

Obesity Sweeps Our Nation – Overcoming Obesity with Therapeutic Lifestyle Changes

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There is an overwhelming amount of evidence from multiple studies that links most chronic diseases to physical inactivity and poor nutrition. 1 In fact, between 70% to 90% of deaths from chronic illnesses in the U.S. are believed to be caused by sedentary living, poor nutrition, and tobacco use. 2 Heart disease, type 2 diabetes, and stroke are leading causes of death in both men and women.

Obesity is associated with many chronic diseases such as coronary heart disease, type 2 diabetes, metabolic syndrome or insulin resistance syndrome, hypertension, dyslipidemia, osteoarthritis, and gall bladder disease. Approximately 167 million adults are considered overweight in the United States. Furthermore, 60 million are obese and 9 million are severely obese. In the 2003–2004 National Health and Nutrition Examination Survey (NHANES) an estimated 66% of U.S. adults are either overweight or obese. 3 Clearly, obesity in adults as well as children is becoming a national epidemic. According to a study published in the Journal of American Medical Association in 2003, obesity reduces a lifespan by 8-20 years. 4 More studies are giving us insight into the biochemical effects of obesity. Fat cells or adipose cells especially in the abdomen increase insulin resistance and produces inflammatory cytokines. Inflammation has now been linked to multiple degenerative diseases like heart disease, type 2 diabetes, and osteoarthritis. 5

Body mass index (BMI) is one way to measure one's risk of developing chronic diseases associated with obesity. A BMI of 18.5 to 24.9 is considered normal. A BMI of 25 to 29.9 indicates that a person is overweight. Obesity is defined as a body mass index of 30 or greater. To calculate your BMI, use the formula: weight (lbs)/height (in)/height (in) x 703. Measuring your body composition or lean muscle mass to fat mass ratio with a bioimpedance analysis device provides an even more accurate screening tool to measure your risk for developing chronic illnesses.

Metabolic syndrome also called syndrome X and insulin resistance syndrome is a cluster of conditions that occur together, increasing your risk for heart disease, stroke and diabetes. The typical patient with metabolic syndrome has an apple-shaped body where the majority of their weight is carried around the abdomen. High blood pressure, high triglycerides, low HDL-cholesterol, and insulin resistance are also classic signs of metabolic syndrome. Please see Figure 1 to see the defining parameters for diagnosing metabolic syndrome. Approximately 90 million Americans have insulin resistance. The underlying cause of metabolic syndrome is resistance to insulin. High insulin raises triglycerides, LDL-cholesterol, blood pressure and slows fat metabolism. The following factors increase your chances of having metabolic syndrome:

- Age. Prevalence increases with age, affecting less than 10 percent of people in their 20s and 40 percent of people in their 60s. However, one study shows that about one in eight children and young adolescents have three or more components of metabolic syndrome. 6
- Race. Hispanics and Asians seem to be at greater risk.
- Obesity. A body mass index (BMI) greater than 25 and abdominal obesity increases risk.
- History of diabetes. There is an increased risk with family history of type 2 diabetes or a history of diabetes during pregnancy also called gestational diabetes.
- Other diseases. A diagnosis of high blood pressure, cardiovascular disease or polycystic ovary syndrome increases your risk of developing metabolic syndrome.

Risk Factors	Defining Level
Abdominal obesity, given as waist circumference	
Men	>102 cm (>40 in)
Women	>88 cm (>35 in)
Triglycerides	≥150 mg/dL (≥1.7 mmol/L)
HDL cholesterol	
Men	<40 mg/dL (<1.0 mmol/L)
Women	<50 mg/dL (<1.3 mmol/L)
Blood pressure	≥130/≥85 mm Hg
Fasting glucose	≥110 mg/dL (≥ 6.1 mmol/L)

National clinical guidelines for chronic illnesses advocate a multifactorial lifestyle approach also known as a “therapeutic lifestyle changes” or TLC. Degenerative diseases often thought to be associated with aging are not inevitable consequences of the aging process. Symptoms of fatigue, poor memory, chronic pain and weight gain are not signs of aging, but rather signs of illness. Therapeutic lifestyle-modification programs can significantly improve nutrition and physical activity behavior and effectively address the symptoms and risk factors associated with common chronic illnesses.

According to a study published in the American College of Physicians in 2005 lifestyle modification delayed the development of type 2 diabetes in adults with impaired glucose tolerance by 11 years versus 3 years with metformin or drug intervention. Lifestyle modification also reduced the incidence of type 2 diabetes by 20% and was much more cost-effective than drug intervention.

Firstline Therapy is a unique program that is more than a weight loss program. Firstline Therapy is a comprehensive therapeutic lifestyle change program best used as a first line treatment for common, chronic health problems, such as high cholesterol, obesity, high blood pressure and insulin resistance. Firstline Therapy effectively addresses the underlying causes of these conditions, such as unhealthy body composition, high fat mass, low muscle mass, insulin resistance, hormone imbalance, and inflammation with the use of a healthy low-glycemic-index dietary regimen, stress management and exercise program and plant sterol based medical food and nutraceuticals.

In a 12-week clinical trial in postmenopausal women at risk for cardiovascular disease, Firstline Therapy program demonstrated a greater improvement in cardiovascular health markers when compared to a standard American Heart Association Step 1 dietary plan and exercise. The participants in the Firstline Therapy program showed statistically significant decreases in total cholesterol, LDL cholesterol, and triglycerides. In a 12 week Firstline Therapy intervention study, overweight postmenopausal women with elevated LDL cholesterol had lost an average of 15 pounds, improved lean body mass by 3%, increased HDL cholesterol by 6%, and decreased triglycerides by 45%, total cholesterol by 16%, LDL cholesterol by 15%, fasting insulin by 25%, and blood pressure by 5%/8%. 7

Taking preventative steps to overcome obesity and metabolic syndrome with therapeutic lifestyle changes today can have a profoundly positive impact on your life tomorrow.

References:

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