14. Maintaining a Healthy Weight

For the Teacher

According to the Centers for Disease Control and Prevention, there has been a significant rise in obesity in adults over the last 20 years. Data from the National Center for Health Statistics indicate that more than 60 million adults age 20 and older are obese. This is approximately 30 percent of the U.S. adult population. This problem is not limited to adults. In the last 20 years the percentage of overweight young people has more than tripled, to the point where more than nine million children and teens, or 16 percent, are overweight.

Body Mass Index, or BMI, is used to determine healthy body weights. A BMI between 25.0 and 29.9 is considered “overweight,” while a BMI of 30.0 or greater can be classified as “obese.” Anyone more than 100 pounds overweight is considered “morbidly obese.”

Obesity and overweight occur when excess calories are taken into the body. The basic daily nutritional need is 2,000 calories for women and 2,500 calories for men. (Note that individual needs will vary, depending on the person’s metabolism and activity level.) If excess protein and carbohydrates are taken into the body, they will be converted into fat for storage, resulting in weight gain.

Maintaining a healthy weight will keep a person’s heart healthy. However, there is a greater risk of illness and death for people who are overweight or obese due to coronary artery disease, stroke, hypertension and high cholesterol. The risk of other illnesses such as diabetes, kidney and gall bladder disorders, osteoarthritis, sleep apnea, respiratory problems and some cancers also increases when a person is overweight or obese.

Additional steps can be taken to prevent excessive weight gain. These include avoiding foods which are high in fat and sugar; reducing alcohol intake; avoiding stress; seeking medical attention for depression; and not smoking. In addition, physical activity should aim for 30 minutes of aerobic exercise every day. Lowering body weight by as little as 10 to 20 pounds can significantly decrease an individual’s health risks. Taking these steps can also improve high blood pressure and high cholesterol.

Illnesses and Diseases that Can Occur as a Result of Obesity

- **High Blood Pressure** (hypertension) – [see Session 8, Medical Screenings]
- **High Cholesterol** – [see Session 8, Medical Screenings]
- **Diabetes** – Being overweight may interfere with the body’s usage of insulin.
Stroke
There are several ways that obesity is linked to stroke. One of the primary risk factors for stroke is high blood pressure, and obesity increases the chance of one’s blood pressure being elevated. A report published in the Journal of the American Heart Association found that even when diabetes, high blood pressure and high cholesterol (all considered risk factors for stroke) are screened out, a high BMI remains a risk factor for stroke.

Heart Disease
Coronary artery (heart) disease is more prevalent in obese individuals for a number of reasons, including higher cholesterol and high blood pressure, and because the excess weight puts a strain on the heart by forcing it to work harder.

Osteoarthritis
Osteoarthritis can occur because the added fat puts a strain on the joints.

Some Cancers
The risk of breast, colon, endometrial, esophageal and kidney cancer increases in people who are overweight or obese. However, a 2002 study by the American Cancer Society found that only one percent of the population is aware of this risk. In fact, about one-third of cancer deaths are related to diet and level of activity. Esophageal cancer risk increases because excess abdominal fat can lead to acid reflux into the esophagus, which is associated with increased cancer risk. Obesity contributes to other cancers because it can increase circulating levels of hormones such as estrogen and insulin, which stimulate cancer growth.

Sleep Apnea
Obstructive sleep apnea is a condition where an individual has episodes of stopped breathing while sleeping. Excess fat in the neck may constrict the airway and create breathing problems.

Kidney Disorders
People who are obese are seven times more likely to develop kidney failure. What’s more, individuals who are somewhat overweight have a higher risk than those at normal weight.

Gall Bladder Disorders
Being obese puts one at a much higher risk of developing gall stones.

A Healthier Diet
Diet recommendations from MedlinePlus:
• Do not eat meat more than once a day. Fish and poultry are recommended instead of red or processed meats.
• Avoid frying food because food absorbs the fats from cooking oils, which increases dietary fat intake.
• Include adequate fiber in your diet. Fiber often makes you feel “full” without having to eat excess calories.
• Do not eat more than four eggs per week.
• Choose fresh fruit for desserts rather than cookies, cake or pudding.
• Cut down on salt.
• Too much of anything has its drawbacks. A well-balanced diet with creativity and variety is best.

Sources

http://win.niddk.nih.gov
www.cdc.gov/nccdphp/dnpa/obesity
www.cancer.org/docroot/NWS/content/update/NWS_1_1xU-Obesity_link-to_Cancer_Other_Chronic_Disease_Risk.asp

Diet, Physical Activity and Cancer: What’s the connection? by Dr. Tim Byers and Colleen Doyle MS RD (American Cancer Society)
14. Maintaining a Healthy Weight

**Objectives**

Learners will:

- Be able to give two reasons for maintaining a healthy weight.
- Know their own weight in pounds and height in feet inches.
- Recognize the words “underweight” “overweight” and “obese.”
- Be able to read a Body Mass Index (BMI) chart.
- Know their own weight status (underweight, normal, overweight or obese”).
- Name three kinds of exercise.

**Materials Needed**

Before the class, download Kate Singleton’s picture story “Snack Attack,” from www.cal.org/caela/esl_resources/Health/healthindex.html#Snack.

Board or chart paper
Markers
Pictures: “Healthy”; “Overweight”; “Obese” [Teacher only]
Waist size chart [15 copies]
BMI charts [15 copies]
Weight graphs (How’s your weight?) [15 copies]
Overhead of BMI chart
Scale
Yardstick or folding ruler
Ball (optional)
Masking tape
Computer with Internet access (optional)
Handouts: Copies of Kate Singleton’s picture story “Snack Attack,” from the web; 14a (Healthy-Overweight-Obese chart), 14b (kg/lb conversions), 14c (How tall are you?), 14d (BMI exercise)

**Activity 1**

**Picture Story**

Hand out Kate Singleton’s picture story “Snack Attack.”

1. Talk about each picture. Write some of the words.
3. Ask: “Do you know a story like this?” Give learners the opportunity to tell stories about weight problems — their own, or someone they know.
4. As a class or in small groups, write the story.

**Activity 2**

**Vocabulary**

1. Show a picture of an “Overweight” person. Ask: “What’s the problem?” [Probably learners will say “fat.” Introduce “overweight.” Write the word.]
2. Show a picture of “Healthy” weight, “Overweight” and “Obese.” Write the words on the board. [Note: If you need images, use pictures from magazines or newspapers, or do an image search online.] 
3. Hand out worksheet 14a, the chart with drawings of three people. Match: “Healthy Weight,” “Overweight” and “Obese.”

Note: If you have not done #7, Filling Out a Health History, you may need to pre-teach some vocabulary.
4. On worksheet 14a, you will see circles at the waist with numbers. Ask: “What do the numbers mean?” [Answer: Waist size in inches] If your waist is up to 33 inches, you are “normal” weight. If it is up to 34–45 inches, you are “overweight.” Larger than that is “obese.”

5. If you wish, hand out measuring tapes for learners to take their own waist measurements.

**Activity 3**

**Listening**

1. Put this chart on the board. Ask the learners to copy it. You may also wish to write the instruction: *Listen to the conversation. Fill in the chart.*

<table>
<thead>
<tr>
<th>Activity 3 Listening</th>
<th>Mr. Smith</th>
<th>Mrs. Brown</th>
<th>Ms. Lee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
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<td></td>
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<tr>
<td>Weight</td>
<td></td>
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<tr>
<td>Is this person overweight?</td>
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</tbody>
</table>

2. Play the audio CD. Ask learners to listen to the dialogues and fill in the chart. Repeat the listening as needed.

Nurse: You need to lose weight, Mr. Smith.

*M. Smith:* Me? I’m not fat.

Nurse: Here, let me show you this chart. Your height is 5’10”. Your weight is 200.

*M. Smith:* Oh — you are right. I guess I am overweight.

Nurse: Mrs. Brown, how tall are you?

*Mrs. Brown:* I’m five feet three inches.

Nurse: What is your weight?

*Mrs. Brown:* One hundred twelve pounds.

Nurse: Okay. That is a good weight for you.

Nurse: Okay, Ms. Lee, please stand on the scale. You are very tall! Five feet nine inches. Your weight is 164.

*Ms. Lee:* Is that okay for me?

Nurse: It’s a little bit overweight.

3. Check as a class. *Answer key:*

<table>
<thead>
<tr>
<th>Activity 3 Listening</th>
<th>Mr. Smith</th>
<th>Mrs. Brown</th>
<th>Ms. Lee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>5’10”</td>
<td>5’3”</td>
<td>5’9”</td>
</tr>
<tr>
<td>Weight</td>
<td>200</td>
<td>112</td>
<td>164</td>
</tr>
<tr>
<td>Is this person overweight?</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>
Activity 4
Healthy Weight

1. Write on the board: “healthy weight.” Ask: “Why is this important?” Elicit from learners why it is important to have a healthy weight. [Answers: prevent diabetes, high blood pressure, some cancers, heart problems, osteoporosis, arthritis]

2. Briefly discuss each condition. [Refer to Health History worksheets (session 7, included here) if learners don’t remember the terms.]

Activity 5
What’s your height and weight?

1. Do you know your weight in pounds?

2. Hand out the kilogram-to-pounds conversion chart (14b). To practice, call out some weights and ask learners to tell you the equivalent in pounds. [Note: 1 kg = 2.2 lbs]

3. Bring in a scale. Allow each person to take their own weight, and record it. [Note: Because weight may be a sensitive issue for some learners, allow them to keep their numbers private, if they prefer. But it is important that they do know both their height and weight numbers. This may be a good opportunity to introduce “private/privacy.” Ask: “Do you like to tell your weight?” Some may say “Yes, no problem.” Others may say “No.” Some people prefer to keep this information private. Give an example — use yourself and one other person (e.g., “I’ll tell you my weight — no problem. I weight 125 pounds. But my brother doesn’t like to tell his weight. He keeps it private.”) Of course, you can reverse the roles if you are uncomfortable telling something close to your realistic weight!]

4. Hand a yardstick to each group. As a group, have learners measure each other’s height. Make a group chart using worksheet 14c, “How tall are you?”

Optional Homework

Using the scale, encourage learners to find their own height and weight, and to write it down.

Activity 6
Body Mass Index

1. Using the overhead projector (if available), show the Body Mass Index (BMI) chart. Cover up the worksheet questions. [Note: If a projector is not available, hand out BMI charts and worksheet 14d.]

2. Ask: “What is this chart? What does it tell us?” [Elicit: This table tells us if we are overweight, underweight, normal weight or obese.]

3. Ask the class: “Max weighs 200 pounds and is 6 feet tall. How is his weight?” “Lisa is 200 pounds and five feet seven inches. How is her weight?”

4. Write the three examples below on the board. Ask learners to decide if each person is overweight, obese, etc., based on the BMI chart.

   • Person 1: 5’2”, 107 pounds
   • Person 2: 5’5”, 155 pounds
   • Person 3: 6’0”, 200 pounds

5. Ask learners to complete the examples on their worksheets (14d).

6. Discuss: “Did any of the answers surprise you?”
Optional Homework

Ask learners to find own weight status by using the BMI chart. Discuss their results, if it seems appropriate. Since weight can be a sensitive issue, you may want to ask a very general question, such as “Does anyone want to say anything?”

Activity 6
Weight in the United States

Information for the Teacher

- Percentage of adults age 20 years and older who are overweight or obese: 64%*
- Percentage of adults age 20 years and older who are obese: 30%*
- Percentage of adolescents age 12–19 years who are overweight: 15%
- Percentage of children age 6–11 years who are overweight: 15%


1. Hand out the weight graphs, “How’s your weight?”
2. Explain the first graph and discuss it.
3. Either alone or with a partner, ask learners to write two sentences about people in the United States. You may want to write some “sentences starters” on the board, or do one sentence together first. Examples:
   - Most people are ________.
   - Some children are ________.
   - A lot of people ________.

Refer to the BMI chart. Ask: “Look at the graph. Where would most people be on the BMI chart?”

Activity 7
Exercise

1. Ask: “Why is exercise important?” [Possible answers: maintain healthy weight; prevent osteoporosis; lower risk of heart disease, colon cancer and type 2 diabetes; control blood pressure; reduce feelings of depression and anxiety] Also, exercise helps you sleep better, experience reduced stress and feel more energetic.
2. Ask: “How much exercise do we need?” Elicit answers, then write on the board: “We should exercise for 30 minutes every day.”
4. Ask: “What can we do for exercise?” As a class or in small groups, brainstorm different activities that can be done for exercise. Write a list on the board. [Some ideas are listed below. You do not need to cover all of them!]

Ways to exercise:

- Go swimming.
- Join a gym.
- Play sports (tennis, basketball, badminton, table tennis, bowling, soccer, football).
- Do karate.
- Go for a run or jog.
- Ride a bicycle or skate.
- Do yoga.
- Take a dance class.
- Go dancing.
- Do gardening.
- Lift weights.
- Do Pilates.
- Do calisthenics.
**Assessment**

Administer the quiz on health. Note: Learners can use the BMI chart. Check as a class.

According to the U.S. Centers for Disease Control and Prevention, “There are 1,440 minutes every day. Schedule 30 of them for physical activity.”

**Ways to “sneak” exercise into your day:**

- Walk or bike to work, school or the store.
- Park the car farther away from your destination.
- Get on or off the bus or subway several blocks away.
- Take the stairs instead of the elevator or escalator.
- Play with children or pets.
- Take exercise breaks at work — walking or doing desk exercises — instead of taking cigarette or coffee breaks.
- Exercise while watching TV (Examples: Use hand weights, stationary bicycle, treadmill or stairclimber machine; or stretch.)
- Dance to music.
- Keep a pair of walking or running shoes in your car and at work.
- Find friends or family members to take walks with you.
- Walk to your errands.

(Adapted from the CDC’s “Make Physical Activity a Part of Your Life.”)

**Activity 8 Game**

1. You can do this either as a ball-toss game or as a question circle (one person asks the next). Write on the board: “Do you ____________?” “Yes, I do.” “No, I don’t.”

Throw the ball to someone and ask, “Do you swim?” For a lower-level class, first keep the question the same (e.g., continue asking “Do you swim?” to each learner). Higher-level classes can immediately vary the questions (e.g., “Do you swim?” “Do you dance?” “Do you play tennis?”). That person answers and throws the ball back to you. Ask a second person. After alternating between teacher and learners, you may want to do a second set, just learner-to-learner. Encourage a variety of questions about exercise. (“Do you swim?” “Do you ride a bicycle?” “Do you run?” etc.)

2. *A Challenging Variation:* Introduce “Every day,” “Once a week,” “3 times a week,” “Once in a while” and “Never.” Repeat the activity with the question, “How often do you__________?” Write the question and possible answers on the board.

**Technology**

If a computer with Internet access is available, calculate the number of calories based on BMI, using the calculator at: [www.mayoclinic.com/health/calorie-calculator/NU00598#resulttext](http://www.mayoclinic.com/health/calorie-calculator/NU00598#resulttext).

Ask learners to enter height and weight, and to calculate actual caloric intake. Then, re-enter the information using “ideal weight.” To obtain an “ideal” weight, choose a healthy weight within the BMI.
Write the correct words under the picture: Overweight, Obese, Healthy Weight

Picture adapted from the FDA consumer magazine, May-June 2004
**HOW MUCH DO YOU WEIGH?**

<table>
<thead>
<tr>
<th>KILOGRAMS</th>
<th>POUNDS</th>
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<tbody>
<tr>
<td>48</td>
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<td>115</td>
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<td>120</td>
<td>265</td>
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</table>

1 kilogram = 2.2 pounds

*Example:* John weighs 68 kilograms. How many pounds does he weigh?

\[ 68 \times 2.2 = 150 \]

John weighs 150 pounds.
**How tall are you?**

I am ______________ feet ___________ inches.

<table>
<thead>
<tr>
<th>Classmate’s name</th>
<th>Height</th>
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<tbody>
<tr>
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<tr>
<td></td>
<td>inches</td>
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</tbody>
</table>
Name____________________________________  Date________________

Check the correct answers.
Use the BMI Chart to help you.

____________________________________________________________________________________

Cara is five feet four inches tall. Her weight is 132.
She is…
underweight   □     healthy weight   □     overweight   □     obese   □

Sam is 6 feet tall. His weight is 130 pounds.
He is…
underweight   □     healthy weight         □     overweight   □     obese   □

Kyung is five feet five inches tall. Her weight is 155.
She is…
underweight   □     healthy weight         □     overweight   □     obese   □

Joe is 5’9” tall. His weight is 205.
He is…
underweight   □     healthy weight         □     overweight   □     obese   □

Monica is five feet five inches tall. Her weight is 185.
She is…
underweight   □     healthy weight         □     overweight   □     obese   □

I am ____________________ tall.  My weight is ______________.
I am…
underweight   □     healthy weight         □     overweight   □     obese   □

____________________________________________________________________________________

Visit this website to find your actual BMI!

http://www.shapeup.org/bodylab/frmst.html    or    http://www.dr-bob.org/tips/bmi.html

Adapted from http://www.shapeup.org/bodylab/tools/bmi2.php
Check the correct answers. 
Use the BMI Chart to help you.

Cara is five feet four inches tall. Her weight is 132. 
She is…
underweight ☐ healthy weight ☐ overweight ☐ obese ☐

Sam is 6 feet tall. His weight is 130 pounds. 
He is…
underweight ☐ healthy weight ☐ overweight ☐ obese ☐

Kyung is five feet five inches tall. Her weight is 155. 
She is…
underweight ☐ healthy weight ☐ overweight ☐ obese ☐

Joe is 5’9” tall. His weight is 205. 
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Monica is five feet five inches tall. Her weight is 185. 
She is…
underweight ☐ healthy weight ☐ overweight ☐ obese ☐

I am ________________________ tall. My weight is ______________.
I am…
underweight ☐ healthy weight ☐ overweight ☐ obese ☐

Visit this website to find your actual BMI!

http://www.shapeup.org/bodylab/frmst.html or http://www.dr-bob.org/tips/bmi.html

Adapted from http://www.shapeup.org/bodylab/tools/bmi2.php
How’s Your Weight?

<table>
<thead>
<tr>
<th>Height</th>
<th>Weight (lb.)</th>
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<tbody>
<tr>
<td>4'10&quot;</td>
<td>91 96 100 105 110 115 119 124 129 134 138 143 167 191</td>
</tr>
<tr>
<td>4'11&quot;</td>
<td>94 99 104 109 114 119 124 128 133 138 143 148 173 198</td>
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<tr>
<td>5'0&quot;</td>
<td>97 102 107 112 118 123 128 133 138 143 148 153 179 204</td>
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<td>148 155 163 171 179 186 194 202 210 218 225 233 272 311</td>
</tr>
<tr>
<td>6'3&quot;</td>
<td>152 160 168 176 184 192 200 208 216 224 232 240 279 319</td>
</tr>
</tbody>
</table>

*Body Mass Index

<table>
<thead>
<tr>
<th>Key</th>
</tr>
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<tbody>
<tr>
<td><strong>Less than 18.5</strong>  Underweight</td>
</tr>
<tr>
<td><strong>18.5-24.9</strong>       Normal Weight</td>
</tr>
<tr>
<td><strong>25-29</strong>           Overweight</td>
</tr>
<tr>
<td><strong>30 or more</strong>      Obese</td>
</tr>
</tbody>
</table>

Adapted from http://www.shapeup.org/bodylab/tools/bmi2.php
How’s your weight?

Adults in the US

- 36% normal weight
- 34% overweight
- 30% obese

Children in the US

- Percent of children who are overweight by age and year:
  - Age 6-11
  - Age 12 - 19

Source: US Dept. Of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics