Diabetic Retinopathy

Diabetes is the leading cause of new cases of blindness in adults. This is a growing problem as the number of people living with diabetes increases, so does the number of people with impaired vision.

Diabetes can cause a disease of the eye called diabetic retinopathy (DR). In its early stages, you may not notice any symptoms or changes to your eyesight, and you cannot tell that this condition is damaging your eyes. If it is not detected and treated in a timely manner, your vision can be damaged permanently.

A recent study, conducted at CDC, found that the prevalence of diabetic retinopathy was high, affecting almost one-third of adults over age 40 years with diabetes, and more than one-third of African-Americans and Mexican-Americans.

- 4.2 million adults had DR and 655,000 had vision-threatening DR.

The more severe, vision-threatening form of the disease was more than twice as common in Mexican Americans, and almost three times as common in African-Americans, than in the white population.

- Male sex, higher A1c level, longer duration of diabetes, insulin use, and higher systolic blood pressure were independently associated with the presence of DR.

Diabetes-related blindness costs the nation about $500 million annually. Prevention is important. Vision problems and blindness caused by Diabetic Retinopathy may be prevented through:

1. Good control of blood sugar and blood pressure levels, and
2. Early detection and treatment of eye diseases

The study used a cross-sectional, nationally representative sample of 1006 adults aged 40 years and older who had been diagnosed with diabetes. Subgroups included non-Hispanic whites, non-Hispanic blacks, and Mexican-Americans. It was conducted as part of the National Health and Nutrition Examination Survey from 2005 to 2008. The full report can be found in The Journal of the American Medical Association.
Additional highlights:

- Investigating the prevalence of DR is important because it is a key indicator of systemic diabetic microvascular complications, and as such, a sentinel indicator of the impact of diabetes.
- Despite the documented increase in the prevalence of diabetes among the American population, national population-based data on the prevalence and severity of DR remain scarce.
- Improved access to screening for and treatment of DR may reduce the burden of diabetes-related vision loss.
- These findings lend further insight to inform national efforts to reduce disparities among racial/ethnic and socioeconomic groups and preserve sight for all adults in the U.S.

For more information on diabetes prevention and control, visit [www.cdc.gov/diabetes](http://www.cdc.gov/diabetes)