

Editor's perspective

Paul B. Freeman, O.D.

As members of the primary healthcare team, part of our responsibility is to involve ourselves with public healthcare issues, especially those that can directly affect our patients' well-being. Optometrists are well aware of how systemic conditions can affect the eyes and visual system as well as the overall health of the individual. So, in keeping with the charge given to us by AOA President, Dr. Pat Cummings, concerning caring for the young, we must join ranks with the healthcare community to address a new epidemic with potentially dire consequences for the overall health and visual well-being of this population—namely, childhood obesity. An editorial in the March 2002 issue of the *New England Journal of Medicine*¹ cited an article on the increased incidence of overweight children and diabetes. The editorial stated: "in 1983, 18.6% of preschool children in the United States were defined as 'overweight' and 8.5% were defined as 'obese'; by 2000, 22% of preschool children were 'overweight' and 10% were 'obese.'" The current public health concern is: how does this relate to the long-term health of an overweight or obese youngster?

We used to make a distinction between juvenile and adult-onset diabetes: the inability of the pancreas to produce insulin (requiring insulin injections) was considered *juvenile* diabetes, while the inability to use insulin effectively in the body (requiring oral medication) was

considered *adult-onset* diabetes. However, along with the increase in childhood obesity there is now a related increase in the diabetes formerly characterized as adult-onset diabetes—now considered type 2 diabetes. In one 12-year study (1982 to 1994), the increased incidence of diabetes in adolescents (by a factor of 10) was comparable to the frequency of pediatric obesity.² In a summary³ of current research reported in *Diabetes Forecast*, a study performed at the University of Manitoba in Winnipeg found that among 53 adults (between ages 18 and 33 years of age and in whom type 2 diabetes had developed when they were children) the following complications were exhibited:

- three were receiving kidney dialysis;
- one was blind at age 26;
- one had had a toe amputated;
- 6% had undergone laser eye therapy;
- 35% were diagnosed with microalbuminuria; and
- 45% were taking blood pressure medication.

While the sampling of this study is admittedly small, such information should alert us to the scope of concerns regarding the sinister health consequences to which overweight and obese children are often predisposed.

So what can we do?

First and foremost, as part of the primary healthcare team, we should communicate our concerns about any

Children at risk



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child we feel is at risk for weight-related problems—not only alerting the parents, but the pediatrician or family physician as well. And, as we do with adults with conditions that might be affected by nutrition (such as age-related macular degeneration), we should speak with young children and their families about proper eating habits related to risk factors of weight and systemic diseases (it may also make sense to recommend nutritional counseling). Also, statements which encourage physical activity as a method of "burning energy" to keep weight down should become part of our summary statements at the conclusion of an examination.

The Centers for Disease Control, in their *Youth Risk Behavior Survey*,⁴ found that, in general, young people tend to demonstrate a trend of declining physical activity during their high

school years. And while we don't have to evaluate our patients' BMI (body mass index), a positive conversation about increasing activity falls well within our responsibilities as primary care doctors. This conversation might also include suggestions of limiting time spent on physically passive activities, such as watching television or working/playing on a computer. Researchers have shown that, these days, the young are spending an increasing amount of time on the computer for school-related projects and pleasure. In a personal communication with Dr. James Sheedy, an authority in the area of computers and ergonomics, he related the following statistics regarding children's access to computers:

57% both in school and at home;
23% in school only;
10% at home only; and
10% no access at all.

At some point, I suspect that someone will correlate increased computer or television use—almost all homes have televisions—and the resultant sedentary lifestyle with type 2 diabetes.

For anyone who has seen the ravages of diabetes—and knowing that we have an ever-increasing population of youngsters at risk for this disease—one cannot help but take up this cause passionately in the hopes of eliminating at least one of the apparently significant factors of the epidemic proportions of childhood diabetes. It can break your heart to look into the eyes of a "healthy" diabetic youngster and consult with the family about the necessary vigilance to try to thwart what may lie down the road.

There are some things we cannot control, like the relation-

ship of a family history of diabetes to the increased risk for development of the disease. However, there *are* things we can try to help our patients recognize as controllable variables. Let's seek to minimize the number of times this conversation with parents has to occur by helping eliminate one of the controllable variables that has helped create the increase in the incidence of childhood diabetes.

References

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