

# Vitamins and Minerals

## Treating Age Related Macular Degeneration (ARMD)

Light may affect the eye by stimulating oxygen consumption, which can lead to the production of highly reactive and damaging compounds called free radicals. Antioxidant vitamins may work against this activated oxygen and help slow the progression of ARMD. This theory of antioxidants is being challenged at this time however. Wearing sunglasses may help the patient deal with bright light environments.

Zinc is one of the most common minerals in our body and is very concentrated in the eye, particularly in the retina and macula. Zinc is necessary for the action of over 100 enzymes, including chemical reactions in the retina. Studies show some older people have low levels of zinc in their blood. Because zinc is important for the health of the macula, supplements of zinc in the diet have been shown to slow down the process of ARMD.

The levels of antioxidants and zinc that are shown to be effective in slowing ARMD's progression cannot be consumed through your diet alone. These vitamins and minerals are recommended in specific daily amounts as supplements to a healthy, balanced diet.

If you choose to take vitamins, check the labels to see if the vitamins contain at least a



sufficient DAILY amount of Zinc (60 mg to 100 mg) and Lutein (2 to 6 mg). Also, check how many tablets it takes to get this amount per day. Some brand name vitamins that you can try are Preservision (with Lutein, two a day), Ocuvite Extra and Icaps. Most of the "AREDS" formulation vitamins do not have sufficient zinc therefore read the label. Take these vitamins BEFORE meals, as they will cause less indigestion that way. You must become a label reader as some of the vitamin formulations depend on taking two or up to four capsules a day. When reading the list of supplements on the bottle, note at

### The Keys to Health

Although the exact causes of ARMD are not fully understood, multiple recent scientific study shows that antioxidant vitamins (vitamins C, E, and beta carotene) and zinc may reduce the impact of ARMD in some people with the disease. The study showed that among people at high risk for late-stage macular degeneration, a dietary supplement of vitamins C, E and beta carotene, along with zinc lower the risk of the disease progressing to advanced stages by about 25 to 30%. However, the supplements did not appear to benefit people with minimal ARMD or those who have no evidence of macular degeneration. It also would not help relatives of patients with ARMD. For relatives: take a standard multivitamin a day, do not smoke, do what is heart healthy (check blood pressure, diet, exercise and monitor an Amsler Grid).

*P Van Houten*

the top of the list the following:  
"Serving size: 2 tablets"  
or "Serving size: 4 tablets"

This means that the manufacturer wants you to take two or four tablets a day to be able to get the amounts that are listed in the table. This is a daily commitment to take these in order to change the outcome of this problem. If you are getting side effects of any kind, talk to your Doctor and see if the side effect is serious (stop the vitamin) or is something you can deal with. There may be alternatives to the brand you are taking that may be causing the problem. It is very important to remember that vitamin supplements are not a cure for ARMD, nor will they restore vision you may have already lost from the disease. However, specific amounts of certain supplements do play a key role in helping some people at high risk for advanced ARMD to maintain their vision. You should speak with your eye doctor to determine if you are at risk for developing advanced ARMD, and to learn if supplements are recommended for you.

The label below is confusing! In the top left corner the label states that the serving size is two but they added a second column on the top right side marked "PerDay (4 tablets)" with the right amount of Zinc and Lutein (yellow arrows) in this column. They mean to tell you that you need 4 tablets a day to get the right amount of these two nutrients. Possibly two tablets in the morning with breakfast and two with supper or dinner.

The Zinc, Lutein and more recently Omega 3 recommendations are the minimum to slow the process of ARMD. Other nutrients like Bilberry and others have not reached the 98% confidence in medical studies making them less likely to be helping the problem. It is a little like changing the oil in your car every 3000 to 5000 miles, it does not make the car run faster but it does make it run longer, so, do not think that you will see better by taking the vitamins. You may last longer with better results if you take them consistently.

Supplement Facts			
Serving Size 2 Tablets		Per Day (4 tablets)	
	Per Serving Amount% Daily Value	Per Day (4 tablets) Amount% Daily Value	
Calories	6	12	
Total Carbohydrates	1 g <1% **	2 g <1% **	
Vitamin C	256 mg 427%	512 mg 853%	
Vitamin D	200 IU 50%	400 IU 100%	
Vitamin E	215 IU 717%	430 IU 1433%	
Vitamin K	12.5 mcg 16%	25 mcg 31%	
Thiamin	0.75 mg 50%	1.5 mg 100%	
Riboflavin	5 mg 294%	10 mg 588%	
Niacin	5 mg 25%	10 mg 50%	
Vitamin B6	1 mg 50%	2 mg 100%	
Folic Acid	200 mcg 50%	400 mcg 100%	
Vitamin B12	3 mcg 50%	6 mcg 100%	
Biotin	15 mcg 5%	30 mcg 10%	
	Per Serving Amount% Daily Value	Per Day (4 tablets) Amount% Daily Value	
Pantothenic Acid	5 mg 50%	10 mg 100%	
Calcium	170 mg 17%	330 mg 33%	
Phosphorus	70 mg 7%	140 mg 14%	
Iodine	75 mcg 50%	150 mcg 100%	
Magnesium	50 mg 12.5%	100 mg 25%	
Zinc	42.3 mg 282%	84.6 mg 564%	
Selenium	20 mcg 29%	40 mcg 57%	
Copper	1.8 mg 90%	3.6 mg 180%	
Manganese	1 mg 50%	2 mg 100%	
Chromium	60 mcg 50%	120 mcg 100%	
Molybdenum	37.5 mcg 50%	75 mcg 100%	
Potassium	40 mg 1%	80 mg 2%	
Lutein	3.33 mg †	6.67 mg †	
Zeaxanthin	1.67 mg †	3.33 mg †	
Lycopene	0.15 mg †	0.3 mg †	

## Info

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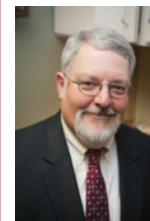
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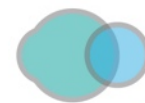


Dr Van Houten has been practicing in North Carolina for 24 years doing Retina and Vitreous treatments only.

DR KURT JACKSON



Dr Jackson is a fellowship trained retina specialist who has joined Dr Van Houten.



East Carolina Retina  
CONSULTANTS