often forget the Lunchtime pill, so find twice a day supplementation using OcuVite PreserVision and Separate Omega 3 works best for them.**

1. Eat a Healthy diet that includes at least 5 portions of fruit or vegetables per day
2. Stop smoking is as always good advice as Smoking has been shown to increase the risk of Age related macular degeneration.
3. Check your vision every 2 weeks in each eye by covering one eye and then the other. If you notice any change, distortion of straight lines etc.. then have your eyes reviewed by your optometrist or 4. Ophthalmologist. Often People use Amsler chart to do this, but any change of vision should be checked out.
4. Have a regular check with your Optometrist or Ophthalmologist at least once a year.

## Essential Fatty Acids

Michele Lee

Omega-3 fatty acids are found in oily fish like salmon and flaxseed and canola oils



ADAM.

Essential fatty acids are fatty acids that are needed by the body to maintain normal growth and good health. There are two main groups – Omega 3 (n-3) and Omega 6 (n-6). As the body is not able to manufacture them directly they need to be taken from food sources.

Both Omega 3 and Omega 6 compete for the same metabolic enzymes. It is therefore important that the amount of each fatty acid consumed is taken in the correct ratio to ensure the body's metabolic function is maintained. Some research has suggested that if there is an imbalance and too much Omega 6 is consumed then conditions such as osteoporosis, mood disorders, inflammatory conditions, obesity, cardiac conditions and cancer may develop.

Omega -3 is required for healthy neurotransmission in the brain, good eye health and it helps reduce inflammation, maintain normal cholesterol and reduce hypertension. The optimum ratio for Omega 3 : Omega 6 is from 1:1 to 1:4. Typical western diets favour a high consumption of Omega 6 with very little Omega 3. Some food oils have a good ratio of Omega 3 to Omega 6 while others do not.

Oils with a high content of Omega 6 and no or very little Omega 3	Oils with a good ratio of Omega 3 and 6
<i>Sunflower</i>	<i>Hempseed</i>
<i>Peanut</i>	<i>Flaxseed</i>
<i>Cottonseed</i>	<i>Butternut</i>
<i>Grapeseed</i>	<i>Walnut</i>

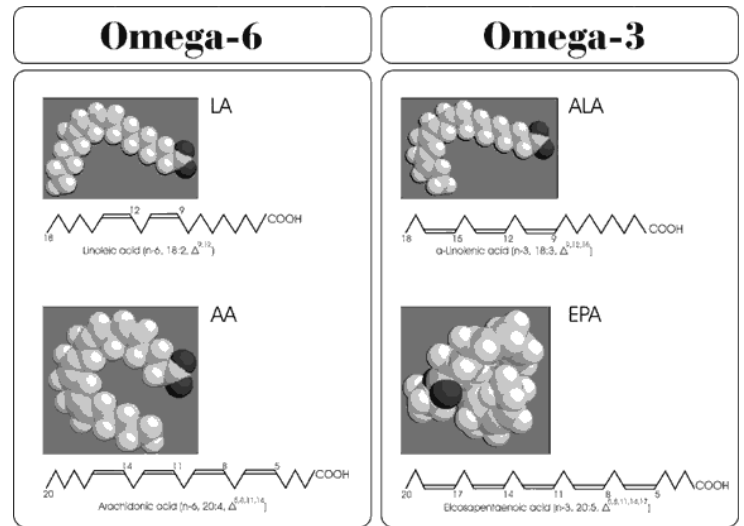
As most diets have a tendency to be high in Omega 6 it is vital that foods rich in Omega 3 are eaten.

### **Do:**

- Cook with an oil which has a good ratio of Omega 3 and 6 e.g. Walnut oil ( Most supermarkets sell this),linseed oil, flaxseed oil
- Eat the right foods:

Oily fish	Vegetables & fruit	Seeds & oils	Other
<i>Salmon</i>	<i>Cauliflower</i>	<i>Canola oil</i>	<i>Tofu</i>
<i>Herring</i>	<i>Cabbage</i>	<i>Flaxseed and oil</i>	<i>Oregano</i>
<i>Mackerel</i>	<i>Broccoli</i>	<i>Mustard seeds</i>	<i>Cloves</i>
<i>Anchovies</i>	<i>Strawberries</i>	<i>Walnuts and oil</i>	<i>Meat (especially when animal is grass fed)</i>
<i>Sardines</i>	<i>Squash &amp; spinach</i>	<i>Hemp seed oil</i>	<i>Milk &amp; cheese</i>
<i>Oysters</i>	<i>(have small quantities)</i>		<i>(especially from grass fed cows)</i>
<i>Scallops</i>			
<i>Fresh tuna</i>			

- Take care with eating foods rich in Omega -6 e.g. avocado, most nuts, cereals, whole grain breads, but remember that it is important to have the correct ratio of omega -3 and 6 so do not have a diet with no Omega 6
- Supplements may be taken but ensure that they contain all of the following acids – A.L.A. (a-linolenic acid), E.P.A. (eicosapentaenoic acid) and D.H.A. (docosahexaenoic acid)
- DHA is considered in some studies to be the most important for delaying the progression of degenerative eye conditions such as macular degeneration and retinal detachment.



### Don't

- Cook with oils high in only omega – 6 e.g. sunflower, soyabean, corn oil
- Take supplements that only contain one of the omega – 3 acids
- Eat oily fish more than twice a week due to the risk of high levels of mercury and toxins
- Take fish *liver* oils if you are taking Vitamin A supplements (as they also contain Vitamin A)
- Olive Oil has Very little Omega 3.

### Cautions and Contra indications of taking Omega 3

Seek medical advice before taking Omega -3 supplements if you:

- Are taking anticoagulant medication seek medical advice before taking Omega-3 supplements as they act as a blood thinner
- Have blood clotting disorders
- Have an allergy to seafood
- History of ventricular tachycardia or ventricular fibrillation
- Diabetes

### Possible Side Effects

Slight fishy taste in mouth – “fishy burps”

*The following side effects have been reported occasionally:*

- Diarrhoea
- Heartburn
- Nausea
- Nosebleeds
- Bruise more easily

Dietary Advice written by Michele Lee 2011  
Main Handout updated 15/11/2011

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