

Childhood obesity and type II diabetes

The rate of obesity among children in the US is rising alarmingly, just as it is in adults. This issue is addressed in the July 3rd Newsweek cover story. These days, a long list of popular fad diets would suggest that the cause of obesity is eating too much carbohydrate. The idea behind this is that carbohydrate leads to insulin release, increased insulin leads to insulin resistance, and insulin resistance in turn leads to obesity. This explanation is, for the most part, false. Actually, it is obesity that leads to insulin resistance, and diabetes, rather than the other way around.

Why do kids in this country keep getting heavier? The answer is almost too obvious to be interesting. Kids (and adults) are less and less physically active. Time that used to be spent moving is now spent idle in front of a computer, video game, or TV. While a great convenience for adults and diversion for children, the Internet has further reduced opportunity for, and interest in, physical activity.

Coupled to a declining activity level is a rising calorie intake, although our calorie intake may have peaked. In addition to widely available fast foods and sweets, our society values large portions. In fact, being able to "super size" a fast food meal is seen as a bonus. Actually, it just contributes that much more to the imbalance between calories consumed and calories

burned. More calories eaten, and fewer spent exercising, translates predictably into more body fat.

We are all susceptible to weight gain, to varying degrees, because we are designed to be fuel-efficient. Our ancestors lived in, and adapted to, a world in which hard physical activity was unavoidable and food, particularly calorie-dense food, was in short supply. As a result, they needed to be fuel-efficient to survive. Because our genes have not changed much in about 100,000 years, we still have the survival traits of our ancestors, no matter how badly they fit in the modern world.

Unfortunately, obesity is a potentially serious health threat. With more children becoming overweight, the prevalence of type II diabetes (the type that does not require insulin injections) in children is rising. The consequences of diabetes can be quite severe. The earlier diabetes begins, the earlier in life the complications tend to occur. So the development of more diabetes in children is a serious public health threat. As with almost any threat, the first essential step in successfully addressing this one is understanding it. Young people in this country need to eat a more prudent diet, and be more physically active. To get these things to happen, parents need to set a good example. Physical activity should be family activity. Walking, hiking, team sports, roller-



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blading, gardening; almost any activity that requires sustained movement is helpful in weight control and diabetes prevention. Similarly, family members should support one another in efforts to choose nutritious foods. Eating should be enjoyable, but also reasonable. There is nothing enjoyable about developing obesity and diabetes. Lack of restraint in food choice, or portion size, is dangerous and ill advised. Other responses require concerted community, and even societal action. Facilities for physical activity should be available and safe for all children. Nutritious food should be served in schools, and conveniently available for busy parents. Perhaps most important, the victims of our modern environment should not be blamed for their troubles. We tend to stigmatize obesity, and this is particularly harsh when it occurs in children. The problem of childhood obesity is complex and not a matter of gluttony or laziness. Concerted societal effort, and compassion, are both called for.

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