

# Transcript of a chat session with Dr. Steve Goldberg 2/8/98

*(Edited for clarity and length.)*

DAN: All right, let's begin. You have all seen Dr. Goldberg's posts on the list, and his background information was e-mailed to you earlier. So, without further adieu, I am pleased to welcome Dr. Steven Goldberg.

DR. GOLDBERG: Thank you, Dan.

DAN: Good morning, Steve. Thank you for being our guest.

DR. GOLDBERG: My pleasure. I am looking forward to this discussion.

DAN: I know that one of your children has a birthday party in a few hours, so we appreciate the time you are giving us. before we open the floor for discussion, please tell us about your work as a low-vision specialist.

DR. GOLDBERG: My primary practice is as a nursing-home eye doctor. That is pretty much the entire focus of my practice, so I see a great deal of eye pathology, especially macular degeneration. That is what got me interested in low vision treatment.

DAN: We will now open the floor for questions and discussion. Who would like to begin?

BARBARA: Daddy could not come but wants to know what he could use to help him see to do his woodwork.

DR. GOLDBERG: Barbara, fortunately, with macular degeneration, the area we can best assist is with near work. Does he currently use any low vision devices at all?

BARBARA: No.

DR. GOLDBERG: I will offer a couple of thoughts, but first I want everyone to understand that I cannot offer specific medical advice - always be sure to consult with your own doctor. However, that being said, there are what are called "spectacle binoculars" that can roughly double the size of what you are looking at, and there are basic magnifiers that tie with a string around your neck and lean against your chest to allow hands-free work.

ANNE: Dr I would like to know about sub mac surgery.

DR. GOLDBERG: Hi Anne ... submacular surgery is a specialty that may be useful for some forms of retinal damage.

ANNE: What does it involve and what stage do you normally get it done?

DR. GOLDBERG: Before submacular surgery can be performed, it is necessary to identify what kind of damage is present. If there is leakage into the central part of the macula, for example, most doctors will be very hesitant to undertake any kind of surgery. However, if the damage is outside of the most sensitive area, it may be possible. But the surgery is very delicate and a bit risky, so it is not done very often.

ANNE: What is the bubble they were mentioning? I understand there are complications.

DR. GOLDBERG: I would mention that you will need to speak to your eye surgeon and he can lay out the various choices for your specific situation. A gas bubble is sometimes used to try to repair a macular hole.

RUTH: What can people with mild, dry md do to help keep it from getting worse? Eye exercises? Nutrition, herbs? Anything help?

DR. GOLDBERG: Hi Ruth ... there is not a great deal we know about how to treat dry md, but there are a couple of things to consider. First, smoking has been associated with md (besides lung cancer and other concerns), so I would certainly avoid that. In addition, some people are of the opinion that multi-vitamins containing zinc and anti-oxidants such as vitamins C and E and beta-carotene may help; but there is no hard-and-fast research supporting this. Fortunately, dry md usually progresses rather slowly.

DONNA: How often does DRY turn into WET?

DR. GOLDBERG: That's a good question and I'm not sure I have the answer. I tend to think that they are two different forms of md. In addition, it is estimated that only about 10% of macular degeneration cases are of the "wet" variety. Also, for anyone who may not be familiar with the terms, "dry" md refers to the appearance of multiple drusen ("hard" deposits in the retina), and "wet" refers to leakage from vessels in the retina. The "wet" kind usually causes visual deterioration a bit quicker.

MARIE: Would I expect the damage from "wet" incurred 12 years ago to remain stable. I have not noticed any change in that time.

DR. GOLDBERG: Hi Marie ... if the condition has remained stable for 12 years, that is a good sign. We can never say for sure that no further damage will occur, but

that long of a time without change should be viewed as encouraging. Also, I want to make sure that everyone is aware that with macular degeneration the vision can in some cases get quite blurred (but definitely not always), but macular degeneration by itself DOES NOT lead to total blindness.

GARY: Drusens.....can they be removed...and if so...would that be an advantage? Can floaters be removed also?

DR. GOLDBERG: Drusen (actually the term is a plural word, referring to multiple appearances) ...drusen cannot easily be removed. There are forms of retinal surgery where a thin layer of tissue is removed, but this is not done with drusen, which are a bit more buried. Regarding floaters ... there is also no easy way to remove these, although in some cases they will be absorbed into the eye. It is possible to remove floaters by a procedure known as vitrectomy, where the gel at the back of the eye is removed, but the risks with this surgery usually outweigh the potential benefits. The bottom line ... with drusen and floaters, they are best left alone.

DAN: steve, what is the most common type of MD which you see in your practice?

DR. GOLDBERG: By far, the most common type is dry age-related macular degeneration.

ANNE: please excuse my ignorance, but when you have surgery, do they remove the eye from the socket and I imagine you can still see everything.

DR. GOLDBERG: Hi Anne ... I always tell people not to be embarrassed to ask any question. With eye surgery, the eye is not removed. Actually, there are half a dozen muscles holding it in place, so the eye pretty much stays where it is. But the eye can be turned a fair amount to reach wherever the surgeon needs to reach. I have seen an interesting case where I was examining a patient with heavy eyelids. When I pushed the eyelids open to get a better look at the eye as a whole, the entire eye started moving forward toward me. It can't "come out", but there are times the eye can move a fair amount.

MARIE: What aids/devices are most useful to your patients?

DR. GOLDBERG: Hi Marie ... the answer really depends on each individual case, but I will give you some general guidelines I follow. For mild visual problems, I will suggest a standard or illuminated magnifier (these have built-in lights which can help quite a bit). I'm not talking about the magnifiers you might find at a local drug store, however. These are generally the weaker models, although, if they work, by all means use them. When these magnifiers are no longer sufficient, I may recommend the electronic magnifiers (the closed-circuit TV systems). The price of these has been

coming down a bit and the quality appears to be improving. In addition, there are an assortment of talking devices, such as clocks, calculators, thermometers, weight scales, etc. that can make life easier; and of course there are an assortment of large-print items, from books to magazines to playing cards and other games. In severe cases of very limited vision, I may suggest talking books, which can be obtained free from virtually anywhere. And as Donna and others can tell you, much can be done with computer software to make Internet access easier. One other thing there are text-to-speech synthesizers that can allow a person access to normal print books and magazines by having the computer read these materials after they are scanned.

GARY: Steve...would you encourage the use of zinc and perhaps the use of herbs such as bilberry...or do you see any potential harm in their use...I use both (just in case they help).

DR. GOLDBERG: As mentioned, some research has seemed to indicate that zinc and some herbs may be of some help ...not to reverse md, but perhaps to slow it down. However, very important: excessive use of these items (particularly zinc) can be harmful, so your physician should be consulted. In general, however, if used with normal dosing, these should not do harm and perhaps can help a bit. I don't often prescribe these nutritional supplements, but if a patient asks, I tell them from my standpoint it's ok to take them, just don't overdose.

MARIE: Do you have anything to help thread sewing machine needles?

DR. GOLDBERG: there are a couple of possibilities ...one is the magnifying lens that hangs by your neck and rests on the chest... another possibility is a large stand magnifier that allows some room underneath to thread a needle. One other option ... the electronic magnifiers can be wonderful for this.

RUTH: Steve, I took bilberry for awhile but discontinued it. Where may I find it and in what form?

DR. GOLDBERG: Ruth, I would speak to your pharmacist or perhaps a local "health foods" store such as General Nutrition Centers or the like.

DONNA: Could you explain more about Closed Circuit TV?

DR. GOLDBERG: There are a variety of forms of closed circuit TV systems ... these generally fall into two categories ... the smaller portable, hand-held devices such as MagniCam, MousCam, Max (not available yet in most places), and a few others. These are helpful for short-term BIG magnification (i.e. looking at medicine bottles, mail, short magazine or newspaper articles). They generally retail for anywhere from about \$300 to \$1800. The larger, desktop models, such as the

Optelec systems, Telesensory, and the like provide much greater magnification (up to around 60X) for cases of more advanced vision loss. These generally run from about \$2000 to \$4000 but can make the difference between being independent and having to rely on others to review mail. Both the hand-held and the desktop systems work by having a miniature video camera mounted on some device that looks down on whatever it is you want to see, then the image is projected onto a standard TV set or a video monitor. These are great devices, although the expense is such that I generally don't advise them if the normal magnifiers do the job.

BARBARA: Wanted to ask about pycnogenol and grape seed extract. I take them both and think they have improved my case.

DR. GOLDBERG: Barb, I am not familiar with these, but for more information, I would advise looking at Dan's website. I believe that if you check the links there (especially Brian's Eye Story) you will find some nutritional sites that may be of help. But again, whether you're talking about bilberry, zinc, or other supplements, (including pycnogenol and grape seed) I would speak to your general physician to verify dosages and to make sure that you are not overdosing. Whether or not these help slow down the progression of macular degeneration I am frankly a bit suspect. Nevertheless, if in your specific case you feel that you have had some improvement, it may be that they are of benefit. Just watch out for overdosing.

DONNA: Don't understand how making things bigger helps? Doesn't magnification also...magnify the blur spots and floaters?

DR. GOLDBERG: Hi Donna ... I am amazed at times how much magnification can help. There have been numerous patients I have had who cannot see the big "E" on my chart, yet with significant magnification they are sometimes able to make out print barely larger than normal newspaper print. This generally works best in the early stages of MD, when there is still a fair amount of healthy retina remaining in the central area (the macula). The idea is to magnify around the damaged area so the desired image falls onto healthy retina. The blind spot(s) and floaters are not magnified ... only the material you're looking at. In severe, advanced cases, this may no longer help.

ANNE: Will they ever be able to do eye transplants, I offered mine to my fiancée but they aren't doing it yet??

DR. GOLDBERG: Eye transplants are a long way off. The problem is that the retina at the back of the eye is actually an extension of the brain itself and if an eye is removed, all of the nerve connections between the eye and the brain go with it. We don't have the technology yet to be able to reconnect the many thousands of nerve fibers that would need to be done. However, an interesting bit of research

going on now involves transplantation of certain retinal cells. These appear to be able to be implanted into an eye, but rejection by the host is the problem. Another very theoretical area of research involves implanting computer technology into an eye or perhaps attaching to the visual cortex itself, at the back of the head, to produce visual images. These technologies, if they ever come to fruition at all appear to be many years away. But be assured, there is much work in many different areas here.

MARIE: Can you recommend a source for hand held magnifiers 4X and stronger with large field (at least 2 1/2 inches).

DR. GOLDBERG: My office carries up to 6x hand-held magnifiers with a reasonably large field of view and you might also check the various links through Dan's site; but be aware that the larger the magnification, the smaller the field of view. In general, I advice the weakest magnifier that will do the job. Also, with the higher-powered magnifiers, you might consider the illuminated versions; otherwise sometimes you have a rather dark image to see.

BARBARA: I wanted to ask doctor if he knows anything about Duke University, as it has been suggested to my bro to take daddy there.

DR. GOLDBERG: I am not familiar with anyone in particular there but they have an outstanding reputation as a research university and if they have a low vision clinic that has come recommended, I would not hesitate to try it.

DONNA: I take the ICAPS PLUS that doc gave. Can I also take herbs without overdose?

DR. GOLDBERG: The ICAPS PLUS with moderate use of herbs is most likely not a problem, but as always. I must issue my disclaimer to check with your general physician to be sure.

DONNA: Is there anywhere that helps financially to buy some of the expensive aids?

DR. GOLDBERG: if a person is legally blind, there is usually a tax credit from the federal and perhaps state government to look into. And in addition, sometimes state or local agencies can be of some help. You might check with your state department of aging or social services department. If you have trouble, call my office at (888) 683-9600 and we'll see if we can point you in the right direction.

DONNA: Can I draw Social Security early because of eyes?

DR. GOLDBERG: Regarding social security, I'm not sure of their guidelines, but I have filled out many forms for my patients who have made application to various agencies to claim a disability due to reduced vision. I'm not aware, however, with social security if they provide for this.

DAN: I want to thank Steve for his time this morning, and now let him go get ready for his son's birthday party.

DR. GOLDBERG: It's been my great pleasure, everyone.

DAN: Thank you, all, for coming!