# Ask Expert

# Diabetes and the Eyes

Why does my primary doctor ask about my eye exams for diabetes?

Diabetes is a disease that damages many parts of the body. The eye is no exception, and like many other types of diabetic harm, what goes on in the eye can be subtle and without symptoms. The primary target for diabetic damage in the eye is the retina. This is the inner lining of the back of the eye. It functions as the film in the camera of the eye, so to speak. A dilated eye exam is absolutely necessary to fully evaluate for problems.

# How can diabetes damage the eye?

The retinal blood vessels in the back of the eye can be weakened. This can cause leakage of fluid and even bleeding, called diabetic retinopathy. Over time this leads to the light-sensing cells of the retina losing blood flow and then losing function. You may lose your peripheral vision, and this may be permanent. Your central vision could become distorted and not correctable

with glasses. In the worst of cases, new tiny blood vessels can try to grow into the retina in back of the eye, causing bleeding and retinal detachments.

It is also possible to suffer severe, acute glaucoma—increased pressure within the eye—which is a painful and dangerous condition. These problems would require surgery in order to have hope of saving or improving vision.

## What would I see if there is diabetic damage?

Initially, you wouldn't see any change, and this is what makes diabetes so dangerous. Early changes of diabetic retinopathy are easily detectable and treatable before you lose any sight. If you are diabetic and are noticing that straight objects appear curved or that there are missing areas of your vision, you need an exam quickly to preserve your sight.

# What treatments are available for diabetic eye disease?

The standard treatment is laser therapy. This procedure is performed in the office and doesn't require sedation or anesthetic beyond eye drops. Very fine laser beams can treat spots that may be leaking

fluid inside the eye. There is also the possibility of more general laser treatment in the eye which would decrease the damage due to poor blood flow to the retina.

In addition, eye drops and injections of certain medications can significantly help some aspects of diabetic retinopathy. The last line of therapy is a procedure in the operating room done by a retinal specialist who would perform treatments within the eye itself. This is usually avoidable if diabetic retinal changes are caught early.

### Can diabetes have other effects on the eye?

Absolutely. If your blood glucose (or sugar) is varying greatly, this can actually change your needed glasses correction from day-to-day. This means that one day, your glasses may work for you just fine, and the next you may not be able to see anything clearly.

Poorly controlled diabetes can also worsen clouding of the natural lens inside the eye, which is what is called a cataract. Diabetes can sometimes cause the need for early cataract surgery to clear your vision.

#### What's the eye exam like?

After your vision and eye pressure are tested, drops

are administered to dilate your eye. This means the pupil gets much larger. Once the drops take effect, a microscope and various lenses are used to examine the back of your eye under high magnification. The drops are necessary to allow an exam of the entire retina. An undilated exam only allows a view of about 10-20% of the whole.

Your vision will likely be somewhat bright and blurry for a few hours afterward until the drops wear off, but it's a small price to pay for the peace of mind that comes with knowing your eyes are not suffering diabetic damage.

### What else can I do to help my eyes stay healthy?

Diabetes is a tough, tiring condition. It takes work on everyone's part, especially you, but it is absolutely treatable and controllable. Work closely with your doctor to control your blood sugar at the appropriate levels. That is surely the best thing you can do for your eye health. You should supplement that with annual dilated eye exams by your eye doctor to screen for any diabetic changes. Every patient, every year is the recommendation, because early diagnosis means better vision later.

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