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Our Eyes Matter:

Diabetes-related macular edema (DME)

What is DME?

Diabetes is the leading cause of new blindness in the United States, with DME contributing greatly to this vision loss.

DME may affect up to 10% of people with diabetes. DME is a complication of diabetes caused by fluid accumulation in the macula that can affect the fovea. The macula is the central portion in the retina which is in the back of the eye and where vision is the sharpest. Vision loss from DME can progress over a period of months and make it impossible to focus clearly.



Photo credit: National Eye Institute

What causes DME?

DME is an eye condition which can occur in people living with diabetes – both type 1 and type 2. Consistently high blood sugar due to poor glucose control over time can damage small blood vessels in the body, including the eye. Diabetes-related retinopathy is a disease that damages the blood vessels in the retina, resulting in vision impairment. Left untreated, fluid can leak into the center of the macula, called the fovea, the part of the eye where sharp, straight-ahead vision occurs. The fluid makes the

macula swell, blurring vision. This condition is called DME. It can occur at any stage of diabetes-related retinopathy, although it is more likely to occur as the disease progresses.

What are the symptoms of DME?

People who have diabetes are at risk of developing DME over time. A person with diabetes should have their vision checked yearly, or as directed by their eye doctor. Vision changes due to DME are:

- . Blurred vision
- . Double vision
- . Sudden increase in eye floaters

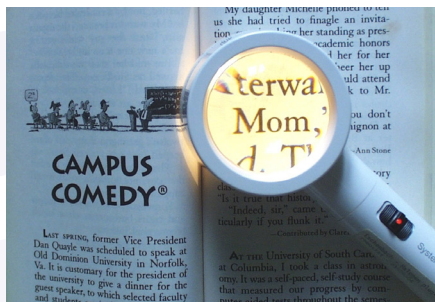
How is DME treated?

As with all complications of diabetes, successful management of macular edema requires good control of the diabetes itself. Each of these treatments has their own benefits and risks. Consultation

Our Eyes Matter: Diabetes-related Macular Edema (DME) (continued)



Photo credit: National Eye Institute



Courtesy of the American Academy of Ophthalmology

and discussion with the eye doctor is needed to determine the best treatment for an individual's situation.

- **Anti-vascular endothelial growth factor (anti-VEGF) drugs and bispecific monoclonal antibody drugs:** These drugs block the development of new blood vessels and limit the leakage from the abnormal blood vessels in the eye. They are delivered through an injection into the eye, administered by an ophthalmologist, usually a retinal specialist. While some pressure will be felt during the injection, the eye is first numbed to minimize any discomfort. Several injections over time are needed in this treatment (frequency of injections varied based on the drug selected and the eye doctor's judgment).

- **Focal Laser:** Laser light is used to close and destroy leaking blood vessels. This form of laser therapy does not typically cause pain. The treatment may leave permanent blind spots in a person's vision. But it also helps to slow or stop the growth of new blood vessels that could damage vision even more. It helps protect the vision that remains and may slightly improve vision.

- **Corticosteroids:** This treatment involves an injection of steroids into the eye or an injectable steroid eye implant to release the drug over time to decrease DME and improve vision.

Living with Low Vision

If you or someone you know has lost some sight to DME, low vision aids can help you stay independent. Special training, called vision rehabilitation, can provide skills for living with low vision. A low vision specialist will help determine the right combination of aids for your needs. Ask your eye doctor about the possibility of seeing a low vision specialist.

Low vision aids include:

- Magnifying glasses, screens and stands
- Telescopic lenses
- High-intensity reading lamps
- Large-print newspapers, magazines and books
- Close-circuit TVs that magnify a printed page on screen
- Computers and tablets

Living Well with Low Vision

- Living Well with Low Vision is an online resource to educate those with loss of vision on how maintain their independence and quality of life. Learn more at lowvision.preventblindness.org.