Summary of the October, 2009 Program

"How To Grow Younger… A Preferred Alternative to Aging"

Presented by Norman H. Anderson, MD, PA, Radiation Oncologist
(Robert Boissoneault Oncology Institute)

The North Central Florida Post Polio Support Group welcomed Dr. Norman Anderson, a Radiation Oncologist from Ocala. Dr. Anderson has spoken with our group twice before and he always presents programs with information that is of interest and importance to us.

Dr. Anderson said he likes to talk about surviving and our group has experience with surviving. The aging process is what we want to fight so that we can survive better.

Aging is a biological process that we all must go through. In his practice, Dr. Anderson calls it maturing and what we want to do is slow it down.

The human cell is like a car engine; it has functions that produce energy the same way that a car engine does. But it also produces waste products and these products are called radicals. If the radicals are not handled correctly, they build up and as they build up, the "engine" works more inefficiently. And so, as a result, when we are in our teens and our early twenties, we produce a lot of waste products (radicals) which gradually accumulate. That eight cylinder engine that has been firing on all eight cylinders could wind up firing on only five cylinders. The performance is going to be a lot less and the fuel consumption is going to be more and in the human body we call that aging.

Inflammation causes aging, and this is due to radical formation. Inflammation is caused by a number of things, but Dr. Anderson is going to use sugar as an example. You cannot eliminate sugar from your body and that is not the intent. What we can do is moderate how sugar goes into our body, because excessive amounts of sugar cause inflammation to occur.

The protein in our body is made up of little sub units called amino acids. If you start stringing amino acids together we call that a polypeptide, and when we get up to about a hundred or more it is called a protein. One of the proteins in our body, particularly in relation to our skin, is collagen which we will use as a example. Collagen is nothing more than protein and it is formed in spirals that are connected to allow resilience. In inflammation, sugar molecules get deposited on the spiral and when they do, the inflammation breaks the bonds down that hold these spirals together and that's called glycation. And when glycation works long enough, it is what causes our skin to sag. And then the glycation can cause abnormal bonds between other areas of the spiral and when they bond tightly together, it causes a wrinkle. And so what is occurring on your skin is an example of the inflammatory process. This can occur anywhere in your body and so if we look at your blood vessels, especially in your heart, the inflammation that can occur, because of things like sugar, will cause abnormal bonds to form. When it does it creates a sticky surface. That sticky surface will adhere cholesterol. As it builds up over time you develop coronary artery disease. It's the occurrence of inflammation that is a process of aging.

The same thing happens in the brain. The blood vessels in the brain over time can form abnormal bonds between collagen and create narrowing of the passageways that can lead to a stroke. When you think about it, every organ of your body will undergo this same process and that process if one of inflammation. So what we would like to do is be able to change the course of events and remove the inflammation.

Sugar is only one example of the whole process. One of the first things we would want to do in our diet is to cut down on the simple sugars that we take in. That puts a tremendous strain on our body, a tremendous strain on our pancreas and again causes more inflammation to occur.

Fruits and vegetables are carbohydrates, which are complex sugars. When they are broken down, they become simple sugars. But it's the rate at which they are broken down that becomes so important. So when you take sucrose, which is table sugar, into your intestines, it is broken down into fructose and glucose. Fructose and glucose are very small molecules that can very quickly be absorbed into your body. And amazingly enough, your brain uses glucose as its primary source of fuel.

So don't think that you are going to be able to eliminate sugar. It's the way your body takes the sugar in that's important. You want it to be taken in gradually. And when you eat vegetables, all of those things that as a child you loved to hate, the breakdown process is a very slow process and it doesn't tax the body and cause inflammation to occur.

Now what we want to do is to find natural chemicals that can reverse this inflammatory reaction. Stress, amazingly enough, causes inflammation as well. It's just as bad as sugar. It releases more cortisol in your body from the adrenal glands which cause this inflammatory reaction to occur. So it's important to try to reduce the stress in your life.

There are two chemicals that will reduce this inflammatory process. The first enzyme that Dr. Anderson discussed is Co-Enzyme Q-10. The research on Co-Enzyme Q-10 started at the University of Minnesota in 1957. At that time the doctors at that institution were looking for benefits of Co-Enzyme Q-10 to the cardio-vascular system. They found that higher doses of Co-Enzyme Q-10 can reduce the incidence of cardio-vascular disease. For patients with congestive heart failure a significant dose of Co-Enzyme Q-10 could actually take the patient out of congestive heart failure. If your body does not have enough Co-Enzyme Q-10 within the cells, they cannot produce enough energy to function. So this enzyme is critical! Your body will make Co-Enzyme Q-10. It comes into the body in those foods that you loved to hate as a child: broccoli, asparagus, and those green leafy vegetables. But it comes into your body in the form of Co-Enzyme Q, absorbed through the intestines to the liver. It is then packaged together to form ten of them, which is then called Co-Enzyme Q-10. It then goes to every cell in the body and is utilized to develop energy for that cell to function. As we mature, our bodies produce less of this enzyme, so when you are Tim Tebow, you are producing about 5 milligrams a day, and at our age we are producing about two milligrams a day. If you are taking a statin, an anti-cholesterol medication like Lipitor, you are going to produce none. The reason you will produce nothing, is because the same pathway in the liver that produces Co-Enzyme Q-10, is the same pathway that also produces cholesterol, and a statin is extremely effective in blocking the production of cholesterol. Since you cannot stop

taking your cholesterol medication, and you want to produce Co-Enzyme Q-10, then you need a supplement. And if you don't supplement (about 400 milligrams a day with no side effects), your cells will be firing at 5 cylinders instead of 8. That's what those doctors from Minnesota discovered in 1957; if you have higher levels of Co-Enzyme Q-10 your heart performs more efficiently. When you look at it, it's not amazing. The heart is a muscle and when you allow every cell in that muscle to function more efficiently, you are going to get better performance. And so that's why these patients were coming out of congestive heart failure. The Japanese government was smart at that point since they patented Co-Enzyme Q-10. Until about four years ago, all of the Co-Enzyme Q-10 in the world was under that Japanese patent.

The research continued. They looked at senility and dementia whose incidence went down when doses of Co-Enzyme Q-10 went up. This is because it also improved the blood supply so that the cells of the brain were getting a better energy source and also more oxygen. People who developed periodontal disease noticed dramatic improvement in their gums with the utilization of Co-Enzyme Q-10.

The researchers went further and discovered that diabetics had better control of their blood sugar levels if they were on Co-Enzyme Q-10. Again, that makes sense because it allows every cell to metabolize or function more efficiently. More recently, the research at Emory University in Atlanta indicated that for patients with Parkinson's disease, high doses of Co-Enzyme Q-10 will reverse not only the symptoms of Parkinson's disease, but also the presence of the disease in about half of the patients who are treated. We are talking about doses of 2000 milligrams a day for patients with Parkinson's disease and there are no side effects with this level of medication. The 2000 milligrams were like turning on a light switch. Less of a dose had no effect, so if they used 1000 milligrams it would not have been effective. There are two areas of the brain in which Parkinson's disease destroys the cells, and by using Co-Enzyme Q-10, after about six months, research shows that in about half the patients studied, there is actual regrowth of normal brain cells in these two areas of the brain where the cells had previously been destroyed.

The last area of research that's been done with Co-Enzyme Q-10 has been done with cancer. The following data is the most recent data published by the National Cancer Institute, so it is from a respected source. The three studies that were done were with breast cancer; however, if this works for breast cancer, it can be assumed that it could work for other forms of cancer because the underlying causes are similar.

The three studies were done in Denmark and all of the patients studied had an advanced form of the disease where it had spread beyond the breast into the bones, liver and brain. There were 34 women in the study that were placed on an average of 400 milligrams of Co-Enzyme Q-10 a day. These women had already gone through conventional medical treatment and had elected not to continue with it and that's why they were eligible for the study. Of the thirty four women after a year and a half, it would have been predicted that four of the thirty four women would have died of the disease. None had died. The study was continued for an additional six months after which it would be expected that six of the thirty four would have died. None had died. Their requirement for pain medication if they had bone cancer had significantly been reduced. Their appetites and quality of life had significantly improved. Three of the patients had been re-operated on because they knew at the time of diagnosis there was visible residual disease within the breast tissue.

After the new surgery, the tissue was looked at under the microscope and there was no residual disease. It is believed that when the Co-Enzyme Q-10 breaks down in the cell, it becomes an anti-cancer agent. Since the Co-Enzyme Q-10 is used in every cell in the body, this would create anti-cancer agents throughout the body.

Dr. Anderson has used Co-Enzyme Q-10 on ten of his current patients with significant results. He is not proposing that the enzyme should be used as a substitute for regular medication; however, since there are no side effects or interaction with other medication and it is not habit forming, it is up to you if you wish to try it. He suggests that if you are using it for your general well being, you would want to use a minimum of 100 milligrams a day. Co-Enzyme Q-10 is fat soluble, so if you purchase it in gel form, it already has oil in it, but if you purchase it in powder form, you will need to mix it with oil such as extra virgin olive oil so that it can be absorbed. It can be purchased over the counter and can be costly, so you may want to shop around for the best price.

The second agent Dr. Anderson talked about was Alpha Lipoic Acid. Alpha Lipoic Acid is both fat soluble and water soluble so no matter how you take it in your body, it will be absorbed. Alpha Lipoic Acid is used by every cell of the body and is the most powerful anti-oxidant that we know of. So if you want to get rid of those radicals, those waste products, Alpha Lipoic Acid will give you the greatest punch for your buck. It is 400 times more powerful than vitamin C and vitamin E combined. It will regenerate Co-Enzyme Q-10, so if you take Alpha Lipoic Acid at the same time, you will get more value from Co-Enzyme Q-10, and Alpha Lipoic Acid is cheaper.

Alpha Lipoic Acid stimulates the production of a tripeptide, L-glutathione, which is an extremely important detoxification protein in your body, particularly in your liver. People with all kinds of hepatitis respond beautifully to treatment with Alpha Lipoic Acid. It will actually cause the re-growth of normal liver cells that have previously been destroyed. People with low levels of auto-immunity and even people with diabetes can be helped with Alpha Lipoic Acid.

Getting back to those wrinkles, what does Alpha Lipoic Acid do for them? Those bonds that were destroyed by the sugar will actually be repaired with Alpha Lipoic Acid. If you were to take the powder out of a capsule and make a paste out of it and put it on your face over night, your wrinkles would disappear, however, this is not practical. You would have to continue to do this every night. But imagine what it can do to your entire body when taken internally! All of those abnormal sugar bonds that were formed can actually be repaired by this chemical. So the same thing that works for the collagen on your skin also works to regulate internally in your body. Nuclear Transcription Factors are something that causes destruction of good collagen, and so wrinkles appear. As we mature, our body's ability to regulate this destruction goes down, so the inflammation that we are normally exposed to, but never seemed to bother us when we were in our twenties, now has a much more dramatic effect when we mature. And so wrinkles are the result of this inflammatory process and its caused by these Nuclear Transcription Factors. Alpha Lipoic Acid redirects what collagen is being destroyed, and now rather than good collagen being destroyed, bad collagen gets reabsorbed and eventually disappears. The next question is, how much do you take a day These two chemicals may not work for everyone, and since they are alternative medicine, your doctor may not recommend them. Also, Alpha Lipoic Acid and Co-Enzyme Q-10 have not been studied in people

with Post Polio Syndrome. However, it can't hurt if you want to see what affect they may have on you and after about six months, if anyone wants to try it, maybe you can let North Central Florida Post Polio Support Group know the results.

Dr. Anderson recommends a minimum of 100 milligrams. You should take it with food as it can be irritating to the stomach. Alpha Lipoic Acid will not interfere with any other medication that you may be taking and is not habit forming.

Dr. Anderson concluded the program by graciously answering our questions. We thank him and look forward to having him join us again for future programs.

Summarized by Sharon Daszczynski

Co-Enzyme Q-10 and Alpha Lipoic Acid are powerful antioxidants and may or may not be right for you. As far as is known, neither has shown negative results when taken along with prescription medications, however we recommend you talk with your physician about your unique situation.
Alpha Lipoic Acid and Co-Enzyme Q-10 have not been specifically studied in people with Post Polio Syndrome.