

# Do You Know the Health Risks of Being Overweight?



U.S. DEPARTMENT  
OF HEALTH AND  
HUMAN SERVICES

**WIN** *Weight-control Information Network*

## What are the risks to my health from being overweight?

Weighing too much may increase your risk for developing many health problems. If you are overweight or obese on a body mass index (BMI) chart (see page 2), you may be at risk for:

- Type 2 diabetes
- Heart disease and stroke
- Cancer
- Sleep apnea
- Osteoarthritis
- Gallbladder disease
- Fatty liver disease.

You can lower your health risks by losing as little as 10 to 20 pounds.

## Type 2 diabetes

### What is it?

Type 2 diabetes used to be called adult-onset diabetes or noninsulin-dependent diabetes. It is the most common type of diabetes in the U.S. Type 2 diabetes is a disease in which blood sugar levels are above normal. High blood sugar is a major cause of early death, heart disease, kidney disease, stroke, and blindness.

### How is it linked to overweight?

More than 80 percent of people with type 2 diabetes are overweight. It is not known exactly why people who are overweight are more likely to suffer from this disease. It may be that being overweight causes cells to

If you are overweight, you are more likely to develop certain health problems. You can improve your health by losing as little as 10 to 20 pounds.



## Body Mass Index Table

To use the table, find the appropriate height in the left-hand column labeled Height. Move across to a given weight. The number at the top of the column is the BMI at that height and weight. Pounds have been rounded off.

| BMI             | 19                   | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30  | 31  | 32  | 33  | 34  | 35  | 36  | 37  | 38  | 39  | 40  |
|-----------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Height (inches) | Body Weight (pounds) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 58              | 91                   | 96  | 100 | 105 | 110 | 115 | 119 | 124 | 129 | 134 | 138 | 143 | 148 | 153 | 158 | 162 | 167 | 172 | 177 | 181 | 186 | 191 |
| 59              | 94                   | 99  | 104 | 109 | 114 | 119 | 124 | 128 | 133 | 138 | 143 | 148 | 153 | 158 | 163 | 168 | 173 | 178 | 183 | 188 | 193 | 198 |
| 60              | 97                   | 102 | 107 | 112 | 118 | 123 | 128 | 133 | 138 | 143 | 148 | 153 | 158 | 163 | 168 | 174 | 179 | 184 | 189 | 194 | 199 | 204 |
| 61              | 100                  | 106 | 111 | 116 | 122 | 127 | 132 | 137 | 143 | 148 | 153 | 158 | 164 | 169 | 174 | 180 | 185 | 190 | 195 | 201 | 206 | 211 |
| 62              | 104                  | 109 | 115 | 120 | 126 | 131 | 136 | 142 | 147 | 153 | 158 | 164 | 169 | 175 | 180 | 186 | 191 | 196 | 202 | 207 | 213 | 218 |
| 63              | 107                  | 113 | 118 | 124 | 130 | 135 | 141 | 146 | 152 | 158 | 163 | 169 | 175 | 180 | 186 | 191 | 197 | 203 | 208 | 214 | 220 | 225 |
| 64              | 110                  | 116 | 122 | 128 | 134 | 140 | 145 | 151 | 157 | 163 | 169 | 174 | 180 | 186 | 192 | 197 | 204 | 209 | 215 | 221 | 227 | 232 |
| 65              | 114                  | 120 | 126 | 132 | 138 | 144 | 150 | 156 | 162 | 168 | 174 | 180 | 186 | 192 | 198 | 204 | 210 | 216 | 222 | 228 | 234 | 240 |
| 66              | 118                  | 124 | 130 | 136 | 142 | 148 | 155 | 161 | 167 | 173 | 179 | 186 | 192 | 198 | 204 | 210 | 216 | 223 | 229 | 235 | 241 | 247 |
| 67              | 121                  | 127 | 134 | 140 | 146 | 153 | 159 | 166 | 172 | 178 | 185 | 191 | 198 | 204 | 211 | 217 | 223 | 230 | 236 | 242 | 249 | 255 |
| 68              | 125                  | 131 | 138 | 144 | 151 | 158 | 164 | 171 | 177 | 184 | 190 | 197 | 203 | 210 | 216 | 223 | 230 | 236 | 243 | 249 | 256 | 262 |
| 69              | 128                  | 135 | 142 | 149 | 155 | 162 | 169 | 176 | 182 | 189 | 196 | 203 | 209 | 216 | 223 | 230 | 236 | 243 | 250 | 257 | 263 | 270 |
| 70              | 132                  | 139 | 146 | 153 | 160 | 167 | 174 | 181 | 188 | 195 | 202 | 209 | 216 | 222 | 229 | 236 | 243 | 250 | 257 | 264 | 271 | 278 |
| 71              | 136                  | 143 | 150 | 157 | 165 | 172 | 179 | 186 | 193 | 200 | 208 | 215 | 222 | 229 | 236 | 243 | 250 | 257 | 265 | 272 | 279 | 286 |
| 72              | 140                  | 147 | 154 | 162 | 169 | 177 | 184 | 191 | 199 | 206 | 213 | 221 | 228 | 235 | 242 | 250 | 258 | 265 | 272 | 279 | 287 | 294 |
| 73              | 144                  | 151 | 159 | 166 | 174 | 182 | 189 | 197 | 204 | 212 | 219 | 227 | 235 | 242 | 250 | 257 | 265 | 272 | 280 | 288 | 295 | 302 |
| 74              | 148                  | 155 | 163 | 171 | 179 | 186 | 194 | 202 | 210 | 218 | 225 | 233 | 241 | 249 | 256 | 264 | 272 | 280 | 287 | 295 | 303 | 311 |
| 75              | 152                  | 160 | 168 | 176 | 184 | 192 | 200 | 208 | 216 | 224 | 232 | 240 | 248 | 256 | 264 | 272 | 279 | 287 | 295 | 303 | 311 | 319 |
| 76              | 156                  | 164 | 172 | 180 | 189 | 197 | 205 | 213 | 221 | 230 | 238 | 246 | 254 | 263 | 271 | 279 | 287 | 295 | 304 | 312 | 320 | 328 |

change, making them less effective at using sugar from the blood. This then puts stress on the cells that produce insulin (a hormone that carries sugar from the blood to cells) and makes them gradually fail.

### What can weight loss do?

You can lower your risk for developing type 2 diabetes by losing weight and increasing the amount of physical activity you do. If you have type 2 diabetes, losing weight and becoming more physically active can help you control your blood

sugar levels. Losing weight and exercising more may also allow you to reduce the amount of diabetes medication you take.

### Heart disease and stroke

#### What is it?

Heart disease means that the heart and circulation (blood flow) are not functioning normally. If you have heart disease, you may suffer from a heart attack, congestive heart failure, sudden cardiac

death, angina (chest pain), or abnormal heart rhythm. During a stroke, blood and oxygen do not flow normally to the brain, possibly causing paralysis or death. Heart disease is the leading cause of death in the U.S., and stroke is the third leading cause.

### **How is it linked to overweight?**

People who are overweight are more likely to suffer from high blood pressure, high levels of triglycerides (blood fats) and LDL cholesterol (a fat-like substance often called the "bad cholesterol"), and low levels of HDL cholesterol (the "good cholesterol"). These are all risk factors for heart disease and stroke. In addition, people with more body fat have higher blood levels of substances that cause inflammation. Inflammation in blood vessels and throughout the body may raise heart disease risk.

### **What can weight loss do?**

Losing 5 to 15 percent of your weight can lower your chances for developing heart disease or having a stroke. If you weigh 200 pounds, this means losing as little as 10 pounds. Weight loss may improve your blood pressure, triglyceride, and cholesterol levels; improve how your heart works and your blood flows; and decrease inflammation throughout your body.

## **Cancer**

### **What is it?**

Cancer occurs when cells in one part of the body, such as the colon, grow abnormally or out of control and possibly spread to other parts of the body, such as the liver. Cancer is the second leading cause of death in the U.S.

### **How is it linked to overweight?**

Being overweight may increase the risk of developing several types of cancer, including cancers of the colon, esophagus, and kidney. Overweight is also

linked with uterine and postmenopausal breast cancer in women. Gaining weight during adult life increases the risk for several of these cancers. Being overweight also may increase the risk of dying from some cancers. It is not known exactly how being overweight increases cancer risk. It may be that fat cells make hormones that affect cell growth and lead to cancer. Also, eating or physical activity habits that may lead to being overweight may also contribute to cancer risk.

### **What can weight loss do?**

Avoiding weight gain may prevent a rise in cancer risk. Weight loss, and healthy eating and physical activity habits, may lower cancer risk.

## **Sleep apnea**

### **What is it?**

Sleep apnea is a condition in which a person stops breathing for short periods during the night. A person who has sleep apnea may suffer from daytime sleepiness, difficulty concentrating, and even heart failure.

### **How is it linked to overweight?**

The risk for sleep apnea is higher for people who are overweight. A person who is overweight may have more fat stored around his or her neck. This may make the airway smaller. A smaller airway can make breathing difficult, loud (snoring), or stop altogether. In addition, fat stored in the neck and throughout the body can produce substances that cause inflammation. Inflammation in the neck may be a risk factor for sleep apnea.

### **What can weight loss do?**

Weight loss usually improves sleep apnea. Weight loss may help to decrease neck size and lessen inflammation.

## Osteoarthritis

### What is it?

Osteoarthritis is a common joint disorder. With osteoarthritis, the joint bone and cartilage (tissue that protects joints) wear away. Osteoarthritis most often affects the joints of the knees, hips, and lower back.

### How is it linked to overweight?

Extra weight may place extra pressure on joints and cartilage, causing them to wear away. In addition, people with more body fat may have higher blood levels of substances that cause inflammation. Inflammation at the joints may raise the risk for osteoarthritis.

### What can weight loss do?

Weight loss can decrease stress on your knees, hips, and lower back, and lessen inflammation in your body. If you have osteoarthritis, losing weight may help improve your symptoms.

## Gallbladder disease

### What is it?

Gallstones are clusters of solid material that form in the gallbladder. They are made mostly of cholesterol and can sometimes cause abdominal or back pain.

### How is it linked to overweight?

People who are overweight have a higher risk for developing gallbladder disease and gallstones. They may produce more cholesterol, a risk factor for gallstones. Also, people who are overweight may have an enlarged gallbladder, which may not work properly.

## What can weight loss do?

Weight loss—especially fast weight loss (more than 3 pounds per week) or loss of a large amount of weight—can actually increase your chance of developing gallstones. Modest, slow weight loss of about 1/2 to 2 pounds a week is less likely to cause gallstones.

## Fatty liver disease

### What is it?

Fatty liver disease occurs when fat builds up in the liver cells and causes injury and inflammation in the liver. It can sometimes lead to severe liver damage, cirrhosis (build-up of scar tissue that blocks proper blood flow in the liver), or even liver failure. Fatty liver disease is like alcoholic liver damage, but it is not caused by alcohol and can occur in people who drink little or no alcohol. The National Digestive Diseases Information Clearinghouse (NDDIC) at <http://digestive.niddk.nih.gov/ddiseases/pubs/nash/> has more information on fatty liver disease or nonalcoholic steatohepatitis (NASH).

### How is it linked to overweight?

People who have diabetes or “pre-diabetes” (when blood sugar levels are higher than normal but not yet in the diabetic range) are more likely to have fatty liver disease than people without these conditions. And people who are overweight are more likely to have diabetes (see Type 2 diabetes above). It is not known why some people who are overweight or diabetic get fatty liver and others do not.

### What can weight loss do?

Losing weight can help you control your blood sugar levels. It can also reduce the build-up of fat in your liver and prevent further injury. *People with fatty liver disease should avoid drinking alcohol.*

## How can I lower my health risks?

If you are overweight, losing as little as 5 percent of your body weight may lower your risk for several diseases, including heart disease and diabetes. If you weigh 200 pounds, this means losing 10 pounds. Slow and steady weight loss of 1/2 to 2 pounds per week, and not more than 3 pounds per week, is the safest way to lose weight.

To lose weight and keep it off over time, try to make long-term changes in your eating and physical activity habits. Choose healthy foods, such as vegetables, fruits, whole grains, and low-fat meat and dairy products, more often and eat just enough food to satisfy you. Try to do at least 30 minutes of moderate-intensity physical activity—like walking—on most days of the week, preferably every day. To lose weight, or to maintain weight loss, you may need to do more than 30 minutes of moderate physical activity daily.

The Weight-control Information Network (WIN) offers many fact sheets to help you eat better and increase your physical activity. WIN fact sheets are listed below.

*Active at Any Size* describes the benefits of being physically active no matter what a person's size, and presents a variety of activities that very large people can enjoy safely.

*Just Enough for You: About Food Portions* describes the difference between a portion—the amount of food a person chooses to eat—and a measured serving. It offers tips for judging portion sizes and for controlling portions at home and when eating out.

*Walking...A Step in the Right Direction* offers tips for getting started on a walking program and illustrates warm-up stretching exercises. It also includes a sample walking program.

*Weight and Waist Measurement Tools for Adults* offers guidance on determining whether your weight is healthy.

*Weight Loss for Life* contains information about safe and effective weight loss programs and offers tips to help you create your own weight loss plan.

## Additional resources

### National Cancer Institute

NCI Public Inquiries Office

Suite 3036A

6116 Executive Boulevard, MSC8322

Bethesda, MD 20892-8322

Phone: 1-800-4-CANCER (1-800-422-6237)

TTY: 1-800-332-8615

[www.nci.nih.gov](http://www.nci.nih.gov)

### National Diabetes Information Clearinghouse

1 Information Way

Bethesda, MD 20892-3560

Phone: 1-800-860-8747 or (301) 654-3327

<http://diabetes.niddk.nih.gov>

### National Digestive Diseases Information Clearinghouse

2 Information Way

Bethesda, MD 20892-3570

Phone: 1-800-891-5389 or (301) 654-3810

<http://digestive.niddk.nih.gov>

### National Heart, Lung, and Blood Institute

NHLBI Health Information Center

P.O. Box 30105

Bethesda, MD 20824-0105

Phone: (301) 592-8573

TTY: (240) 629-3255

[www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)

National Institute of Arthritis and Musculoskeletal and Skin Diseases

Information Clearinghouse

1 AMS Circle

Bethesda, Maryland 20892-3675

Phone: 1-877-22-NIAMS (1-877-226-4267) or (301) 495-4484

TTY: (301) 565-2966

[www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)

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The Weight-control Information Network (WIN) is a service of the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health, which is the Federal Government's lead agency responsible for biomedical research on nutrition and obesity. Authorized by Congress (Public Law 103-43), WIN provides the general public, health professionals, the media, and Congress with up-to-date, science-based health information on weight control, obesity, physical activity, and related nutritional issues.

WIN answers inquiries, develops and distributes publications, and works closely with professional and patient organizations and Government agencies to coordinate resources about weight control and related issues.

Publications produced by WIN are reviewed by both NIDDK scientists and outside experts. This publication was reviewed by Rachel Ballard-Barbash, M.D., M.P.H., Associate Director, Applied Research Program, National Cancer Institute; Robert Eckel, M.D., Professor of Medicine, Physiology, and Biophysics, University of Colorado Health Sciences Center; and Arthur Frank, M.D., Medical Director, The George Washington University Weight Management Program.



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