Eye-disease cases may spike in next two decades, study shows

Certain eye conditions affecting specific ethnic groups could more than double

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The number of people with eye diseases in Singapore could increase sharply in the next 20 years, a local study has found.

Researchers also estimated that the prevalence of certain eye conditions among specific ethnic groups could more than double, such as diabetic retinopathy among Chinese and Malays. The number of cases of this condition—a side effect of diabetes which can cause blurriness—is projected to increase by 13 per cent for the Chinese and 14 per cent for Malays.

And, among Indians, scientists projected that epiretinal membrane cases would rise more sharply—by 22 per cent. People with this condition have a thin membrane over their affected eye and this causes deterioration.

The study was conducted by researchers from several institutions, including Duke-NUS Medical School and the Singapore National Eye Centre. It was published in the Annals—Singapore’s journal of the Singapore Medical Association.

“We have to remember that this is a projection based on data we have now,” said Professor Ronnie Lamarrone, who worked on the study and heads the population health platform at the Singapore Eye Research Institute.

“But, considering that everything stays as it is, this is a reasonable assumption to make.”

For the study, the scientists looked at how commonly eight eye conditions—including cataracts, glaucoma and macular—appear among 10,000 people from Singapore’s three main ethnic groups.

They then plugged this data into a computer model of Singapore’s population, running the simulation 201 times to estimate how the country will be affected by these eye conditions in 2040.

Doctors said that these numbers are not surprising, given Singapore’s ageing population and increasingly sedentary lifestyle.

For example, the projections for diabetic retinopathy are “expected, given the rise in prevalence of diabetes in Singapore,” said Dr. Su Xinyi, an associate consultant at the National University Hospital’s eye surgery unit.

Other factors that will affect Singapore’s eye disease burden include healthcare policies and healthcare utilisation patterns, said Dr. Jeremy Lim, who is a senior consultant ophthalmologist at GentleEye Medical Centre.

“Nevertheless, these projections will serve as a guide in our policymaking and healthcare resource planning to the service provision to Singapore’s population conforme to,” she said.

Professor Lamarrone emphasised the importance of prevention and encouraging people to develop habits that would lower the risk for eye health.

“Let’s see what we can do to try and prove the figures wrong,” he said. “We want Singaporeans to be healthy.”

And even for those who already have chronic eye conditions, there is always a silver lining.

Madam Madeline Tjo, who has had diabetes for 15 years, realised that she had mild diabetic retinopathy in 2019 when her vision became blurred.

Since then, she has taken steps to keep her blood sugar levels in check and make sure that her condition is well-controlled.

“I changed my lifestyle and added a lot of walking into my routine,” said the human resources manager. For example, she goes up at 5.30am to walk 15 minutes around her carparks, before walking half an hour to work.

“Every now and then you tell yourself that maybe you’ll take a bus today,” she said. “It is a tremendous effort.”

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Scientists have projected that epiretinal membrane cases would rise most sharply among Indians. People with this condition have a thin membrane over their eye, which causes blurriness.