# Healthy Living

**Information from the American Chiropractic Association & Dr. Joel Fugleberg**

# Understand Your Body Mass Index

Body mass index, or BMI, is important to understanding the health consequences your weight has on your body. Researchers have found that BMI can be directly related to a person's risk for many diseases. Because increased weight and obesity have such a profound effect on health, making it the leading cause in preventing many diseases, knowing your BMI is as important as understanding your cholesterol and blood pressure.

## Calculating Your BMI

You can easily calculate your BMI based on your weight and height with the following equation:

Step 1: Multiply your weight x 704

Step 2: Square your height (in inches)

Step 3: Divide your weight from Step 1 by your height in Step 2 to determine your BMI.

As an example: A woman weighing 155 pounds who is 5 feet 4 inches tall would calculate her BMI as follows:

Step 1: 155 x 704 = 109120

Step 2: 64 inches$^2$ = 4096

Step 3: 109120/ 4096 = 26.6

In this example, the woman has a BMI of 26.6, consistent with being overweight.

## The Categories of Obesity

According to the World Health Organization, there are 3 categories of obesity:

- BMI 25 to 29.9 - Grade 1 obesity (moderate overweight)
- BMI 30 to 39.9 - Grade 2 obesity (severe overweight)
- BMI> 40 - Grade 3 obesity (massive/morbid obesity)

***BMI can be directly related to a person's risk for many diseases. Knowing your BMI is as important as understanding your cholesterol and blood pressure.***

A BMI of 27 or higher is associated with increased morbidity and mortality; this is generally considered the point at which some form of treatment for obesity is required. A BMI between 25 and 27 is considered a warning sign and may warrant intervention, especially in the presence of additional risk factors such as diabetes or cardiovascular conditions.

## Reach Your Target BMI

To calculate your target BMI, use the following formula:

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Desired BMI x height squared / 704 = Goal weight

If the woman in the example wanted to reach a healthy BMI of at least 24:

24 x 4096 / 704 = 139 lbs

Which means she would need a weight loss of 16 pounds to reduce her risk of many health-related weight issues.

### Musculoskeletal Conditions Associated with Overweight and Obesity

BMIs that are higher than normal are strongly associated with arthritis. The younger people are when they become overweight, the greater their chances are of developing arthritis at a younger age, often adding to the need for surgical intervention such as hip and knee replacements. Obesity can complicate the overall success rate of these surgeries.

Excessive weight in the neck and shoulder areas can cause reductions in movement due to the presence of neck folds. The reduction of motion can cause arthritic changes, aberrant muscle motion and subsequent muscle pain and pulling on adjoining joint structures.

*Carpal Tunnel:* A condition caused by nerve impingement in the wrist causing pain, numbness and tingling in the fingers is associated with BMIs over 27.

*Knee Osteoarthritis:* A leading cause of disability with aging. Weight loss of 5 percent produces a profound positive effect in reducing knee pain. Joint forces in the hips and knees increase approximately three times that weight with normal walking. This means that 10 pounds of extra body weight is felt by the knees as an extra 30-pound load.

*Hip Osteoarthritis:* A leading cause of hip replacements. Higher BMIs correlate with higher risk of hip

replacements most likely because of the structural implications of increased weight and decreased activity.

*Ankle Osteoarthritis:* Increased weight bearing leads to greater wear and tear on the ankle joints in addition to abnormal joint mechanics that can increase the incidence of osteoarthritis.

*Lower Back Pain:* The deposition of fat, especially on the abdomen, prevents normal movements of the spine, such as side bending due to the presence of “love handles,” and increases the normal curvature of the spine resulting in abnormal and restricted motion of the spine. Because those with weight issues are also more sedentary, the core strength of the abdomen, known to be associated with a healthy back, is weakened and further exacerbates chronic lower-back pain.

Doctors of chiropractic are trained to effectively address your musculoskeletal complaints. They can also help you work on reducing your BMI through nutritional intervention, increased physical activity and other lifestyle modifications. ■

**Dr. Joel Fugleberg is a chiropractor, fitness advocate, author, and health & wellness speaker in St. Paul, MN. His mission is to empower others to take a proactive approach in their health, through the use of chiropractic and other natural strategies, to achieve optimal function and wellness. With his background, he has helped thousands reach a higher level of health in his community.**

*If you would like to schedule a consultation, or to have Dr. Joel speak at your organization or event, he can be reached at the contact info listed below.*

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