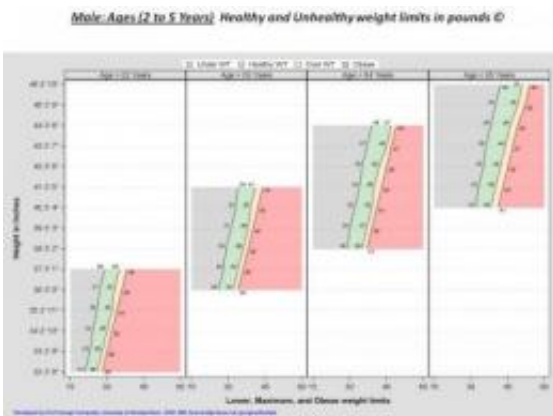


Nevada professor devises new childhood obesity screening tools

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George Fernandez, a University of Nevada, Reno applied statistics professor who thinks the present weight management charts and screening tools for children are too difficult to use, has devised new, simpler charts such as this, that pediatricians and parents can use to help combat the increasing rates of obese and overweight children in the United States. Credit: George Fernandez, University of Nevada, Reno

A University of Nevada, Reno professor who thinks the present weight management charts and screening tools for children are too difficult to understand and use has devised new, simpler charts that pediatricians and parents can use to help combat the increasing rates of obese and overweight children in the United States.

George Fernandez, Nevada professor of applied statistics and director

for the Center for Research Design and Analysis, contends that the current charts are difficult to interpret and often require determination of [Body Mass Index](#), or BMI. Calculating BMI involves a complex formula: weight in pounds is multiplied by 703, and then divided by height in inches squared. Charts are then used to show a healthy weight range, given a child's height, sex and age.

"This is way too complicated for the average person," he said. "Even pediatricians, nurses and health officials often need special training."

In the health profession, [children](#) at or above the 95th percentile in BMI-for-age are classified as "obese." Children in the 85th to 95th percentile in BMI-for-age are classified as "overweight." Children in the fifth percentile or below in BMI-for-age are classified as "underweight."

Using advanced SAS graphical software, Fernandez has computed healthy and unhealthy weight limits that correspond to these BMI-for-age definitions, and made easy-to-read color charts for each gender and different age groups. (See graphic.)

"We need to be able to see weight limits for overweight, obesity and underweight in simple numbers - pounds, on simple-to-read charts," Fernandez said. "I think that pediatricians and parents will be happy to have the computing and work done for them, so that they can just refer to these simplified charts and see where their children fall and know what they need to aim for."

Earlier this year, Fernandez presented similar tools for adults, proposing that everyone should know their "Maximum Weight Limit," and computing charts and simplified calculations to help them achieve this goal. The information was met with much interest, gaining attention worldwide.

"Weight management is an international concern," Fernandez said. "We need to pool our collective wisdom and talents to address it, not just rely on those in nutrition and medicine. The problem is of such magnitude that we need an interdisciplinary approach to solve it."

Recent research reveals that 31.9 percent of U.S. schoolchildren are overweight or obese. According to the CDC, the proportion of [overweight children](#) in the United States ages 12 to 19 has nearly tripled over the past three decades. The rate for children ages 6 to 11 has doubled in that same period.

Source: University of Nevada, Reno

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