

Don't Let Hindsight Become "Blindsight!"

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As a visual artist, both as a photographer and as a painter, I have been very aware of the importance of protecting my eyesight. Of all the tools available to a visual artist, none are more important than having two healthy eyes. Whether we are a photographer, painter, sculptor, weaver, dancer, what have you, we communicate through the visual sense. I've scheduled regular eye exams, performed eye exercises, taken vitamins, and worn safety glasses to protect my eyesight. Recently, however, I experienced an alarmingly fast and frightful change in my eyesight.

The Events

Sitting in my ophthalmologist's office, today, I have been recapping the events leading up to my visit. In the first week of November of this year, with another scorching hot Phoenix, Arizona summer just a memory, I noticed that I wasn't quite focusing my eyes very well and that I seemed to be more thirsty than usual. My cardiologist had recently prescribed a new blood pressure medicine and I thought, perhaps, that might have been the cause. After all, I had been battling a water retention problem all the long, hot summer. By the end of the second week of November my eyesight worsened to the point that I could not see the television set clearly from across our small living room. A glass of ice water was my constant companion that I refilled regularly. I placed a call to my doctor's office, and in typical HMO fashion, an appointment was scheduled 2 weeks hence. In the meantime, my eyesight worsened each day and my thirst grew such that I was drinking 48 ounces of fluids every 1 hour to 1½ hours! I lost 18 pounds in about 2 weeks. Finally, I had to adjust my computer screen display to settings for the visually impaired. By this time I was truly frightened!

Meanwhile, I began suffering severe muscle cramps. I had been consuming and passing such large quantities of fluids, I was flushing my body of much needed electrolytes. I couldn't concentrate or remain focused on tasks. I was getting irritable with my family and friends. One early morning, a few days before my doctor's appointment, I was sitting at my computer finishing a response to an image thread posted on NPN. I rose to get out of my chair and the room started to spin. I fell to my knees but I could not stand up without experiencing severe dizziness. I called out for my wife to help me! Marsha placed a call to 911 and soon paramedics surrounded me. My vital signs were checked and found to be acceptable. An EKG confirmed that I was not having a heart attack. My responses to the paramedic's questions seemed labored and disjointed. As I was placed on a gurney and wheeled to the ambulance I heard someone mutter the word "stroke". Oh, God! Not me! Not now!

The emergency room physician checked my vital signs. All appeared stable except for my blood pressure which was much too high. A diuretic was ordered. Blood samples and urine samples were taken and rushed to the lab. The attending physician started to question my terrified wife and me. My answers were slurred and disjointed, Marsha's more pointed as she recapped the events of the last 4 weeks. An hour later, with my test results in hand, the attending physician gave me a healthy shot of insulin. I had been suffering from diabetes for all this time. A glucose tolerance test at my regular doctor's office, 4 days later, confirmed that I have Type II diabetes.

My doctor placed me on Glucovance, a pill therapy for Type II diabetics. Within three days, my relentless thirst abated and my fluid consumption returned to normal. Within a week my eyesight returned. Further monitoring of my blood sugar levels indicated that my daily dosage of Glucovance needed to be increased. And then it happened again. My eyes could no longer focus while wearing my glasses. Progressively over a week's time, my eyesight changed such that I could see better without my glasses than I could while wearing them. By the time another week was over, my eyesight improved so much that I could drive my car for the first time in 15 years without wearing my glasses! I scheduled an appointment to see my ophthalmologist as soon as possible.

What is Type II Diabetes?

There are three types of commonly occurring diabetes. Type I diabetes is a condition in which the pancreas cannot produce the hormone, insulin. Insulin is necessary for the transfer of glucose (the primary fuel for our living cells) into our body's cells. Without insulin the cells starve for fuel. Type I diabetes, originally referred to as "juvenile diabetes", occurs in children and young adults. Only 5% to 10% of diabetics are Type I diabetics.

Gestational diabetes affects approximately 3% of pregnant women. Gestational diabetes occurs when hormones from the placenta block the effectiveness of the mother's insulin and results in high levels of glucose in a pregnant woman's bloodstream. Gestational diabetes goes away after pregnancy, but the woman has a 2 out of 3 risk of gestational diabetes returning with future pregnancies.

Of the 17 million diabetes sufferers in the United States, 90% to 95% of diabetics suffer from Type II diabetes. Type II diabetes was once known as "adult onset diabetes". Type II diabetes results when the pancreas no longer produces enough insulin for your body's needs or the pancreas doesn't produce the proper type of insulin. Without insulin, blood glucose rises to dangerous levels and can have catastrophic effects on your eyes, kidneys, nerves, and heart. Additionally, your body's cells starve for fuel.

Tragically, 5.9 million diabetes sufferers (30% of the total number of diabetics) aren't even aware they have this disease! Type II diabetes primarily afflicts those over 40 years of age and who may be moderately obese to severely obese. Those individuals who are not capable of aerobic exercise or who avoid aerobic exercise are at an even greater risk of developing Type II diabetes. Current research is reporting a rising number of children developing Type II diabetes due to a diet of fast food and obesity. Also, Type II diabetes is most prevalent in African Americans, Hispanics, American Indians, and Native Hawaiians. In fact, the highest rate of diabetes in the world occurs among the members of Arizona's Pima Indians.

Symptoms of Type II diabetes may appear gradually over time. A Type II diabetic may feel increasingly tired and ill much of the time, may notice an increased thirst and an increased frequency of urination, may experience blurred vision, may notice a slow healing of wounds, may experience a sudden weight loss, and develop sexual dysfunctions. Individuals with a family history of diabetes are at an increased risk of developing diabetes. In my case, the symptoms appeared suddenly and with ferocious intensity. It is not uncommon to find that some Type II diabetics have had a gradual increase of symptoms over a period of time of up to 7 years before diagnosis!

The Risks to Your Eyesight

Uncontrolled blood sugar levels carry an increased risk of stroke, heart attack, and amputation of limbs as well as an increased risk of kidney disease, nerve damage, skin diseases, and eye ailments. Of these, the risk of blindness most directly affects our performance as visual artists. Diabetes is the leading cause of blindness among people under the age of 65 in the United States.

Glaucoma - Diabetes sufferers are 40% more likely to develop glaucoma than the general population. Glaucoma causes an increased pressure of the fluid in the eye. This increased pressure can constrict blood vessels in the retina and the optic nerve. If left untreated, glaucoma leads to blindness by starving the retina and optic nerve.

Cataracts - Cataracts are the thickening of the lens in the eyes. Cataracts become cloudy and block light from reaching the retina. Diabetes sufferers are 60% more likely to develop cataracts and are at greater risk of developing cataracts at an earlier age. Once a cataract begins developing in the lens, diabetic sufferers are prone to an increased rate of cataract development.

Nonproliferative Retinopathy - If the capillaries of the retina are damaged by high levels of blood glucose, the capillaries can balloon and interfere with the passage of substances between the retina and capillaries. This is the mildest form of retinopathy and is generally left untreated. However, if blood glucose levels are left unchecked, nonproliferative retinopathy may cause a swelling in the center of the retina and result in a loss of vision.

Proliferative Retinopathy - Nonproliferative retinopathy may develop into a more serious disease, proliferative retinopathy, if blood glucose levels are left unchecked for a long period of time. As capillaries in the retina are damaged or closed off, new capillary growth may occur. The new capillaries are weak and can leak blood into the fluid of the inner eye causing blindness. Scar tissue may also be created which can distort the shape of the retina.

It is quite often that retinopathies can go undiagnosed until it is too late. There are very few symptoms, however, the longer you have diabetes the more likely you are to develop one or the other form of retinopathy.

The Cure

THERE IS NO CURE FOR DIABETES. It is simply not enough to bring blood glucose levels into normal ranges. Blood glucose levels **must** be maintained at normal ranges. Many diabetics are able to control their blood glucose levels through changes in diet combined with increased exercise. Others, such as myself, must control the blood glucose levels through changes of diet and the use of oral medications. Daily monitoring of the blood glucose level is imperative. Home test kits make this safe and effective. Most Type II diabetics will start treatment with oral medications. Glucovance is one of the newer oral diabetes drugs that combine

previously effective oral medications into a single pill. In just a couple of weeks, taking Glucovance is helping me maintain normal levels of blood glucose. Eventually, depending on how long a person has suffered from diabetes, many diabetes sufferers will need to take daily injections of insulin.

Please! I implore you! If you are aged 40 years or older, are mildly to grossly obese, lack exercise, and lead a sedentary life style, have your blood glucose levels checked annually. If you are experiencing any of the symptoms listed above, regardless of your age or apparent health, have your blood glucose levels checked immediately. Have your eyes examined by an ophthalmologist annually. An optometrist can check the condition of your eyes but only an ophthalmologist can treat diseases of the eyes. Diabetes is not a disease to be taken lightly!

In hindsight, my own history should have been a warning sign of impending Type II diabetes. My mother's father contracted diabetes when he was in his 40's. My grandfather suffered terribly from cataracts and lost his lower right leg to gangrene. A serious lower back injury I suffered in 1997 resulted in 3 surgeries over 5 years. Since then I have had a limited ability to perform strenuous exercise. I lived on a diet of fast foods and prepared foods, purchased from the grocery store, for the last few months. As a result I am 30 pounds overweight. Other health conditions have contributed to a sedentary life style. In short, I was a perfect candidate to develop Type II diabetes. Hindsight, always 20/20, may have caused me "blindsight".

My Visual Prognosis

The ophthalmologist entered the examination room and I prepared myself for the worst news. Grinning broadly my ophthalmologist proclaimed that I had "dodged the proverbial bullet". My diabetes has been caught in time before any permanent damage was done to my eyes. I have the very beginnings of a cataract in my right eye but it should not become a problem for another 3 to 5 years as long as I maintain normal blood glucose levels. Although my eyesight has improved 4 fold, these effects may be temporary. As I gain better control of my blood glucose levels my eyesight will probably return to its former lack of acuity. That's OK with me. I got to drive my truck without my glasses!

Author's note - To learn more about Type II diabetes, please visit the web site of the American Diabetes Association, www.diabetes.org. Another fine resource of diabetes information may found at Web MD, www.webmd.com.

Editor's Note - Visit Tom's online resource of photographic information at www.reasonableexpectations.com.

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