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**Risk Syndrome Found in Overweight Teens: Early Diabetes,
Heart Disease Likelier**

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Nearly 1 million U.S. teenagers suffer from a syndrome associated with being overweight that makes them unusually prone to diabetes and premature heart disease later in life, researchers reported yesterday.

In the latest indication of a deepening health crisis because of the nation's obesity epidemic, researchers determined that at least 4 percent of American adolescents have developed "metabolic syndrome," a constellation of risk factors for subsequent health problems.

"It's frighteningly common," said Michael Weitzman, director of the American Academy of Pediatrics' Center for Child Health Research, who helped conduct the first-of-its-kind research. "It's very, very disturbing. You're talking about people who haven't even become adults yet who are already on the way to cardiovascular disease."

As the nation's obesity epidemic has accelerated, public health authorities have become increasingly focused on metabolic syndrome, which occurs predominantly among people who are overweight and is perhaps the earliest warning sign of developing health problems.

Previous studies found that 22 percent of U.S. adults have metabolic syndrome, but no one had assessed the prevalence of the disorder in teenagers.

Teens with the syndrome are believed to be at sharply increased risk for developing diabetes by their twenties and heart disease as early as their forties. The syndrome is defined as having at least three of five criteria: being overweight around the abdomen and having high blood pressure, high blood levels of fatty chemicals called triglycerides, low levels of HDL ("good") cholesterol and high blood sugar.

"Metabolic syndrome is extremely concerning because it likely precedes the onset of diabetes, and increases the risk for cardiovascular disease," said Sonia Caprio, a metabolic syndrome expert at Yale University School of Medicine.

"This is a very, very important public health issue. The numbers are telling us these children are at very high risk for serious problems later on, and if we don't change their status, these are going to be people with diabetes in their twenties or thirties and their first heart attack in their forties," Caprio said.

The number of overweight children tripled between 1970 and 2000, reaching 15 percent of those ages 6 to 19. Being overweight increases the risk for a host of health problems, including diabetes, heart disease and cancer. The number of children developing Type 2 or "adult onset" diabetes has already begun to rise.

For the new study, Weitzman and his colleagues analyzed data about 2,430 adolescents ages 12 to 19 collected between 1988 and 1994 for the National Health and Nutrition Examination Survey, a nationally representative ongoing federal survey of U.S. health issues.

The analysis showed that 4.2 percent of adolescents meet the criteria for metabolic syndrome, which translates into 910,000 teens, the researchers reported in the August issue of the Archives of Pediatrics and Adolescent Medicine. The syndrome was found in at least 6.1 percent of males and 2.1 percent of females.

The syndrome is by far most common among those who are overweight. Nearly 30 percent of those who are either overweight or obese have the syndrome, the researchers found.

"That's exactly what's driving it -- the vast majority of kids in this sample who had this are overweight," said Weitzman, a professor of pediatrics at the University of Rochester.

"So when you go to the mall or the airport or the supermarket and you scratch your head because of the increasing number of markedly overweight adolescents you see, almost three out of every 10 is like a ticking time bomb for heart disease" because they have metabolic syndrome, he said.

Scott M. Grundy, director of the Center for Human Nutrition at the University of Southwestern Texas Medical Center in Dallas, said that if anything, the study could be underestimating the rate because the survey used the adult definition of overweight.

Jonathan Klein, chairman of the committee on adolescents for the American Academy of Pediatrics, called the findings "dramatically high -- it's almost one out of every 20 kids. That's at least one child in every kindergarten class," Klein said.

The risk for diabetes and heart disease drops sharply for those who have metabolic syndrome if they lose weight.

"We need to really focus our society and health care resources on more effective prevention strategies," Klein said.