

## What are overweight and obesity?

- Overweight and obesity are conditions that result from excess body fat and/or abnormal body fat distribution.
- For adults, the amount of body fat is usually estimated by using weight and height to calculate a number called the body mass index (BMI). For an adult BMI calculator visit [esmmweighless.com/tools/calculators-quizzes/bmi-calculator](http://esmmweighless.com/tools/calculators-quizzes/bmi-calculator). BMI is not a direct measure of body fat, but for most people, it correlates with their amount of body fat.
- Overweight and obesity are generally defined by ranges of BMI that are associated with an increased likelihood of certain diseases and other health problems. Table 1 shows how BMI is generally used to classify weight status for adults.

**Table 1. Classification of weight status by BMI for adults**

Body Mass Index (BMI)	Weight Status
Below 18.5	Underweight
18.5 to 24.9	Healthy weight
25.0 to 29.9	Overweight
30.0 or higher	Obese

Adapted from [www.cdc.gov/obesity/adult/defining.html](http://www.cdc.gov/obesity/adult/defining.html)

- A variety of factors play a role in overweight and obesity including: environment, socioeconomic status, culture, behavior, some physical and mental conditions, genetics and medications.
- ## How many adults are overweight or obese?
- Two out of every three adults in the United States (65% or 157 million people) are either overweight or obese.<sup>1</sup>
  - North Carolina has the ninth highest prevalence of overweight and the 26th highest prevalence of obesity among the 50 states and Washington, D.C.<sup>1</sup>
  - An estimated five million North Carolina adults (66%) are either overweight or obese.<sup>2</sup>
  - Non-Hispanic African-Americans (prevalence = 74.3%) are more likely to be overweight or obese compared to non-Hispanic Whites (prevalence = 64.2%) in North Carolina.<sup>2</sup>
  - There is geographic variation in the prevalence of overweight and obesity in North Carolina with the eastern part of the state generally having a higher burden. (See Figure 1.)

## What are the complications of obesity?

- Being overweight or obese increases the risk of several conditions including: type 2 diabetes, hypertension (high blood pressure), heart disease and stroke, cancers (e.g., endometrial, breast, colon), dyslipidemia (e.g., high total cholesterol, high levels of triglycerides), liver and gallbladder disease, sleep apnea and respiratory problems, osteoarthritis (a degeneration of cartilage and its underlying bone within a joint) and gynecological problems (e.g., abnormal menses, infertility).

- Many North Carolinians suffer from complications of overweight and obesity. According to the 2013 NC Behavioral Risk Factor Surveillance System (BRFSS) survey:
  - 86% of people with diabetes are overweight or obese.
  - 79% of people with high blood pressure are overweight or obese.
  - 73% of people with a history of heart disease or stroke are overweight or obese.
  - 77% of people with high cholesterol are overweight or obese.
- For more data about diabetes, high blood pressure, heart disease and stroke in North Carolina, please visit [communityclinicalconnections.com/Data](http://communityclinicalconnections.com/Data).
- For more information about cancer in North Carolina, please visit [publichealth.nc.gov/chronicdiseaseandinjury/cancerpreventionandcontrol](http://publichealth.nc.gov/chronicdiseaseandinjury/cancerpreventionandcontrol).

## What are the risk factors for overweight and obesity?

- The basic cause of overweight and obesity is calorie (energy) imbalance whereby calorie intake is greater than calorie use. Consequently, diet (calorie intake) and physical activity (calorie use) are major determinants of overweight and obesity.
  - In North Carolina, over half of adults (52%) do not get the recommended 150 minutes per week of moderate-intensity aerobic physical activity.<sup>3</sup>
- Environments that lack places for physical activity or have limited access to healthy food options also contribute to overweight and obesity. For example, an individual's opportunities to consume the recommended daily amount of fruits and vegetables may be limited because the stores in their community do not sell fruits or vegetables.
- In certain rare disorders, genes can directly cause overweight and obesity. More commonly however, multiple genes may increase one's susceptibility for overweight or obesity but require outside factors, such as excess calorie intake and/or insufficient physical activity, for overweight or obesity to actually develop.
- Some illnesses, such as Cushing's disease and polycystic ovary syndrome, as well as some drugs, such as steroids and antidepressants, may cause weight gain that leads to overweight or obesity.

## What options are available to prevent or manage overweight and obesity?

- The main objectives for the management of overweight and obesity are gradual and steady weight loss until a healthy weight is achieved, and thereafter, maintenance of a healthy weight. Even modest weight loss may lead to significant health benefits and the prevention or delay of complications.
- Engaging in regular physical activity (see Table 2 for detailed physical activity guidelines) and maintaining a healthy diet are the underpinnings of any successful weight loss plan. For general information on physical activity, healthy eating and strategies for healthy weight loss, please visit [myeatSMARTmoveMore.com](http://myeatSMARTmoveMore.com), [esmmweighless.com](http://esmmweighless.com) and [cdc.gov/healthyweight](http://cdc.gov/healthyweight).

- **North Carolina's Obesity Prevention Plan** identifies the following core behaviors to address overweight and obesity:
  - Increase physical activity.
  - Increase consumption of fruits and vegetables.
  - Decrease consumption of sugar-sweetened beverages.
  - Reduce consumption of energy-dense foods.
  - Decrease television viewing and screen time.
  - Increase breastfeeding initiation, duration and exclusivity.<sup>4</sup>

To learn how strategies related to these behaviors can be applied in eight different community settings, please visit [eatsmartmovemorenc.com](http://eatsmartmovemorenc.com).

- Creating environments that make it easier to engage in physical activity and healthy eating in community, home, child care, school, health care and workplace settings is a proven strategy in controlling overweight and obesity. To learn more about the North Carolina Division of Public Health's efforts to promote environments that foster physical activity and healthy eating, please visit [communityclinicalconnections.com/What\\_We\\_Do/improve.html](http://communityclinicalconnections.com/What_We_Do/improve.html).
- In some cases, medication and surgical procedures may be needed to complement lifestyle changes for weight loss.
- Individuals on medications or with health conditions that may lead to weight gain should talk to his/her health care provider about how to best manage his/her condition and prevent obesity.

**Table 2: Adult Physical Activity Guidelines**

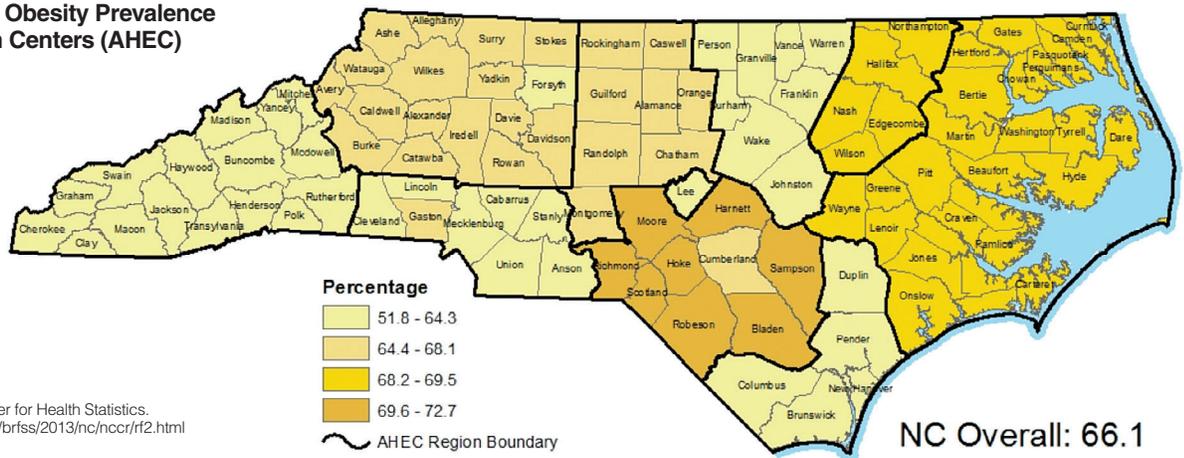
All adults should avoid inactivity. Some physical activity is better than none, and adults who participate in any amount of physical activity gain some health benefits.

For substantial health benefits, adults should do at least 150 minutes (2 hours and 30 minutes) a week of moderate-intensity, or 75 minutes (1 hour and 15 minutes) a week of vigorous-intensity aerobic physical activity or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Aerobic activity should be performed in episodes of at least 10 minutes, and preferably, it should be spread throughout the week.

For additional and more extensive health benefits, adults should increase their aerobic physical activity to 300 minutes (5 hours) a week of moderate-intensity, or 150 minutes (2 hours and 30 minutes) a week of vigorous-intensity aerobic physical activity or an equivalent combination of moderate- and vigorous-intensity activity. Additional health benefits are gained by engaging in physical activity beyond this amount.

Adults should also do muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on 2 or more days a week, as these activities provide additional health benefits.

**Figure 1. Overweight and Obesity Prevalence by Area Health Education Centers (AHEC) Regions, NC, 2013**



**Data Source:** North Carolina State Center for Health Statistics. Accessed at [www.schs.state.nc.us/data/brfss/2013/nc/nccr/rf2.html](http://www.schs.state.nc.us/data/brfss/2013/nc/nccr/rf2.html) in January, 2015.

**REFERENCES**

- Centers for Disease Control and Prevention. Office of Surveillance, Epidemiology, and Laboratory Services. Behavioral Risk Factor Surveillance System. Accessed at [apps.nccd.cdc.gov/brfss/list.asp?cat=OB&yr=2013&qkey=8261&state=All](http://apps.nccd.cdc.gov/brfss/list.asp?cat=OB&yr=2013&qkey=8261&state=All) on January 09, 2014.
- North Carolina Department of Health and Human Services, Division of Public Health, State Center for Health Statistics. Behavioral Risk Factor Surveillance System (BRFSS). Accessed at [www.schs.state.nc.us/data/brfss/2013/nc/all/rf2.html](http://www.schs.state.nc.us/data/brfss/2013/nc/all/rf2.html) on January 09, 2014.
- North Carolina Department of Health and Human Services, Division of Public Health, State Center for Health Statistics. Behavioral Risk Factor Surveillance System (BRFSS). Accessed at [www.schs.state.nc.us/data/brfss/2013/nc/all/\\_PAINDX1.html](http://www.schs.state.nc.us/data/brfss/2013/nc/all/_PAINDX1.html) on January 09, 2014.
- Eat Smart, Move More North Carolina Leadership Team. 2013. *North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities 2013–2020*. Eat Smart, Move More NC, Raleigh, NC. Available at: [www.eatsmartmovemorenc.com](http://www.eatsmartmovemorenc.com).

In addition to the above references, this fact sheet was developed with heavy reliance on information from the Centers for Disease Control and Prevention website: [www.cdc.gov/obesity/index.html](http://www.cdc.gov/obesity/index.html).