

# Americans face an epidemic of nearsightedness

There is an epidemic of nearsightedness (myopia) among young people in the United States, as well as globally. The old wives tales that too much close-up reading in bad light will damage your eyes and the answer to children's problems is to "go outside and play" now seem closer to the truth, according to suggested remedies.

Numerous medical studies have been completed in the past decade to sort through the mysterious increase in nearsightedness from childhood age. Since 1971, nearsightedness has nearly doubled in the United States, to 42 percent, according to the American Academy of Ophthalmology (AAO).

"Some studies project that 50 percent of Americans will be nearsighted by 2030," said ophthalmologist Rainna Bahadur, M.D., a partner at Eye Associates of the South who has noticed the trend in her own patients through the years. "The increased rate is even higher in Asia," she added.

Eye Associates of the South has clinics with optical shops in Biloxi, Ocean Springs and Gulfport.

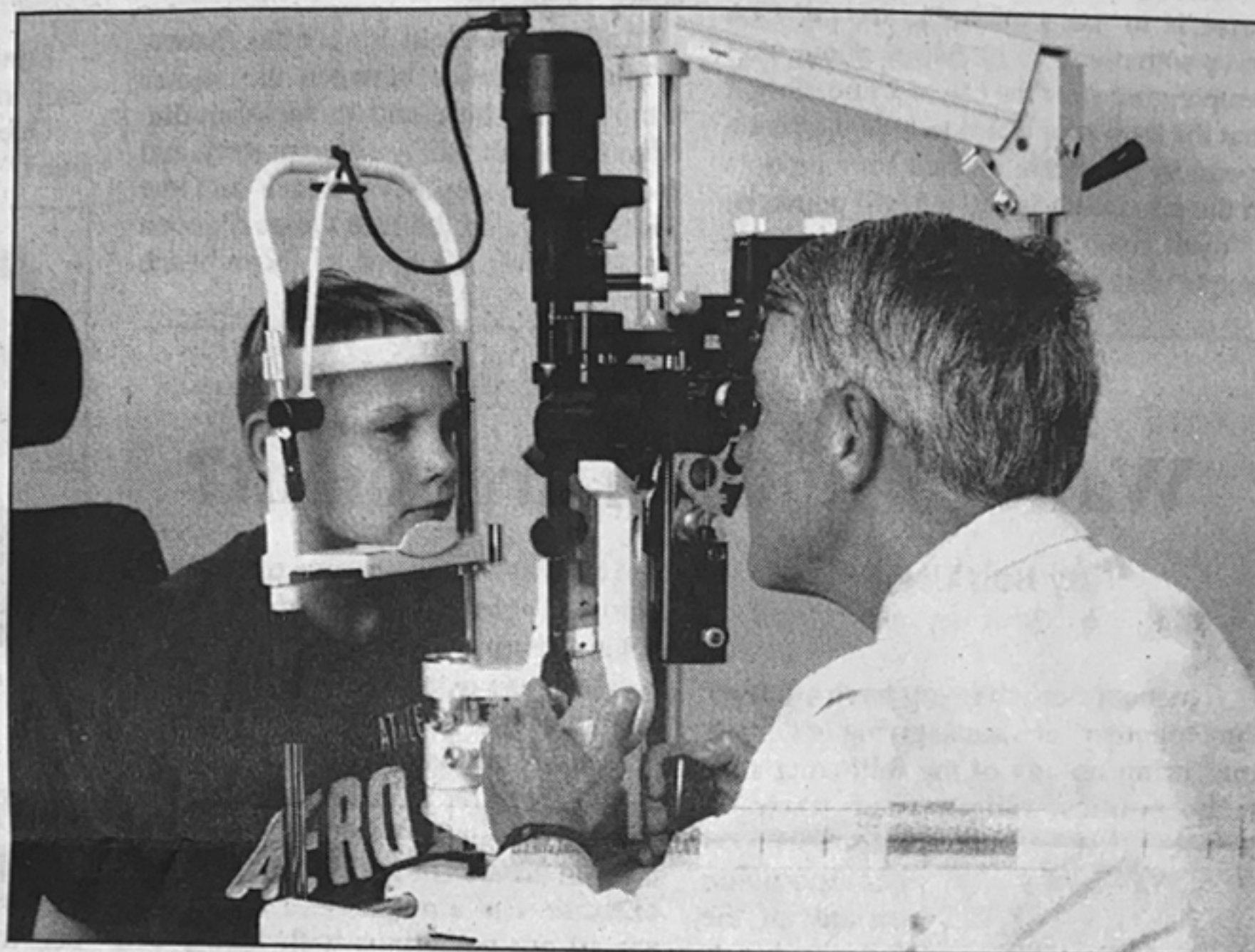
To date, the best advice for parents are to limit children's time on computers, especially on smart phones' small screens, and to make sure their daily routine includes at least 45 minutes outdoors so their eyes experience distance vision and are exposed to normal sunlight. (Harmful ultraviolet (UV) rays from the sun are not a factor in myopia, studies indicate, so sunglasses still are recommended.)

People with myopia can see nearby objects, but objects farther away are blurry. It typically is corrected with eyeglasses or contact lenses, explained optometrist Kimberly Benigno, O.D., of Eye Associates of the South. Myopia occurs if the axial length of the eyeball (front to back) is too long or the cornea (clear cover on the front of the eye) is too arched, so light entering the eye does not line up to focus correctly, she explained.

Nearsightedness usually develops in school-age children. Such causes as genetics do not explain the increased incidences, studies say.

The most established lifestyle factors for myopia are high education, lack of outdoor exposure and excessive near work, said Eye Associates of the South pediatric ophthalmologist H. Sprague Eustis, M.D., citing AAO pediatric ophthalmology data.

Data analyzed from the AAO's IRIS Registry assessed myopia among more than 600,000 eye patients under aged 36, which



Pediatric ophthalmologist H. Sprague Eustis, M.D., examines a patient at Eye Associates of the South in Biloxi.

showed risk factors associated with myopia progression include: refractive error (nearsightedness) present at an early age, living in the eastern United States, living in high-income areas and being Hispanic in the United States (or Asian, globally).

Other studies with smaller cohorts but which gathered more general personal data found increasing myopia also seems related to high intelligence (high IQ), living in urban areas, being middle or high income, and having a diet with higher saturated fat and cholesterol (correlated with eyes' longer axial lengths).

Chronic or intense close-up work, not computers themselves, seems to be a key. The epidemic predates widespread use of computers, smart phones and handheld video games. In Asia, young adults already were highly myopic by the 1990s, according to an AAO article on "Myopia Research."

The ability of the eye's lens to focus from far to near is called accommodation. A common analogy is that accommodation by eye muscles to focus close up slightly changes the eye's shape and the elongation of the axial length, thus gradually making the myopic eye shaped somewhat like a football instead of a

normal basketball. Being outdoors and seeing a larger depth of field or varied distances demands less accommodation from eye muscles, Bahadur explained.

Some myopia researchers are calling for preventive measures since the optical inconvenience of nearsightedness has developed into a crisis, the AAO article notes. This is particularly important for highly myopic patients, who tend to get more serious eye problems late in life, including some causing blindness.

To inhibit accommodation and, thus, the progression of myopia, eye doctors may prescribe atropine or pirenzepine eye drops. Some myopic patients wear rigid contact lenses overnight to temporarily change the eye's shape, but it is controversial measure since sleeping in contacts may cause infections and corneal scarring. (In general, sleeping in contacts is not recommended.) After teenage years, laser refractive surgeries including LASIK can re-shape the cornea to correct the shape of the eye and restore perfect or near-perfect vision, said Bahadur, a cornea and LASIK specialist.

For an appointment, call Eye Associates of the South at (228) 396-5185 or visit their website at [www.2020view.com](http://www.2020view.com).