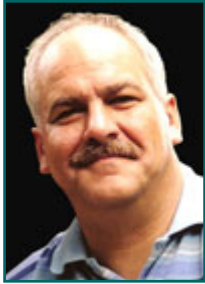




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## Knowing Your BMI Is Important for Your Health

[By Ven Griva]

While it is gaining in popularity among scientists, health professionals and fitness experts, the term “Body Mass Index” remains obscure to many Americans.

One reason might be that finding your BMI requires solving a math problem. To find your BMI, you must know your height and weight and plug them into a formula, which then arrives at a number that can range from the teens to more than 30.

Another reason someone might not want to find his BMI is that the number could reveal that he or she is one of the estimated two-thirds of Americans who are overweight or, worse yet, obese. Yet knowledge is power, and in this case knowing your BMI might be the impetus you need to start down the road toward better health.

To calculate your BMI, you would divide your weight in pounds by your height in inches. You would then divide that result by your height in inches again. Then that result is multiplied by 703.

If you guessed the BMI formula was invented by people who routinely wear lab coats, you would be right. In fact, the BMI concept was proposed by scientists at the National Institutes of Health and The World Health Organization as a method for defining obesity.

If you have access to the Internet, it is unnecessary to do the math yourself. You can find a BMI calculator at the NIH Web site ([www.nhlbisupport.com/bmi/](http://www.nhlbisupport.com/bmi/)).

According to the NIH, your BMI score means the following:

Underweight: below 18.5.

Normal: 18.5 to 24.9.

Overweight: 25 to 29.9.

Obese: 30 and above.

For many reasons, knowing your BMI is important for your health. If your BMI is too high, you are at greater risk than people with a normal BMI to die prematurely from chronic health problems. Examples are high blood pressure, Type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, respiratory problems, and breast, prostate and colon cancer, the NIH says.

The health problems that arise from being overweight are the No. 2 cause of preventable death in the United States, following only smoking.

Knowing your BMI is not just for adults. To combat the rising rate of obesity in children, the Centers for Disease Control and Prevention in Atlanta has also published BMI charts for children (<http://apps.nccd.cdc.gov/dnpabmi/Calculator.aspx>).

Millions of Americans are overweight or obese, according to the CDC and NIH. This serious health epidemic has doubled in adults since 1980 and tripled in children and teenagers, according to federal statistics from the National Health and Nutrition Survey.

It might be past time for you to calculate your BMI.

### SELF HARM

A study of 41 adolescents conducted by researchers from the University of Washington appears to shed light on the self-harming behavior of some teenage girls, linking it to the level of serotonin in the adolescents’ blood and mother-daughter interaction.

The paper, co-authored by Sheila Crowell, a doctoral student at UW, appears in the February issue of the Journal of Consulting and Clinical Psychology.

A combination of negative mother-daughter relationships and low blood levels of serotonin, an important brain chemical for mood stability, appears to be dangerous for adolescent girls, leaving them vulnerable to engage in self-harming behaviors such as cutting themselves.

The UW research indicates that these factors in combination account for 64% of the difference among adolescents, primarily girls, who engage in self-harming behaviors and those who do not.

To understand this relationship, the UW researchers recruited 20 adolescents with a history of self-harming behavior and 21 adolescents of the same relative age who did not harm themselves.

Study participants were considered self-injuring if they had harmed themselves three or more times in the previous six months or five or more times in their lifetimes. The average age of the participants was 15.



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"Girls who engage in self-harm are at high risk for attempting suicide, and some of them are dying," said Theodore Beauchaine, a UW associate professor of psychology and co-author of the study.

Before puberty, boys and girls are equally likely to develop depressive disorders. By age 15, however, girls are twice as likely as boys to have experienced a major depressive episode, according to the National Institute of Mental Health.

Mental health experts believe there are many causes of depression. It likely results from a combination of genetic, biochemical, environmental and psychological factors.

However, low serotonin levels are believed to be the cause of many cases of mild to severe depression, which can lead to symptoms such as anxiety, apathy, fear, feelings of worthlessness, insomnia and fatigue.

The most concrete evidence for the connection between serotonin and depression is the decreased concentrations of serotonin found in the brain fluid, spinal fluid and brain tissues of depressed people.

Beauchaine said the UW found the link between the level of mother-daughter conflict and self-harming behavior was not strong. There was a stronger link between serotonin levels and self-harming behavior.

But when mother-daughter conflict and low serotonin levels were considered together, the relationship to self-harming behaviors was very strong.

"Most people think in terms of biology or environment rather than biology and environment working together," Beauchaine said. "Having a low level of serotonin is a biological vulnerability for self-harming behavior and that vulnerability increases remarkably when it is paired with maternal conflict."

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