

Delaware General Health District (DGHD)
4th Grade Obesity and Disease Prevention Module – Class #2
(adapted from: CATCH Go for Health Series, 1998 and Just for Kids, 2003)

**LESSON PLAN: Physical Activity Prevents Disease
 Using Natural Body Signals for Eating**

INTRODUCTION & CLASS BRAINSTORM (5 -10 min)

Explain:

This is the second class on nutrition and fitness to help prevent overweight/obesity and disease. Students will learn about two healthy habits:

- every day physical activities called “GO” activities
- identifying and listening to body signals for hunger and fullness

These two healthy habits can help students stay at a healthy weight for life and help prevent disease.

Families can help prevent high blood pressure, high cholesterol and heart disease, strokes, Type 2 diabetes and some cancers by:

- staying at a healthy weight for height for a lifetime
- being physically active every day, spending less time sitting in front of TV/computer screens
- listening to body signals for hunger and fullness
- making healthy food choices every day

Class Brainstorm

ASK: How does physical activity help your body be fit?

- makes the heart beat stronger
- makes lungs stronger, putting more oxygen into your body
- makes muscles stronger
- helps digestion
- helps prevent overweight/obesity by burning the calories from the food you eat which helps your body naturally stay at a healthy weight
- certain types of physical activity (weight bearing) help your bones grow bigger and stronger
- regular physical activity gives the body more energy to look and feel better from the inside out

Explain – “GO” activities are physical activities that have the whole body moving versus more stationery activities like sitting or laying to watch TV, sitting to play video or computer games, taking the elevator instead of the stairs, etc.

ASK: What are some examples of GO activities?

(possible answers - walking, marching, hiking, climbing stairs, running, jumping, skipping, dancing, swimming, biking, in-line skating, soccer, basketball, gymnastics, skiing, other sports, etc.)

Activity #1: Physical Activity and Body Cues (15 min)

Purpose: Students identify their body cues as they participate in classroom modified GO activities while they review identifying several GO and WHOA foods.

Materials needed:

1 – grocery bag	Body Cues Master (make into transparency)
2 clip art GO foods	Body Cues Student Handout - copied
1 clip art WHOA food	Body Signals Student Handout
watch or clock w/second hand	Extra Credit Assignment Handout - copied

1. Place on the floor in the front of the classroom a grocery bag containing the 3 pictures of the GO (2) and WHOA (1) foods included with this lesson plan. Instruct the students to stand by their desk facing the front of the room and listen closely so they all can hear and follow the instructor's directions. Tell the students that although the class is going to do some modified physical activity in the classroom, they need to be respectful, not bump into their desk or other students and they need to stay quiet enough to be able to hear ongoing instructions.
2. Select a student volunteer and tell them to go up to the front of the room and pick one food picture out of the grocery bag. Have the class quickly decide if the picture is either a GO food or a WHOA food. If the food is correctly identified as a GO food have the students do jumping in place with arms down at their sides for 15 seconds. If the food is correctly identified as a WHOA food, have the students march in place for 15 seconds. At the end of the first 15 seconds, quickly select another student volunteer to pick another food picture from the grocery bag and again have the class identify the food as either GO or WHOA and repeat another 15 seconds of either jumping or marching in place. Repeat this routine with the last of the 3 food pictures. Then have the students march in place one last time getting faster and faster for one more minute.
3. Tell the students to stop and sit down.
4. Ask the students to identify how they began to feel and to describe some things that happened in their body as they did more and more of the last physical activity.

(heart beating faster and faster, breathing harder, face feeling warm, started sweating)
5. Pass out the Body Cues Handout to each student and project the Body Cues Transparency. Instruct the students to write down the body cues on their handout as they are discussed on the transparency.

6. Use the Body Cues Transparency and explain that many of the body feelings they've identified are called "Body Cues." Point to and explain each body cue on the transparency:

- Warm face: happens because being active has caused the body temperature to rise.
- Faster heartbeat: the heart beats faster because during GO activities the heart must pump more blood to all the muscles and moving body parts. This makes the heart stronger.
- Breathing harder: the lungs work harder to take in more air for more oxygen that is also required for all the muscles and moving body parts.
- Sweating: the body can begin to perspire to help cool down body temperature.

These body cues tell us that we are doing GO activities long enough to be the most healthy for the body. These body cues are all natural, normal, healthy body signals. Often these body cues happen after being physically active for awhile and not right as we start GO activities. An activity is considered a GO activity and healthy for the body when it is done for at least 10 -15 minutes without stopping, 30 minutes without stopping is even healthier for our bodies.

7. ASK: Is it likely that any of these body cues would happen while we sit and watch TV or play video games? NO, not likely.

Explain: To be healthy, to prevent disease and to prevent obesity, kids and their families should do some GO activity (or exercise) outside of school and work for 30 minutes or more every day.

Activity #2 – Body Signals for Eating (5 - 10 min)

Explain: We've just learned about natural body signals that tell us when we're doing a GO activity long enough for it to help our bodies prevent overweight, obesity and disease. Now we're going to talk about our natural body signals that can help us know when and how much to eat to stay at a healthy weight for life—**IF WE PAY ATTENTION TO THESE SIGNALS ALL OUR LIFE!**

ASK: How many of you have stomach growling as a body signal for hunger?

Have the class look around and see that most of the students will have their hands raised.

Explain: Stomach growling is the most common body signal for hunger for human beings. But often as we grow up into adults, we get out of touch with many of our natural body signals, not because they are no longer there, but often because as we grow up we stop listening and paying attention to them.

ASK: What other body signals have you experienced for hunger?

After each student shares a new body signal, ask the rest of the class to raise their hands if they too have experienced that newly mentioned body signal.

(possible other body signals---empty stomach feeling, stomach ache, hole in the stomach feeling, headache, nausea, tired, weak feeling, feeling faint or ready to pass out)

STUDENT TIP: Give the students this tip--if you've gone past growling and have a headache, or feel weak, tired or faint, that's your body signaling you that you've gone way past the time when it needed food! It's important for these students to start paying more attention to their body signals and start listening closely for their first body signals for hunger and eat then or soon after.

ASK: Have any of you ever eaten food when you have no body signals for hunger and you know you're not hungry?

The teacher should raise his/her hand too. This is a common experience for all adults and can help students to admit they have experienced this common behavior as well. Point out to the class the number of hands that are raised---it will likely be 100% of the students plus the teacher.

ASK: Of those who raised your hands, do any of you know what you were feeling that caused you to eat even though you had no body signal for hunger?

Have students share those feelings.

(possible answers – BORED—often the #1 feeling, tired, thirsty, sad, angry, happy, calm, etc.)

Why do human beings eat when they're not hungry or keep eating after they already feel full?

(food looks too good to not eat it, others are eating, we're told it's time to eat or we are expected to eat by the clock – lunchtime, eating makes us feel better, we're told to clean our plate, etc.)

Explain: All of these reasons we've mentioned (bored, tired, sad, angry, happy, etc.) are not our natural body signals for hunger. If we get into the habit of eating for all these reasons that aren't natural body signals for hunger, we can develop unhealthy eating habits and overeat.

We want you to learn healthy eating habits now instead of learning unhealthy eating habits. Our body signals for hunger and fullness are our body's way of telling us what it needs naturally. If we pay attention to our own body signals, both for hunger and for feeling full we can eat when we

need food and stop eating when our body has had enough food. This is the best eating habit ever to develop!

Activity #3 Student Brainstorm – Brainstorm the Boredom Away (5–10 min)

Explain: Bridge back and mention again the example of feeling bored and eating without body signals for hunger to “fix” the feeling of boredom. Reinforce that when we start that habit (using food to fix a negative feeling) we’re using the food to fix a problem and feeding our body when it doesn’t need food. That becomes a form of “overeating” and a lifetime unhealthy habit that can lead to weight gain and carrying more weight than is healthy for a person’s height. Tell the students that the whole class is going to do a class brainstorm and the teacher will record their ideas and make a list that will be copied and handed back out to the students to take home and hang up in their room or house.

Lead the students in a brainstorm on the following:

ASK: When you feel bored and your body is not signaling you for hunger, what else can you do (other than food) to fix your boredom?

Record the class answers/ideas on an overhead transparency or easel pad large enough for all students to be able to see all of the ideas.

TIP: Some groups of students will need to be prompted or led toward more physically active ideas. The more physically active ideas they generate for the class “list” that the teacher will compile, copy and distribute to the students to take home, the better!

Compile all of the student ideas and type up a master student list from all classes. Get the students involved in creating a title for this student handout list. Duplicate and hand out the list at the next class for the students to take home and hang up as a reminder the next time they get BORED!

