

## Ohio SNAP-Ed Adult & Teen Programs

### Food In, Activity Out: The Energy Balance Equation

**Task Topic:** MyPlate

**Task Title:** Food In, Activity Out: The Energy Balance Equation

**Teaching Message(s):**

- ☒ Use food labels to make better choices.
- ☒ Use a smaller plate at mealtime to help with portion control.
- ☒ Be physically active for at least 30 minutes most days of the week.

**Resources:** Adapted from ChooseMyPlate.gov (USDA), Your Heart Your Life (NHLBI), National Dairy Council

#### Objectives for the Task:

1. Explain the concept of energy balance.
2. Name at least 2 benefits of physical activity.

#### Materials Needed for the Task (including Handouts):

- Food pairings, printed in color on card stock (print out 2-sided, flip on short edge)

#### General Materials List:

- Flip chart paper
- Thought box
- Highlighters
- VOICE principles
- Post-it notes
- Markers
- Masking tape
- Participant evaluation forms
- Index cards
- Pens
- Name tags

#### Key Points to Review:

- Introduce yourself. Give brief description of the program (program name, length of sessions, duration of program).
- Include your purpose as the facilitator (i.e. to introduce ideas that are supported by research, to give them the tools to make informed decisions about areas that affect their health & nutritional needs, and to identify topics that might be covered based on the curricula used in the program).
- Review the V.O.I.C.E. Principles.
- Ask participants to sign in on the SNAP-Ed sign-in sheet.
- Remember to pass out the appropriate participant evaluation form at the end of the session, making sure to read the questions out loud to the participants.



**Transition:**

Last time we met, we learned about .... Who would like to share ...?

Today, we are going to learn about balancing the food you eat with healthy increases in physical activity. Weight control is one benefit of physical activity. Physical activity can strengthen your heart, decrease your blood pressure, and lower your blood sugar levels if you have diabetes. It can also make you feel better by reducing stress, improving your self-esteem, and making you feel more energetic. People who get regular activity also tend to sleep better at night. Let's walk in place for a few minutes as we begin today's lesson.

*Instruct participants to stand up and move their chairs aside. Walk in place at an easy pace for 2-3 minutes.*

How many of you notice changes in your body: breathing, heart rate, how warm you are?

*Physical activity guidelines can be found at the following websites:*

- Office of Disease Prevention and Health Promotion: [www.health.gov/paguidelines/](http://www.health.gov/paguidelines/)
- CDC: <http://www.cdc.gov/physicalactivity/everyone/guidelines/index.html>
- President's Council on Fitness, Sports, and Nutrition: [www.fitness.gov/being-active/physical-activity-guidelines-for-Americans/](http://www.fitness.gov/being-active/physical-activity-guidelines-for-Americans/)

Anchor

You may have heard the word "balance" as it relates to the food you eat and the energy you use. Let's take turns discussing what "balance" means to each of us. I'll write down some notes from our discussion for us to look at.

*Write down key words and important concepts on flip chart paper.*

Add

We get energy from what we eat and drink. The amount of energy in food is measured by calories. Calories come from the protein, carbohydrate, and fat in a food. All available energy comes from foods we eat and drink. That is called "Energy In." We use that energy to do just about everything from the time we wake up to the time we go to sleep. We even use some energy when we're sleeping!

When we use calories/energy to work and play, it's called burning the calories. That is "Energy Out." Energy In and Energy Out don't have to balance perfectly every day, but it is important to keep our energy balanced over time. Being in energy balance promotes health. When we burn about the same amount of energy that we eat, we achieve energy balance. Eating more calories than you burn over time puts you out of energy balance. Eating fewer calories than you burn over time also puts you out of energy balance.

It is important that physical activity makes us work hard enough to increase our heart rate. We breathe a little harder and we may get sweaty. This is how you can tell if you're being active enough. Different activities will burn different amounts of calories. For instance,



running burns more calories than walking. Walking at a 4 mile-an-hour pace burns more calories than walking at a 3-mile-an-hour pace. Regardless of the activity you choose, adults should aim for 30 minutes of activity daily, while children need 60 minutes. In addition to helping to maintain energy balance, there are many benefits to being physically active each day.

Who can recall a few benefits of physical activity that we talked about at the beginning of this lesson? (*Better sleep, more energy, weight maintenance, healthy heart & lungs, etc.*)

### Apply

We discussed that in order to be in energy balance, the calories we eat should be offset by the activity we do. Today's oversized portions, coupled with calorie-laden restaurant meals, can make it difficult to achieve energy balance. Let's look at some ways that portions add calories, as well as how much activity one would need to do to burn off those additional calories, in order to maintain balance.

*Instruct participants to direct their attention to the front of the room.*

We are going to look at a few examples of foods. Some show larger-sized portions; others show restaurant preparation. For each of these, I would like a volunteer to guess how many calories are in each food. Then I'll ask another volunteer to guess how much activity would be required in order to burn those additional calories.

*Hold up the first food pairing. Tell the participants how many calories are in the first food. Ask a participant to guess how many calories are in the second food. Then ask another participant to guess how long they would have to do the specified activity in order to burn off the additional calories.*

What surprised you about this activity? How does this influence the way you think about energy balance?

### Away

Now it's your turn to think about how you can incorporate a little extra activity into your week. Write down one activity you would like to include into your routine over the next week. Think about when you will do the activity (day and time) and how long you will spend doing it. You can include your family or use it as quality time to yourself. We will discuss your experiences next week.

### **Facilitator's Notes:**



**Facilitator's Checklist:**

- ☐ Have I gathered all of the pertinent materials needed for the lesson?
- ☐ Did I spend the requisite amount of time covering each targeted message?
- ☐ Did I apply the principles of adult learning to my program?
- ☐ Did I create a comfortable and functional learning atmosphere?
- ☐ Did I fill out a Program Log with the necessary program information?
- ☐ Did I ensure that all participants signed the sign-in sheet?
- ☐ Did I read the survey instrument out loud to the participants?
- ☐ Did I collect all requisite survey instruments needed for today's lesson?

