Self Test

In assessing your risk of developing secondary health conditions, your doctor may look at your family history and existing medical conditions, ask questions about habits and behavior, take a measurement of your waist circumference to determine abdominal fat, and calculate your body mass index (BMI). Follow the directions below to calculate your own BMI. If your BMI is greater than 25, ask your healthcare provider if NeuroScience products and services are right for you.

The Body Mass Index Formula

The body mass index formula uses height and weight measurements to determine the measure of body fat. The same formula applies to calculating BMI for men and women.

The body mass index formula is:

US measurements: [weight (lbs.) ÷ height (inches) ÷ height (inches)] x 703

Metric measurements: [weight (kg) ÷ height (cm) ÷ height (cm)] x 10,000

Example: A woman weighs 180 lbs (81 kg) and is 5’ 4’’ (64 inches or 162 cm) tall

Her BMI is:

US measurements: (180 lbs ÷ 64 in ÷ 64 in) x 703 = 31

Metric measurements: (81 kg ÷ 162 cm ÷ 162 cm) x 10,000 = 31

Calculate your BMI here:

Your Weight _____ Your Height _____ Your BMI _____

BMI is only one of many factors used to predict risk for disease. BMI cannot be used to tell a person if he/she has a disease such as diabetes or cancer. It is important to remember that weight is only one factor that is related to disease.

Obesity is defined as a BMI of 30 or greater. A waist circumference of greater than 40 inches (102 cm) for men or 35 inches (88 cm) for women indicates an increased risk of health problems. If you are obese and have a high waist circumference, even a ten-percent weight loss can reduce your risk of developing diseases associated with obesity.

BMI Scale	
Below 18.5	Underweight
18.5 - 24.9	Normal
25.0 - 29.9	Overweight
30.0 & above	Obese

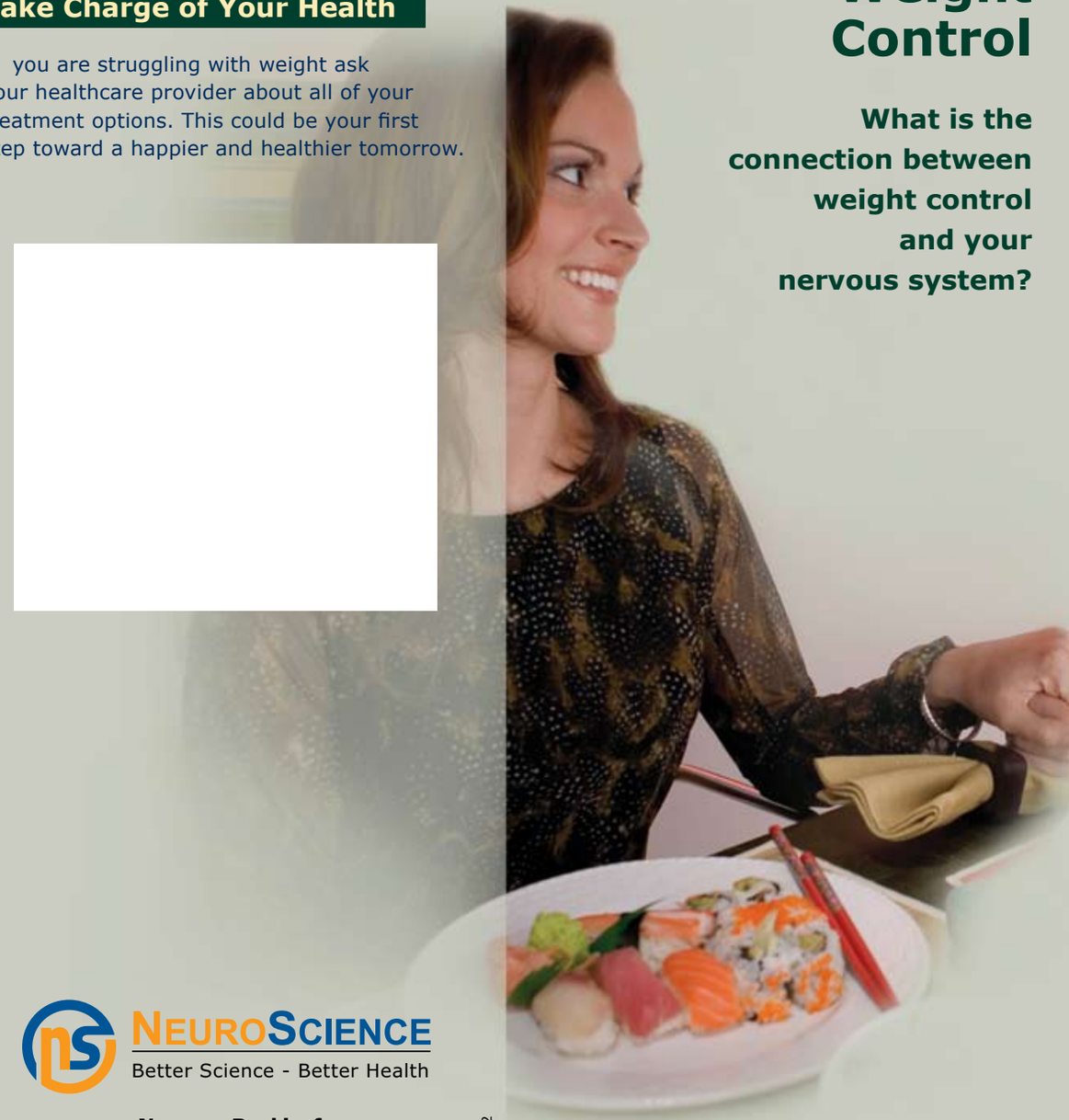
Adapted from: National Heart, Lung, and Blood Institute

Take Charge of Your Health

If you are struggling with weight ask your healthcare provider about all of your treatment options. This could be your first step toward a happier and healthier tomorrow.

Weight Control

What is the connection between weight control and your nervous system?



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Battling the Bulge

While some people struggle with weight gain throughout their lives, many healthy individuals find they have trouble keeping the pounds off as the years go by. Additionally, many people find that they are eating less than they used to, but are still gaining weight.

Weight gain is the result of an imbalance between calories consumed and calories used. Behavior, environment, and genetics can all affect this balance. Caloric balance is maintained within the body by chemical messengers, known as neurotransmitters and hormones, that are involved in helping the body store and break down fat to meet the body's daily energy needs. When this system fails to function, a person's appetite is stimulated and food intake is increased even though they should feel full.

Conditions related to obesity

Diabetes
Osteoarthritis
Some Cancers
High Blood Pressure
Kidney Disease
Liver Disease
Depression
Social Withdrawal
Gallstones
Cardiovascular Disease
Low Self-Esteem
Obstructive Sleep Apnea
Premature Death
Pregnancy Complication

Fat Facts

- 30% of adults are obese.*
- 66% of adults are either overweight or obese.*
- 16% of children and adolescents ages 6-19 are overweight.*
- Mood disturbances are a risk factor for weight gain.
- Children are increasingly being diagnosed with diet-related issues that used to be seen only in adults, such as type 2 diabetes, high cholesterol, and high blood pressure.
- Obesity-related expenditures increase healthcare costs by $117 billion each year.*

"Imbalances in neurotransmitters are common."

* Data adapted from the Center for Disease Control

Weight Control Issues & Neurotransmitter Levels

Weight Control Issues are among the most common neurotransmitter-related conditions. Others include anxiety disorders, compulsive behaviors, insomnia, and migraines.

Neurotransmitters are chemicals that relay signals between nerve cells, called "neurons." They are present throughout the body and are required for proper brain and body functions. Serious health problems, including depression and anxiety, may occur if certain neurotransmitter levels are too high or too low.

Every neurotransmitter behaves differently. Some are inhibitory and tend to calm, while others are excitatory and stimulate the brain. Healthcare professionals conclude that specific neurotransmitter imbalances are more likely to underlie certain conditions. Deficiencies involving the central nervous system's neurotransmitters—serotonin and norepinephrine—appear to be involved in the development of weight control issues. Disruptions in other neurotransmitters, like GABA and glycine, have been more closely linked to anxiety disorders.

Environmental and biological factors—including stress, poor diet, neurotoxins, or genetics—can cause imbalances in the levels of neurotransmitter chemicals in the brain. These imbalances can trigger or exacerbate weight control issues.

Improving Treatment

Most of the drug-based methods used to treat weight control issues include chemicals that either imitate a neurotransmitter or redistribute existing neurotransmitters. Many affect serotonin, and some affect other neurotransmitters like GABA, norepinephrine, or dopamine. It is generally believed that drugs supporting serotonin signaling will be beneficial when weight control issues result from a lack of serotonin and that GABA supporting drugs will be effective when a person's symptoms are caused by a lack of GABA. While the idea of matching a drug to a chemical imbalance is generally supported, the vast majority of healthcare providers prescribe weight control programs based on a patient's symptoms and few try to match a program to a biochemical imbalance. This may explain why some programs are ineffective for some patients.

Neurotransmitter function can also be supported with nutrient-based programs. Neurotransmitters are made from various components of food in a normal, healthy diet. Increasing the amounts of these dietary constituents can help maintain normal neurotransmitter levels.

While no program can guarantee success for everyone, it is worthwhile to effectively match a drug-based and/or nutrient-based program to the specific needs of the individual.