Omega 3 Fatty Acids (N-3FA)
Part 1

The American Heart Association has suggested Omega 3 Fatty Acid (O3FA) intake in the form of routine fatty fish such as salmon for patients without Atherosclerotic Coronary Artery Disease (CAD), fish oil supplements in patients with CAD, and high dose O3FA (about 4000 mg/day) in patients with high triglycerides. Early studies demonstrated that the major effect of O3FA on the lipid profile is to lower triglyceride levels between 10-45% depending on the severity of the triglyceride level and the dose of O3FA used. At the same time there is also a tendency for the LDL cholesterol (bad cholesterol) to rise between 0-30%, for LDL particle size to enlarge, and for HDL cholesterol (good cholesterol) to increase between 0-7%. The purpose of this review is to provide a modern perspective based on recent studies of the role of O3FA as they relate to the management of abnormal lipids. (It should be noted that current lipid terminology refers to these molecules as N-3 Fatty Acids not Omega- 3 Fatty Acids). I will, however use these terms interchangeably throughout this review as much of the literature continues to use the old terminology.

Until the availability of a prescription O3FA in 2004, which contains 840 mg of EPA and DHA (the two main O3FAs) and 60 mg of other O3FA in a 1000 mg tablet, the treatment of high triglycerides with omega-3 fatty acids required the ingestion of large amounts of unconcentrated fish oil. Also at this time it was identified that most of these over the counter products were not regulated for content of the environmental contaminants such as heavy metals, pesticides, and dioxin. Now that many insurance companies and Medicare drug plans pay for the prescription O3FA sold under the name Lovaza, many Americans have begun to start taking fish oil. The most common complaint is an unpleasant fishy taste if one burps. Fish oils are naturally highly unstable and susceptible to oxidation which accounts for their rancid conversion and patient intolerance. One of the most common ways to reduce oxidation and thus maintain shelf life, maintain freshness, and reduce oxidation is to add Vitamin E to supplements. I generally tell my patients to take their fish oil at night. Another practical way to improve tolerance and reduce the fishy aftertaste of the liquid O3FA is to refrigerate once opened. If one is taking the capsules, it is said that refrigeration before use will reduce the fishy taste. The way the manufacturing process is performed is the most important measure to reduce the aftertaste and remove contaminants. It could be argued that when a patient describes a rancid horrible and bad taste that the product was poorly purified by the manufacturer. Unfortunately the supplement industry is basically unregulated. I have my O3FA made by one of the few companies that pay to have an oversight board watch their manufacturing process. I tell my patients who need to take high dose fish oil to use the highly concentrated liquid form while others may take the pills. I think it is extremely important that patients look on the side of the bottle of the capsule because most purchased O3FA say 1000 mg but may contain as little as 300 mg of EPA and DHA. Thus one would have to take around 7 tablets if they are trying to take 2000 mg a day rather then thinking the correct dose would be 2 of the 1000 mg capsules. I have gone around to the big retail and wholesale stores and the health food stores and was amazed what I saw. I recently have

made them available on my website store due to high patient demand. In the next posting we will discuss Environmental toxins that my possibly in the preparation in depth and I will share with you the recommendations from the National Lipid Association to healthcare professionals regarding the use of O3FA supplements.