

# No Disease – Ever! Unlocking The Power of Oxygen

by Frank Shallenberger, MD, HMD

I trust that the unassuming title of this paper caught your eye. “No Disease – Ever!” What the heck is that supposed to mean? Has he got some kind of special supplement that I don’t know about? Or is he just shooting off his mouth? Sorry; but to borrow a line from Nancy Pelosi, you’ll have to read the article to find out. But here’s something that you already know. There are tens of thousands of people every year who live out long lives and never get a chronic disease. So how do they do that? I think I know. And I’ll tell you how.

But first, let me digress to an equally important topic: money. Do you have any idea how much money it costs people to be sick? I hadn’t a clue until a remarkable report came out in the *Boston Globe* titled “Retired Couples May Need \$240,000 for Health Care.” It was written by Mark Jewell and published by the Associated Press on May 9, 2012.

The author used data compiled by Fidelity Investments that determined what the average out-of-pocket costs for medical expenses would be for a couple who were both 65 years old if they lived to their life expectancy. For men that is 82 years old, for women 85. That number came out to be a whopping \$240,000! That includes the cost of Medicare premiums for our couple, which amounts to about \$93,000 for both Medicare Part A and Part B. The net difference comes to \$147,000! That’s \$147,000 extra

money in that couple’s pocket for not getting sick.

But that’s not all. \$240,000 is just the average number. 50% of those people will be paying more than that. Some will be paying twice that. And it gets worse. These costs don’t even include dental expenses or long-term care, which could easily add up to thousands more.

The way I figure it is, if I can only stay healthy until I’m 82, it will be like someone writing a check out to me for \$74,000 or more. Wow, that’s something this man can relate to – feeling and functioning at a high level, being medication free, and being \$74,000-plus richer. So with that in mind, I guess I shouldn’t complain too much about paying for that gym membership, all the tests, and all those supplements. But can it really be done? Yes, it can!

Right now there are an estimated 80,000 people in the US who are more than 100 years old. Virtually all of these people have been completely free of disease all their lives. I have quite a few patients in their mid- to late 80s who are free of disease, fully functional, and on no medications.

Redd Fox once said, “Imaging all those health nuts lying in hospitals dying of nothing.” Obviously, the healthier you live your life, the less the chance of getting a disease. But is there a central foundation to this story? Is there a process that goes on in the body that is at the very core of

what makes us more or less vulnerable to disease? The answer is yes. So I’m going to ask you discover it yourself right now. Simply hold your breath for the next 60 seconds, and then read on.

What happened? Did you feel good? Did you become weak, dizzy, anxious? Did your heart pound? Did you feel like you might be dying? Did your blood pressure go up? Clearly there is absolutely nothing as critical to our health as oxygen metabolism. And yet as critical as it is, virtually every doctor you will see in these United States will never once test it in his or her patients. Why? Because we were taught in school that as long as you are breathing, have normal lungs, and have a normal oxygen blood level, your oxygen metabolism must be optimal. But here’s the thing: That is just not correct.

There is much more to any nutrient than simply how much you take in. The other aspect is how efficiently you use the nutrient. You can take in vitamin B6 all day long, but if you can’t efficiently use it, you are going to be mostly wasting it. This is also true of oxygen. You can be breathing good air and have normal levels of oxygen in your blood, but that in no way means you are using it efficiently.

*Oxygen utilization* is the term that I coined to refer to how efficiently your body uses the oxygen that you take in. And now we are getting down to business. *Because your oxygen*

*utilization is the single most important predictor of your risk for degenerative disease and premature aging.* It's not what you take in that determines your health – it's what you use. How do I know? Because for the past 12 years, I have been measuring the oxygen utilization on each and every one of my patients whether they are sick or well. And after looking at literally thousands of patients, I noticed an absolutely stunning statistic.

Every single patient who had cancer or any other chronic disease had a very significant decrease in his/her oxygen utilization. 100% of them! That goes for an otherwise "healthy" woman with a cancerous breast lump. It also goes for the "healthy" man on meds for hypertension. Combine that observation with this one. Over the same 12 years, I never once saw anyone with healthy oxygen utilization come down with cancer, a heart attack, an autoimmune disease, or any other chronic disease. Not one. As long as their oxygen utilization was in the pink, 100% of them appeared to be completely invulnerable to illness.

What would be the reasons for these incredible observations? I can think of two. The first is free radical production. All doctors agree that free radical excess is at the heart of aging and chronic disease. But what determines your level of free radical production? You guessed it – it's the efficiency of your oxygen metabolism. The greater your oxygen utilization, the less free radicals you produce. The worse your oxygen utilization, the more you produce. It's that simple. But there's another reason.

Oxygen utilization is the most global and sensitive marker for health that there is. That's because, as important as it is, the process is very vulnerable. Almost anything will disrupt it. So when someone's oxygen utilization is optimal, it means that virtually everything in that person's lifestyle and environment is matching up perfectly with their genetics. No wonder they don't get sick.

But is there any other evidence that decreased oxygen utilization is the root of disease? Yes, lots of it.

Oxygen is metabolized in little bubbles in each cell called mitochondria. Remarkably, in a truly healthy person, mitochondria make up almost 50% of the entire mass of a cell. That's how important they are. Roughly 10% of your entire body weight is mitochondria. And here's the important part. Your oxygen utilization is a direct indicator of how well your mitochondria are functioning.

If you search the US National Library of Medicine website PubMed for "mitochondria and aging," you will find 6297 papers linking aging to decreased mitochondrial function. If you search for "mitochondria and disease," you will find 16,318 citations. And if you search for mitochondrial function and any particular degenerative disease that you can think of, you will find hundreds of references for each disease. All of these papers directly tie oxygen utilization to both aging and disease.

Today we are still led to believe that as long as we feel good and our physical examinations and routine blood tests are normal, then we are healthy. But this is just not true. There are many people out there who meet all these criteria and yet have very poor oxygen utilization. In fact, we know that long before people actually get sick, they have been on the road to disease for years. This road is called decreased oxygen utilization.

So, how can oxygen utilization be measured? Here's how I do it. I use an FDA-approved pulmonary gas analyzer. This equipment can measure how much oxygen disappears into your body; in other words, how much oxygen you are using. I make that measurement while you are resting quietly in a recliner. Then I put you on a bicycle and I measure how much oxygen you are using during various levels of exertion. But at the same time that the analyzer is measuring how much oxygen you are using, it

is also measuring how much carbon dioxide you are making. Why is that?

It's because as your body uses oxygen it generates carbon dioxide as a byproduct. Don't tell Al Gore, but every breath he takes, he is contributing to the carbon dioxide in our atmosphere. But here's the thing. When you are using oxygen efficiently, you generate less carbon dioxide. And when your use of oxygen is inefficient, you make more carbon dioxide. So the efficiency at which a person uses oxygen depends on their ratio of oxygen consumed to carbon dioxide produced at specific levels of exertion.

When I determine how efficiently my patient is using oxygen, I compare it with what would be typical for a person who is healthy and young. I call the result their energy quotient, or EQ. If their EQ is 100%, that means that they are using oxygen as efficiently as a healthy young person. That's the goal. The higher your EQ is, the less likely that you are ever going to get a disease. As I mentioned above, I have never seen anyone with an EQ over 100% come down with any disease, period. So now let me show you how oxygen utilization testing works in the real world with a couple of real cases.

The first patient's name is Frank. Frank is 67 years old. He started having his EQ measured back when he was 55. Each year was the same; his EQ was a remarkable 140–160. This means that his oxygen utilization was 40% to 60% better than the average young man's. There was no way that Frank was going to get sick with any disease with an EQ that good.

But starting somewhere in his early 60s, Frank started to get overconfident. He slacked off on his exercise schedule. His life became more complicated, and he became more stressed and less fit. Oh yes, and by the way, he got 5 years older. Sound familiar? So what happened?

Frank's EQ started to drop every year. When he was 66, it had fallen



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to 104. That's certainly respectable for a 66-year-old, but not up to his former glory. And then came the big tap on the shoulder. Just a few months ago, it dropped to 72! Frank had lost his invulnerable status. And he was starting to wonder if he was going to be able to collect that \$75,000 that Fidelity Investments had promised him. And here's the punch line. Frank wasn't just any patient. Frank is me!

So here I am at age 67, feeling and functioning great at every level, but knowing that unless things change, I might not be that way for long. Without that wake-up call, I would never have guessed that I was going downhill. So seven months ago, I started to clean up my lifestyle. I got more consistent with my supplements and exercise, and I decreased my stress load. Last month, my EQ had come up to 87. Still not there, but at least I'm on my way. Here's a different kind of case.

Just yesterday I had a 59-year-man named Chris come in for his annual oxygen utilization testing. Normally Chris tests extremely well. But 14 months ago he had a hip replacement and the prosthesis was releasing cobalt. For the past seven months his blood levels of cobalt were five times the upper limit of normal. He felt great but was concerned that the cobalt might be interfering with his health. It wasn't. His EQ was an astounding 160%, the best it had ever been. This

is great information for Chris, because it assures him that even with these elevated levels of cobalt, he is still in good health and at no risk for disease. Of course we will continue to test him every year to make sure he stays that way.

Even from just these two examples, you can see why the first thing I measure in my patients is their oxygen utilization. I think it is the most important test anyone can have. Most of the time, especially in the over-40 crowd, the results indicate that help is needed. And fortunately, most of the time it improves.

What are the key issues that turn up for most people? They're things like stress, carbohydrate excess, nutrient deficiencies, hormonal deficiencies, inflammation, heavy metal toxicity, pharmaceutical toxicity, decreased circulation, chronic infections (think intestinal, dental, and sinus here), and inadequate sleep. So these are the things we work with. And by retesting their EQ at regular intervals, we can find out if what we are doing is actually working.

And here's the good news. This testing system is now commercially available. So the days when doctors treat their patients without ever having a clue as to what their oxygen utilization is are now officially over. The name of the testing process is Bio-Energy Testing. You can find the closest doctor offering the test in the Bio-Energy Testing Centers list found at [www.bioenergytesting.com](http://www.bioenergytesting.com). If you go to the video page on my website, [www.antiagingmedicine.com](http://www.antiagingmedicine.com), you

can access for no charge several lectures that I have given on oxygen utilization and health.

By the way, there is a ton of other important information you can get from the Bio-Energy testing process, including metabolic rate, fat burning rate, resting fat metabolism, heart function, lung function, functional strength, exercise data, and diet data. Your doctor can use all of that information to help improve your EQ if it needs help.

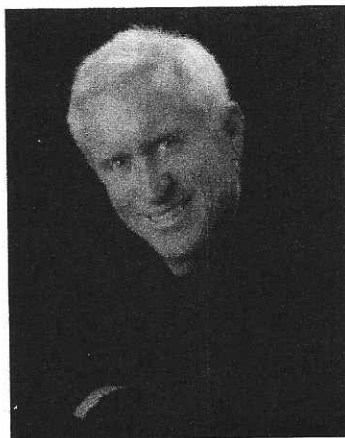
Try to make it a point this year to find out how you are doing. If your oxygen utilization is great, then you know that you are on the right path. If not, at least you are forewarned, and can make the appropriate changes before it is too late.

### Financial Disclosure

Dr. Shallenberger is financially associated with Bio-Energy Testing LLC and holds a patent on the Bio-Energy Testing process.

### References

- Beal MF. Mitochondria, oxidative damage, and inflammation in Parkinson's disease. *Ann N Y Acad Sci.* 2003 Jun;991:120-131. Review.
- Dean W. *Biological Aging Measurement*. 2nd ed. Los Angeles: Center for Bio-Gerontology; 1988.
- Duchen MR. Mitochondria in health and disease: perspectives on a new mitochondrial biology. *Mol Aspects Med.* 2004 Aug;25(4):365-451.
- Jewell M. Retired couples may need \$240,000 for health care. AP. May 9, 2012. Available at <http://news.yahoo.com/retired-couples-may-240-000-health-care-040554853-finance.html>.
- Krieger C, Duchen MR. Mitochondria, Ca<sup>2+</sup> and neurodegenerative disease. *Eur J Pharmacol.* 2002 Jul 5;447(2-3):177-188. Review.
- Lamson DW, Plaza SM. Mitochondrial factors in the pathogenesis of diabetes: a hypothesis for treatment. *Altern Med Rev.* 2002 Apr;7(2):94-111. Review.
- Lee HC, Wei YH. Mitochondrial alterations, cellular response to oxidative stress and defective degradation of proteins in aging. *Biogerontology.* 2001;2(4):231-244.
- Lesnfsky EJ, Hoppel CL. Ischemia-reperfusion injury in the aged heart: role of mitochondria. *Arch Biochem Biophys.* 2003 Dec 15;420(2):287-297. Review.
- Levine SA, Kidd PM. *Antioxidant Adaptation: Its Role in Free Radical Pathology*. San Leandro, CA: Allergy Research Group; 1985.
- Medicare 2014 costs at a glance [Web page]. Medicare.gov. <http://www.medicare.gov/your-medicare-costs/costs-at-a-glance/costs-at-a-glance.html>.
- Sastre J, Pallardo FV, Vina J. The role of mitochondrial oxidative stress in aging. *Free Radic Biol Med.* 2003 Jul 1;35(1):1-8.
- Shallenberger F. *Bursting With Energy*. Laguna Beach, CA: Basic Health Publications; 2007.
- . The energy deficit theory of aging and disease. *Original Internist.* March 2008;15(1).
- Shigenaga MK, Hagen TM, Ames BN. Oxidative damage and mitochondrial decay in aging. *Proc Natl Acad Sci USA.* November 1994;91:10771-10778.
- Trounce I, Byrne E, Marzuki S. Decline in skeletal muscle mitochondrial respiratory chain function: possible factor in ageing. *Lancet.* 1989 Mar 25;1(8639):637-639.
- Wei YH, Lu CY, Lee HC, Pang CY, Ma YS. Oxidative damage and mutation to mitochondrial DNA and age-dependent decline of mitochondrial respiratory function. *Ann N Y Acad Sci.* 1998 Nov 20;854:155-170.
- Wenzel U, Nickel A, Daniel H. Increased carnitine-dependent fatty acid uptake into mitochondria of human colon cancer cells induces apoptosis. *J Nutr.* 2005 Jun;135(6):1510-1514.



Dr. Shallenberger is a five-time grandfather and four-time father. He has been practicing alternative/integrative medicine since 1978. He is the president of the American Academy of Ozonotherapy and vice president of the Society of Orthomolecular Health Medicine. Dr. Shallenberger has revolutionized the practice of anti-aging and preventive medicine by developing a method to measure mitochondrial function and oxygen utilization. He has written two popular books describing this method, *The Type 2 Diabetes Breakthrough* and *Bursting With Energy*, and has authored numerous papers in the international peer reviewed literature on ozone therapy and oxygen utilization. He is also the editor of *Real Cures* alternative medicine newsletter. Dr. Shallenberger has just been elected to serve as a charter member of the International Scientific Committee on Ozone Therapy. He is the developer of Prolozone, an injection technique that has been shown to regenerate damaged joints, herniated discs, and degenerated joints, tendons, and soft tissues.