

rev*it*up

Lesson 6

Veg Out!



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**



RUTGERS®

Lesson 6: Veg Out!

Activity Creators: Het Desai-Shah, Gaspar Clacer, Neeka Tabatabaei, Xinyi Li and Debra M. Palmer-Keenan

Lesson Plan Developers: Gemma Bastian, Het Desai-Shah and Debra M. Palmer-Keenan

Core Curriculum Area: Dietary Quality, Physical Activity

Objectives

Teens taking this class will:

1. Interpret the serving size and calorie info from Nutrition Facts Labels.
2. Compare the number of calories and volume of less healthy snack foods they often choose to that of fresh veggies.
3. Use interval training to be more active.

Behavioral Focus

This lesson prompts teens to:

1. Consider choosing veggie snacks over less healthy snack foods, like chips, candy, and sweets.
2. Do an interval training video they can repeat at home.
3. Try a tasty, veggie-based snack they can make at home.

Background

Is snacking a problem?

Maybe yes, maybe no. Research suggests that there may be both good and bad things about snacking.¹ For example, snacking can help us feel full in between meals. Yet, snacking too much can lead to weight gain. Whether a snack is good or bad may depend on things like:

- If the snack is high or low in calories, sugar, fat, and salt;
- The snack's portion size;
- When the snack is eaten, such as during the day vs. late at night; and
- The genetics of the snacker.

Some of these things, like genetics, we can not control. But we can teach some of these things to teens to help them make better snack choices.

Why should teens have a lesson on snacking?

About 40% of teens eat 3 or more snacks a day.² Teens who eat more snacks were found to eat more calories, and have a less healthy diet.³ This is probably due to the snacks teens like to eat, such as chips, candy, and sweets. In one study done of snacks purchased from

bodegas in a low-income area in Philadelphia, PA,⁴ the snacks teens most often bought were:

- Sugary drinks
- Chips
- Items like sandwiches and bagels from a deli counter
- Baked goods
- Candy
- Ice cream

Fruits and vegetables made up only about 2% of the foods they bought. If you know any teens, you may agree that these findings sound about right!

Why promote just veggies instead of other healthy snacks?

Rev It Up! does teach teens about other healthy snacks in *C-Store Trivia* and *Mission Possible!* (Lessons 3 and 9) But we focus on veggies in this lesson for a few reasons:

1. Teens do not eat their veggies! Most teens should eat 2 ½ to 3 ½ cups of veggies each day.⁵ But the average high schooler only eats about 1 cup per day.⁶ That's about 12 baby carrots! In fact, only 2% of teens eat the right amount of veggies at all.⁷
2. Veggies are very good for you! They are low in calories, and they are full of nutrients teens need like potassium, fiber, folate, and Vitamins A and C.⁸ Veggies are also rich in **phytochemicals** (FY-toe-kem-ih-culls). These chemicals are ONLY found in plant foods. They can prevent cell damage that can cause cancer or heart disease.⁹
3. Veggies have lots of fiber that can keep teens regular and help them lower their risk for diseases later in life.¹⁰
4. Veggies are also one of the best food groups for a sustainable diet.¹¹ Since the teens already learned about the "Power of plants!" in *Sustainability Dash* they may be more interested in this lesson. Make sure you have taught Lesson 5 before this one!

How does the *Veg Out!* game work?

In *Veg Out!*, teens are shocked to see how many veggies they would have to eat to match the calories of their favorite snacks. The numbers get quite huge and the pictures get quite silly! The goal of the lesson is not for teens to think they need to eat hundreds of cucumber slices or celery sticks each day. Instead, the educator should stress that veggies help them feel full while eating less and providing more nutrition. It's a win-win-win!

Works Cited

1. Miller R, Benelam B, Stanner SA, Buttriss JL. Is snacking good or bad for health: An overview. *Nutrition Bulletin*. 2013;38(3):302-322. doi:10.1111/nbu.12042
2. USDA Agricultural Research Service. Snacks: Distribution of Snack Occasions, by Gender and Age, What We Eat in America, NHANES 2017-2018. Accessed February 21, 2022. ars.usda.gov/ARSUserFiles/80400530/pdf/1718/Table_29_DSO_GEN_17.pdf
3. Evans EW, Jacques PF, Dallal GE, Sachek J, Must A. The role of eating frequency on total energy intake and diet quality in a low-income, racially diverse sample of schoolchildren. *Public Health Nutr*. Feb 2015;18(3):474-81. doi:10.1017/S1368980014000470
4. Lent MR, Vander Veur S, Mallya G, et al. Corner store purchases made by adults, adolescents and children: items, nutritional characteristics and amount spent. *Public Health Nutr*. Jun 2015;18(9):1706-12. doi:10.1017/S1368980014001670
5. U.S. Department of Agriculture, U.S. Department of Health and Human Services. 2020-2025 Dietary Guidelines for Americans. Accessed July 13, 2022. dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf
6. USDA Agricultural Research Service. Food Patterns Equivalents Intakes from Food: Mean Amounts Consumed per Individual, by Gender and Age, What We Eat in America, NHANES 2017-2018. Accessed February 21, 2022. ars.usda.gov/ARSUserFiles/80400530/pdf/fped/Table_1_FPED_GEN_1718.pdf
7. Moore LV, Thompson FE, Demissie Z. Percentage of Youth Meeting Federal Fruit and Vegetable Intake Recommendations, Youth Risk Behavior Surveillance System, United States and 33 States, 2013. *J Acad Nutr Diet*. Apr 2017;117(4):545-553 e3. doi:10.1016/j.jand.2016.10.012
8. USDA Center for Nutrition Policy and Promotion. Vegetables. Accessed February 21, 2022. myplate.gov/eat-healthy/vegetables
9. Rodriguez-Casado A. The Health Potential of Fruits and Vegetables Phytochemicals: Notable Examples. *Crit Rev Food Sci Nutr*. May 18 2016;56(7):1097-107. doi:10.1080/10408398.2012.755149
10. Slavin JL, Lloyd B. Health benefits of fruits and vegetables. *Adv Nutr*. Jul 1 2012;3(4):506-16. doi:10.3945/an.112.002154
11. Poore J, Nemecek T. Reducing food's environmental impacts through producers and consumers. *Science*. Jun 1 2018;360(6392):987-992. doi:10.1126/science.aag0216

Materials Needed

Activity 1: Veg Out!

- ☐ Computer, projector, and speakers (or) SMART Board®
- ☐ Veg Out! Presentation
- ☐ 6 snack packages (See “Prepare to Teach”)
- ☐ A batch of Beanie Brownies, or a veggie snack that you have a recipe for of your choice. Maybe something made from a veggie that is in season!
- ☐ Paper condiment cups, 1 per teen
- ☐ Napkins, 1 per teen
- ☐ Beanie Brownies Recipe, 1 per teen (or recipe of another veggie snack)

Activity 2: Walk Indoors!

- ☐ Computer, projector, and speakers (or) SMART Board® (or) TV and DVD player
- ☐ “Walk Indoors! with Leslie Sansone” Video 4: “Interval Training” available at efnep.rutgers.edu/efnepContent.php?l=eg&c=Exercisevideos.

Prepare to Teach

1. Download the *Veg Out!* Presentation on a flash drive.
2. To choose the **snacks** for the game, go to bodegas, convenience stores, corner stores or vending machines near the site and pick up snacks the teens often choose. To figure out what these snacks may be:
 - Ask the site leader.
 - Observe the teens at or around the site.
 - Look at what is offered in school vending machines or at the school store.
 - Ask the teens before you start or end one of the other lessons.
 - Stop by local stores when teens are there to see which snacks they buy.
 - Ask the people who work in the stores which snacks local teens most often buy.

Do not use the same snacks year after year. They may change.

Some snacks we have used in the past are Takis®, Cheetos®, Hostess® cakes, Cosmic Brownies®, Oreos®, potato chips, Sour Patch Kids®, gummy worms, fruit snacks, pretzels, and Andy Capp’s Hot Fries®.

3. Check to see how many servings are in each snack and multiply by the number of calories per serving. Aim for snacks that are 300-1,000 calories for the **entire package**. The entire package is the amount teens most often eat in 1 sitting.

4. Open the snacks and remove the food so you are left with an empty package. Number the 6 snacks you have chosen with a thick black marker or by using stickers.
5. Download the Veggie Pictures. For each snack, find the picture of a different veggie snack that most closely matches the total number of calories in the snack package. Use the picture and the number of veggies in the picture to edit the slides in the Veg Out! Presentation.

Steps 2-5 can be tricky! For more help, consult the Veg Out! Educator Instructions.

6. Download and print the Beanie Brownies recipes.

If your program has its own recipes, you may use another veggie snack recipe instead. The teens in our pilot lessons really enjoyed the Beanie Brownies!

7. Before the lesson, prepare the Beanie Brownies to provide each teen in your class with a small sample snack.

Practice until the activity lengths are:

- **Introduction:** 2 minutes
- **Veg Out!:** 15 minutes
- **Walk Indoors!:** 15 minutes
- **Wrap up:** 3 minutes

This will allow for the lesson to be taught in 35 minutes.

Lesson Plan

Set-up

1. Remind the teacher that you will need his/her help passing out the Beanie Brownie samples (or the snack you chose instead) at the end of the game today.
2. Set up the computer and projector or SMART Board® and load the *Veg Out!* Presentation.
3. Test the “Walk Indoors!” video. Cue it up to 0:47 so it is past the tips.

There is not enough time to read the video tips with the teens unless you have more than 45 minutes for the class.

4. Set out the snack packages so you are ready to give them to the teens for the game.
5. Put the snack samples in a spot where they will not distract the teens, but the site leader can get to them and pass them out when it is time to do so.

6. Set the recipes where it will be easy for the teens to grab them on the way out the door.

Introduction (2 minutes)

1. Greet the teens as they walk in.
2. Ask if anyone has made any planet-healthy choices like making a plant-based meal or trying a locally grown fruit or veggie since the last time you were there. Take a few answers from the teens.

Activity 1: Veg Out! (15 minutes)

1. Start the lesson with Slide 1 open. Tell the teens that today you will be talking about snacks, and how veggies can be a great snack option.
2. Move on to Slide 2. Ask the teens why they think veggies are such great snacks. Take some answers, then click through to reveal the answers on the slide.
 - Veggies are good for the planet! Tell them to remember “The Power of Plants!” from last time.
 - Veggies fill you up with fewer calories. They have much less sugar and fat than many other snacks, so they will be less likely to overeat them than if they had a snack like chips or candy.
 - Veggies are very good for you! Veggies help keep you regular; they can help keep you from feeling hungry; and they can even help keep you from getting heart disease, diabetes, and cancer in the future.
3. Move to Slide 3. Say, “Although veggies are great snacks, a lot of times we choose other snacks, like chips, cookies, and candy.” Let them know that today they will play a game to show how much they can save by switching to veggie snacks – both in calories and in dollars!
4. Split the teens into teams of 4-6 teens each. You should have 2-5 teams in total.
5. Pass out the snack packages to the teams. Keep Snack #1 for yourself.

It is okay if the teams don't have the same number of snack packages!

6. Move to Slide 4. Hold up the Snack #1 package. Then, show them how to figure out the number of calories in the whole package.
 - Remember: (calories/per serving) * (number of servings) = Total Calories
 - Example: (400 calories/serving) * (2 servings) = 800 calories
7. Ask the teens, “How many cherry tomatoes could you eat for the same number of calories you get

if you eat this snack?” Ask them to raise their hands when they have an answer. Give the teams a moment to talk with their team members.

- If they are taking too long, start counting down from 5: “5 – 4 – 3 – 2 – 1!”
8. Call on each team to tell the class their answers. Then, move to Slide 5 to reveal the answer. Give the team with the closest guess 1 point.
 - Say, “Who thinks they could eat all those cherry tomatoes at once? I sure can’t! Yet, how many times have you eaten a whole package of (Snack #1) in one sitting and still felt hungry? When you have veggies as snacks, you can fill up on fewer calories and get more nutrients too!”
 9. Tell the teams it is their turn to figure out how many calories are in each of their snacks. Walk around the room and make sure their answers are right. Help them if they need it.
 10. Refocus the class.
 11. When they are finished, move to Slide 6. Have the team with Snack #2 show it to the rest of the class and tell the class how many calories are in their snack. Have the teams talk among their members and decide how many cucumber slices they could eat for the same number of calories as Snack #2. As above, countdown if they are taking too long. Then call on each team to tell the class their answers. Award a point to the team who was closest.
 12. Continue this activity for the rest of the snacks. Keep stressing that they might never eat this many veggies, but they CAN eat as many as they want until they are full for fewer calories yet with so many more nutrients.

A key point of this lesson is that veggie snacks are a smart choice versus the snack foods teens usually eat. Keep stressing the cons of the unhealthy snacks. Here are examples of things you can say that are not about the calories/sugar/salt:

- Imagine eating a bag of spicy chips during this period, then going to make out with your girlfriend/boyfriend at your locker later with that dragon breath! Gross! Veggies will not do that!
- Who else has had these gummy candies stuck in their teeth before? And with braces – what a nightmare! Luckily there are many veggies that are braces-friendly.
- The worst thing about this bag of chips? It’s 90% air! You pay all this money for air! That upcharge does not exist for veggies.

13. After you go through all the snacks, declare the team with the most points as the winner. Give them a round of applause.
14. Move to Slide 17. Tell the teens that it is important to eat veggies of various colors. Different colored veggies contain different vitamins and minerals that keep you healthy!
15. Cue the site leader to pass out the Beanie Brownie samples. Tell them that you made special brownies – **no, not like that!** – with a secret veggie ingredient. See if they can guess what the veggie ingredient is! While they are being passed out, tell the teens some other veggie tips:
 - Although a lot of less healthy snacks are easy to buy in vending machines or corner stores, veggies can be easy to carry. By using sandwich baggies or plastic containers from the dollar store, they can bring veggie snacks to school, sports practice, or anywhere on the go!
 - Just like there are so many kinds of snacks out there, there are also many kinds of veggies! If you don't like some of them, that's okay. Don't let that stop you from trying others.

Let the teens know of any possible food allergens in whichever snack you bring for them. Our Beanie Brownies recipe contains wheat (and thus, gluten too).

16. Move to Slide 18. Tell the teens that there are tons more veggie recipes on efnep.rutgers.edu. Also, let them know that there are recipes for today's snack by the door if they want to take one when class is over.

Activity 2: Walk Indoors! (15 minutes)

1. Tell the class that they will be doing more MVPA – Moderate-to-Vigorous Physical Activity today!
 - Tell them that this time, they will be trying “interval training.” Explain that the video has short bouts of high intensity, followed by long,

slow bouts. Tell the teens that research shows that interval training can be just as good as doing harder workouts, like jogging, and they can be easier for some people to do!

2. Ask them to spread out and find a place to stand. Cue the site leader to start the video.
3. Like the first lesson, walk around and try to inspire the teens and urge them on. Be silly! Get them excited about being active. If some of the teens are still stubborn, ask the site leader for help. By Lesson 6 this is not often the case.
4. After the video is over, clap and tell them they did a great job. If the class period is too short, keep going with the video until the bell rings.
5. Remind the teens that the videos can be found on efnep.rutgers.edu.

Wrap up (3 minutes)

1. Ask the teens what they learned today and if they are going to try a veggie snack this week.
2. Let them know that next time, you will be talking about portion sizes and how to take control of portions!

After the lesson is over, remind the site leader what her/his role will be for the next lesson. You may want to send an email like this:

I hope you and your class have been “vegging out” with some great veggie snacks since our lesson! Weren't those brownies (or other snack) so good? The next time I come, we will be learning about portion sizes. I will have slides, but I will be able to run them myself. I may need your help hanging up posters before class, however. Also, we'll be doing the last segment of the Walking Indoors video! I'll see you then!



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**



RUTGERS®

This work is supported by the Expanded Food and Nutrition Education Program from the USDA National Institute of Food and Agriculture. USDA is an equal opportunity provider.

SDSU Extension is an equal opportunity provider and employer in accordance with the nondiscrimination policies of South Dakota State University, the South Dakota Board of Regents and the United States Department of Agriculture.

Learn more at extension.sdstate.edu.

© 2025, South Dakota Board of Regents