

**OCULAR SURFACE DISEASE HANDOUT**  
Chronic Eyelid Disease – Blepharitis – Dry Eye Syndrome

**Treatment Plans:**

\_\_\_\_\_ 1.) Drink more water. Goal of 8 – 8 oz glasses a day. More if using caffeine.

\_\_\_\_\_ 2.) Ocusoft lid wash. Apply a hot, moist wash cloth to eyes for 30 sec. Press on the eyelids to express the glands on both upper and lower lids. Use the cleaning pad by swiping the lids about 10 times while the eyes are closed.

\_\_\_\_\_ 3.) Artificial Tears. Brand \_\_\_\_\_, used \_\_\_\_\_ times per day.

\_\_\_\_\_ 4.) Omega supplements. Nordic Naturals ProOmega or Ultimate Omega. Recommend to use 2000 mg/day or 4000 mg/day Can purchase in our office for a discount, online, or some local retailers.

\_\_\_\_\_ 5.) Azasite / Besivance. Use \_\_\_\_\_ per day for \_\_\_\_\_. This drop is thick, and it will blur your vision slightly after its use. Apply one drop and smear over the lids. Do not refrigerate. Store the bottle upside down to make it easier for drop to come out.

\_\_\_\_\_ 6.) Steroid drop. Lotemax \_\_\_\_\_ times per day for \_\_\_\_\_.

\_\_\_\_\_ 7.) Restasis. Used \_\_\_\_\_ per day for \_\_\_\_\_. It may sting with it's use, so you may need to put in an artificial tear first. It may also be used with the steroid.

\_\_\_\_\_ 8.) Allergy drop: \_\_\_\_\_ Used once / twice a day.

\_\_\_\_\_ 9.) Tear Saver plugs. These are used after we've tried other treatments, and usually in more moderate to advanced stages of ocular surface disease.

\_\_\_\_\_ 10.) Oral antibiotics.

\_\_\_\_\_ 11.) Tranquileyes. May use for cold or hot compresses. [www.eyecoco.com](http://www.eyecoco.com)

**Follow up plan:**

\_\_\_\_\_ 2 weeks

\_\_\_\_\_ one month

\_\_\_\_\_ other \_\_\_\_\_

\_\_\_\_\_ annual exam

2/10/11

## **OCULAR SURFACE DISEASE HANDOUT**

### **Chronic Eyelid Disease – Blepharitis – Dry Eye Syndrome**

Ocular Surface Disease (OSD) is a group of conditions affecting the eyelids, cornea, and tear film. Bacteria on the skin and eyelashes can cause a condition known as blepharitis. There may also be a deficiency in the oil producing glands of the eyelid called meibomian glands. Inflammation often plays a prominent role in affecting the various glands and tissues of the eye in their ability to produce a normal tear quantity and quality. The lacrimal gland, which produces the watery part of the tear film, may have reduced tear production due to inflammation. OSD is caused by a deficiency in one or more of these areas of the eye, and will affect the tear quantity and quality. The goal of our treatment plan is to improve the condition and to make you and your eyes feel better.

**DRY EYE:** A condition that affects the surface of the eye because of either a low amount of tear production or tears that evaporate too quickly off the eye. Dry eye conditions may be caused by the normal aging process, environmental factors, medications, disease, and poor blinking habits. Some tasks, such as prolonged computer use, reading, or driving can make the condition worse. Diseases such as arthritis and Sjogren’s Syndrome can also cause dry eye symptoms. Treatments may include artificial tear supplements, drugs such as restasis, and omega 3 fish oil supplements. In more moderate to severe cases, we can use special “tear savers” to block the flow of tears away from the eye.

**BLEPHARITIS:** A condition that can be caused by bacteria on the surface of the eyelids and lashes. This may cause chronic infection and inflammation to the lids and surface of the eye. Treatments generally start with eyewashes to clean the skin surface of bacteria and other debris, and may include prescription drops or ointments.

**MEIBOMIAN GLAND DYSFUNCTION:** A condition affecting the oil secreting glands of the upper and lower eyelids. The outer layer of the tear film consists of lipids, or oils, that help to reduce the evaporation of the tears off the eye. A deficiency in these glands will cause a decrease in the necessary secretions, and can be a result of infection or inflammation. Treatments generally include hot compresses, massage to express the glands, and lid washes. We may also use prescription medications, and studies are beginning to show benefits in using omega 3 fish oil supplements.

## **OCULAR SURFACE DISEASE – OMEGA 3 SUPPLEMENTS**

Many of the problems with ocular surface disease (OSD) are due to inflammation of the ocular tissue. We can treat the inflammation with prescription drops such as restasis, but we prefer to start treatment with natural dietary supplements. These consist of omega 3 fatty acids derived from cold water fish oil. The body is able to use the active ingredients from fish oil more effectively. Studies have shown a significant decrease in dry eye symptoms in a majority of patients through the use of omega 3 supplements alone. Studies also suggest that omega 3s help to reduce the risk of developing macular degeneration.

There are specific essential fatty acids (EFA) that we are targeting with the omega 3 fish oils. They are DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid). DHA and EPA have been shown to have anti-inflammatory and neuro-protecting properties throughout the body. My specific goal is to reduce the symptoms of dry eye, and these products also help in reducing the risk of developing age related macular degeneration (ARMD). There are other benefits from the use of omega 3s such as improving cardiovascular functioning and cognitive health.

Where do we get DHA and EPA in our diet? The best source is from cold water fish. You could eat much more fish in your diet, but you would have the risk of taking in the toxins that have been shown to be in the food source. It's best to use a purified and filtered source that uses manufacturing techniques to ensure freshness. This freshness will eliminate the bad fish taste and burp that comes with most fish oil products. They taste bad because they've been oxidized, and are rancid. We recommend a product called ProOmega and Pro DHA Eye by Nordic Naturals. They are high quality products that have concentrated DHA and EPA, and are exceptionally fresh, thus eliminating the bad fish taste. Dr. Salchak and his family use these products daily.

Studies indicate that a target therapeutic dosage of a combination of DHA and EPA should be 2000 mg/day. Dr. Salchak may prescribe up to 4000 mg/day initially of Nordic Naturals ProOmega (4 gel caps) in order to receive the targeted amount of active ingredient DHA and EPA. He may reduce the dosage to a maintenance level of 2000 mg/day (2 gel caps) after several months depending on its affect on the ocular surface disease. There is another Nordic Natural product called ProDHA Eye that also has lutein and zeaxanthin, which are essential antioxidants used in the treatment and prevention of macular degeneration. Dr. Salchak uses 2 gel caps of the ProOmega and 1 gel cap of the ProDHA Eye on a daily basis.

## OMEGA 3 FISH OIL SUPPLEMENTS

Recommended products and where to purchase:

### Dry Eye Treatment:

\_\_\_\_\_ Nordic Naturals ProOmega 1000 mg gel caps (also sold as Ultimate Omega)  
- one month supply = 120 gel caps = 4000 mg/day

- 1.) Dr. Salchak's office: \_\_\_\_\_ (1) 120 count container: \$44  
\_\_\_\_\_ (3) 120 count containers: \$129  
\_\_\_\_\_ (1) 60 count container: \$29

2.) Online at [www.naturaldispensary.com](http://www.naturaldispensary.com). They offer a 5% discount (net \$47.45) for one 120 count container of ProOmega. You will need to set up an account the first time you log on, and it will ask you for the prescribing doctor's PIN (Dr.Salchak NNA-10602). You can also set up autoship.

3.) Online at [www.nordicnaturals.com](http://www.nordicnaturals.com). Direct from the manufacturer.  
\_\_\_\_\_ (1) 120 count container: \$49.95

You can also find a retail store near you by using the locator on their website. Go to the area called "General Public" and go to the sections called "Find a store near you." You can put in your zip code, and it will show you retailers that sell the products in your area.

### Macular Degeneration TreatmentL:

\_\_\_\_\_ Nordic Naturals Pro DHA Eye 1000 mg gel caps (also sold as UltimateDHA Eye)  
one month supply = 60 gel caps = 2000 mg/day

1.) Dr. Salchak office: \_\_\_\_\_ comes only in a 60 count container: \$44

2.) Online at [www.naturaldispensary.com](http://www.naturaldispensary.com). They offer a 5% discount (net \$47.45). You will need to set up an account with a log in and password. It will ask you for the prescribing doctor's PIN (Dr.Salchak NNA-10602). They can also set up autoship.

3.) Online at [www.nordicnaturals.com](http://www.nordicnaturals.com). \$49.95

You can also use the store locator on their website. This product is more of a specialty blend of omega 3, lutein, and zeaxanthin. There may be less availability of similar products in other brands.