

4-H After-School Program: Bloco Drum and Dance!

Part 10: Making Good Nutrition and Exercise Part of the Program

EVELYN L. CONKLIN-GINOP, 4-H Youth Development Advisor, University of California Cooperative Extension, Sonoma County; **SHARON K. JUNGE**, Acting State Director of 4-H Youth Development; and **KARYN PULLEY**, 4-H Youth Development Volunteer, UCCE, Sonoma County.

Curriculum Overview

This is part 10 of an 11-part series on planning, developing, and coordinating a 4-H drum and dance after-school program. The series is based on the successes of the Sonoma County 4-H Drum and Dance Program, an experiential (hands-on, learn-by-doing) education effort sponsored by Sonoma County 4-H in partnership with the Windsor School District. The program capitalizes on the positive group experiences of Brazilian Bloco drumming and dance to help youth build self-esteem, embrace personal discipline, develop commitment to their community, and build musical skills. Besides attending regular practices and 4-H meetings, the Sonoma County group performs in local and regional parades and cultural festivals.

The overall positive experience and sense of belonging also have important side-benefits for participating youth, helping to improve their academic performance, reduce teen pregnancy and high school drop-out rates in the group, and discourage gang participation. The program is open to all youth: both boys and girls of all ethnic backgrounds, economic status, and abilities participate.

Each publication in the series covers an important component of the program, with useful tips and tools for making it work for youth in your area. At the end of many of the publications are ready-to-use handouts, forms, and flyers that you can customize for your local use.

Publications in the Curriculum:

- Part 1. Introduction to 4-H Youth Bloco Drum and Dance (8427)
- Part 2. Developmental Characteristics of Participating Youth: Age-Based Programs (8428)
- Part 3. Fundraising for Your Program (8429)
- Part 4. Developing Positive Relationships (8430)
- Part 5. Planning Activities and Performances (8431)
- Part 6. Planning a Successful Field Trip (8432)
- Part 7. Effective Strategies for Management and Staffing (8433)
- Part 8. Developing a Schedule for Group Activities (8434)
- Part 9. Planning: Steps to Success (8435)
- Part 10. Making Good Nutrition and Exercise Part of the Program (8436)
- Part 11. Developing and Implementing an Evaluation Plan (8437)

Visit <http://www.windsorbloco.org> for a recruitment video and PowerPoint presentation to help promote and start a program of your own.



Nutritional Overview

Teaching Brazilian drum and dance techniques is the main focus of the Bloco Drum and Dance after-school program, but another focus is helping them learn to make healthier lifestyle choices by providing healthy snacks and food demonstrations and encouraging them to get more exercise through dance and drumming.

National surveys show that many teens are overweight as a result of poor eating choices and too little physical exercise. Some of the consequences of poor eating and fitness choices are poor school performance, low energy levels, obesity, and unhealthy eating habits.

Unfortunately, some teens are unknowing members of groups that are at a high risk for cancer, heart disease, and obesity. Here are some reasons why these teens may be at risk, according to a 2002 study from the United States Centers for Disease Control:

- Teens today spend twice as much time watching TV as they did 40 years ago.
- Seventy-one percent of teens do not get the recommended daily minimum of one hour of exercise.
- Almost one-half of all teens report that they eat no vegetables on a typical day.
- More than three-quarters of high school students report that they do not eat the recommended five servings of fruits and vegetables a day.
- Ten percent of teens are overweight and sixteen percent are at risk of becoming overweight.
- Only twelve percent drink the recommended three glasses of milk a day.
- One-third of adolescents report that they eat at least one meal or snack every day at fast food restaurants.
- Forty-three percent of students are trying to lose weight.

Why Healthy Snacking Can Be Good

Teens may notice they feel hungry more often than they did when they were younger. This is natural during adolescence, when a person's body needs more nutrients in order to grow. Snacks are a terrific way to satisfy hunger and provide an excellent source for the vitamins and nutrients the body needs (McGavin and Black 2009).

To help teens learn how to make better food choices, you need to show them why eating healthy will be to their advantage. Many teens know that choosing a large order of fries can fulfill their feeling of hunger and provide a temporary energy boost, but they may not know that French fries are high in fat and calories and will not help them nutritionally in the long run. This may be obvious to you, but it is the kind of nutritional information that many teens may never have heard.



Teens who practice a lifestyle that includes healthy snacks, are able to keep their energy level going and avoid weight gain. They have learned that avoiding foods with a lot of simple carbohydrates (sugar), such as candy bars or sodas, can help them lead a healthier life. Teens who practice a healthier lifestyle often look for foods that contain complex carbohydrates, like whole-grain breads and cereals, and then combine them with protein-rich snacks such as peanut butter, low-fat yogurt, or cheese. They also know that fruits and vegetables provide an excellent choice, delivering energy without the

added calories and excess fats. Once again, the USDA My Plate is an easy way to see how eating the right foods, at the right proportions, can and will lead to a healthy lifestyle.

Why Is Exercise Important?

Exercise benefits every part of the body, including the mind. Exercise causes the body to produce natural endorphins, bodily chemicals that lead a person to feel peaceful and happy. Exercise can even help some people sleep better. It can also help with a person's mental health, including issues such as mild depression and low self-esteem, according Mary L. Gavin, MD (2009). Exercise is a means to help you become healthy and develop a sense of accomplishment. If you feel healthy, you feel good about yourself and are able to accomplish your goals.

Exercise can help you look better too. People who exercise burn more calories and are better toned than those who do not. In fact, exercise is one of the most important parts of keeping your body at a healthy weight. When a person eats more calories than he or she burns, the body stores the extra calories as fat. Exercise helps burn those stored calories.

Exercising to maintain a healthy weight also decreases a person's risk of developing certain diseases, including Type 2 diabetes and high blood pressure (hypertension). These diseases, which used to be found mostly in adults, are now becoming more common in teens. Exercise can also help a person age well.



Nutrition Component

After-school snacks help ensure that teens receive the nutrition they need to learn, play, and grow. Organized, structured, and supervised programs that provide snacks help teens to think and behave better and help them to be successful. Once teens have entered middle or high school, they can no longer eat whenever they feel hungry, and it can be a long time between lunch and the final bell. Most teens arrive at an after-school program wanting and needing an immediate energy boost. This is a great opportunity for you to add some nutrients to the teens' diet. It was in response to the above-mentioned statistics and to our own experience with participants coming to the Bloco Drum and Dance after-school program hungry that we developed the nutritional component of the program.

The main focus for our nutrition effort has been to improve our participants' nutrition by providing them with healthy snacks. Through this experience, we expected, the participants would be exposed to a variety of nutritionally healthy foods. We then compiled copies of the snack recipes into educational packets at the end of each quarter and gave them to the youth participants so they could take them home and share the recipes with their families.

We then developed a second part of the Bloco Drum and Dance program as a way to expand the participants' nutrition experience and study, focusing on particular foods and their benefits. Our approach was to provide food demonstrations that would introduce new snacks and to study key nutrients with program participants. The food demonstrations were offered once a month on the day the drum and dance students practice together. Our Food Coordinator talked with program participants about the importance of selecting healthy foods for snacks and encouraged the youth to try the food presented at the demonstration and to use tabletop displays and handouts to share information about how important it is to eat healthy.

Goals of the Nutrition Component

- To encourage healthy food choices through food demonstrations
- To provide healthy snacks
- To encourage teens to eat more servings of fruits and vegetables
- To emphasize five essential nutrients: Vitamin A, Vitamin C, folic acid, fiber, and water



How the Nutrition Program Operates

Snacks are an important part of teens' daily nutrition, whether in after-school programs or at home. In planning healthy snacks, consider food safety and any known allergies as well as the snack's basic appeal. Presentation (displaying the snacks in an attractive way) providing information on the snacks' nutritional qualities, and following proper health and safety practices when presenting the snack foods can be essential and fun parts of the program. When you get the youth to participate in a food demonstration, it becomes a hands-on, learn-by-doing educational experience that allows the youth to interact with their peers in a warm and caring, participatory environment. Clean-up is also important and teaches the teens responsibility. Staff volunteers and teens need to allow enough time to manage proper food storage and prepare for the activities. Make sure to include this time in your activity plan.

You also need to select an adult to serve as food coordinator and manage this section of the program. This can be a paid employee or a volunteer (see Publication 8433, *Effective Strategies for Management and Staffing* for a job description). The adult in this position helps teens learn about making better food choices. Finding the right person to prepare and organize the snacks and the food demonstrations is crucial for the success of this component of the program.

The operation of the nutrition program should follow this outline:

1. Select and focus on one nutrition message for each class. The five areas of focus are Vitamin A, Vitamin B, fiber, folic acid, and water. The nutrition message has been presented as an easy-to-read 8½ x 11 sheet, which is included in the Appendix. The food coordinator can use the sheet as visual aid, mounting it in an 8½ x 11 inch plastic picture stand. To reinforce the nutrition message, this stand should be displayed on the table where the snacks or food demonstrations are presented at each drum and dance class. Also include any nutrition handouts or visual props that enhance the message. You can get these through the 5-A-Day program (www.cdc.gov/nccdphp/dnpa/5aday), any UC Cooperative Extension office (http://ucanr.org/County_Offices), or the USDA website (<http://www.usda.gov/wps/portal/usda>) or from a certified dietitian. Visual displays are available through various nutrition catalogs.
2. Select a time for the snack. Allow 15 minutes for this section of the program. Usually the most effective time is before you begin the drum and dance program, when the teens arrive at practice right after school. This can be a time to bring



the group together in a fun and educational way by providing the snack and letting them enjoy some time with friends.

3. Prepare the snack and display it attractively on the table. For example, you can use a small, colorful tablecloth and fun paper plates or a centerpiece that represents an approaching holiday or special event to make the experience more festive. Make sure the teens wash their hands and have the proper tools to eat with—such as a napkin, fork, or spoon.
4. Prepare the snack based on the number of teens participating in the drum and dance program. Included in the Appendix are helpful instructions for snack preparation:
 - 75 snack ideas, a sheet that will give you some simple ideas for planning quick, healthy snacks
 - Two more sheets, *Fruits and Vegetables in Season* and *Calendar for Picking Fruits and Vegetables*, to help you plan for and select in-season produce. The Appendix also includes a number of recipes you can prepare as a way to introduce new ways of enjoying healthy snacks.
5. At each nutrition class, start out with a brief introduction of the highlighted message. The messages can be found on individual sheets in the Appendix, suitable for display in an 8½ x 11 inch plastic self-standing picture frame on the serving table. The display sheets include nutritional value, the role of the nutrients found in the snack, and how the nutrient is needed for physical fitness. In addition the Appendix includes a handout titled *Nutrients: What They Do and Where to Get Them*. Make enough copies to give the handout to every participant as a way to encourage the consumption of foods that give them the nutrients they need to be healthy.

6. One nutrient message is used each month. After you choose the nutrient for the month, plan snacks your snacks to include whole foods like apples and oranges, trail mix, and so on. Note: You can repeat the five areas several times over the year by offering the same information but with a different snack. This will reinforce the healthy snack concept.



7. The food demonstration should be scheduled for the first joint practice of each month and serve as a starting point for the nutrition message. Relate this information to the USDA My Plate (see Appendix for a link to the My Plate website). Food demonstrations offer the participants an opportunity to taste and talk about the benefits of eating healthy foods. Whenever possible, use culturally appropriate foods. Ask the teens questions and involve them in the discussion of the materials you are presenting. Make sure the food you use in the demonstration is available for consumption by the teens. You can even have them help prepare the snack as part of the educational process.
8. Include the nutrition messages with the recipes in the educational packets that you send home with participants each quarter to share with their families.



9. Consider holding an end-of-year celebration to include teens and their parents. Give each family a folder of recipes and information on the health ideas being taught during the program. You might consider including a 5-A-Day cookbook as a gift, since some of the recipes in this chapter are taken from the 5-A-Day Program.
10. It is important that your snack and food demonstration coordinator attend a food safety class. This is a class designed for food handlers, and attendance is a legal requirement in many states. Most food handler classes are provided through the local County Environmental Health Department. Check your county government to find out which agencies offer this service. Most food safety classes require a fee and those who attend receive a 3-year certificate in food handling. Make sure to embrace safe food handling practices. A number of manuals on food safety that are available from bookstores and via the web also outline safety practices for after-school programs. A good grasp of this information is very important to a successful snack and food demonstration program.

Providing the Food for Snacks and Demonstrations

It is important that you build funding for snack and food demonstrations into your budget. Sometimes food purchases are not allowed by the terms of a grant.

The Advisory Committee for the Drum and Dance program will have to decide how to fund the snack and food demonstration section of the program. For instance, they could decide to fund raise or seek donations from the community to cover food costs. Consider the following:

- Develop a fundraiser. It is always good to include the teens in the process since they may be the major fundraisers. Furthermore, this will also allow them more participation that can help build life skills.



- Request donations from the farming and ranching community.
- Ask participants' parents to donate funds.
- Include a small fee in your enrollment fees to cover snacks.
- In some counties, you may be able to secure funds for this purpose from the 4-H County Council.
- Ask local service groups for assistance.

Before you solicit donations, though, make sure to develop a plan. Include a list of foods you plan to buy and the amount of money you will need. The average amount for "snack only" days for 50 students is between \$10 and \$15; for food demonstration days, the average is about \$20.

Once you secure the funds, the easiest way to manage the money and document your food purchases is to set up an account with a local supermarket. Have the Food Coordinator shop each week at the designated supermarket and charge the bill to that account. The Food Coordinator must then turn the receipts in to the Program Coordinator for verification and accounting purposes, and the Program Coordinator should keep all receipts with the program files. Make sure to prearrange an area for food storage. You may be able to store food in the school cafeteria, labeled for your program's use, or you may want to acquire a small refrigerator if no storage is available at the school.

Exercise Component (Drum and Dance)

Goals of Exercise in the Drum and Dance Program:

1. To encourage teens to live healthier lives through increased physical exercise.
2. To build an understanding that dance and drumming are sources of exercise.

The second component of the nutrition section is to increase teens' knowledge of the value of exercise, which in this case takes the forms of dancing and drumming. The program provides intense drum and dance lessons two or three days a week for 1½-to 2-hour sessions in Brazilian, Afro, and Cuban music. As the teens learn drum and dance skills, they also enjoy the fast-pace rhythm style of this music. Constant movement increases both the drummers' and the dancers' heart rates as they move to the beat of the drum. Practice sessions fill the air with sound, while the foot, arm, and body movement provides exercise for the youth. When they perform they make their audience smile at the same time as they are bringing good health to themselves.

Section I: Dancing

Dancing can be a great way to have fun, get your blood pumping, and get your body in shape.



What Is Aerobic Dancing?

The word aerobic means “with oxygen,” but the term aerobics can refer to any kind of activity that gets your heart pumping and your muscles using oxygen. Aerobic dance is any kind of exercise put to music, and can include everything from country music line dance aerobics to hip-hop dancing. It's recommended that kids and teens get at least 20 minutes of good aerobic exercise three times a week, so aerobic dancing can be a fun way to stay in shape.

- Warm-up: Start off moving to something slow for about 5 to 10 minutes as a preparation for more vigorous activities. Starting an aerobic routine too quickly can lead to injuries, so make sure the instructor starts the dance program out slowly.
- High impact: After warm-up, the main dance routine should last about 20 to 30 minutes. If teens are just starting to learn their dance routine, it's better to have them dance for a longer period of time at a slower pace than to have them go all out right at first. Let the instructor determine when the teens are ready to speed things up.
- Cool down: Spend the last 5 to 10 minutes of the dance practice cooling down and relaxing. This will give the teens a chance to stretch their muscles and let their heart rate slowly come down. (See Appendix for “How to Take a Heart Rate”).
- Whether they are dancing to a hip-hop dance video or following the dance instructor's lead, it is important to choose music that will make the dance class fun and exciting.
- Whatever tunes the instructor selects, they need to remember to include slower tracks for warm-ups or cool downs and fast songs for the main workout.
- A good pair of athletic shoes is extremely important for any kind of dance activity. Choose a pair of shoes with good tread, cushioning, and ankle support.

Section II: Drumming

Youth who are participating in the drum section of the program will need to remember that before they start playing, they first need to do some warm-up exercises. Generally, warm-up exercises for playing the drums involve drum rudiments or chops. If the youth really want their bodies to be prepared for playing the drums, they need to prepare themselves physically.

Drumming can be very strenuous on the body. If they warm up first, the teens will be able to play for hours and still keep their bodies relaxed. If they don't warm their bodies up before they start playing the drums, they will not be able to play very long as their bodies will tense up and show signs of fatigue.

- The first thing the teens need to do is do breathing warm-ups. This is an important part of drum playing as it helps keep the body relaxed. Have the participants take slow, deep breaths, making sure that they fill their lungs with air. Then, have them slowly exhale through the mouth. Repeat this exercise five times. It does not matter whether they are standing up or sitting down when they do these breathing exercises.
- It is also important to do head warm-ups. This relaxes the neck muscles. To begin, youth have to be in a standing position and tilt their head downward, making sure that the chin touches the chest. Then, have them tilt their head upward as far as it can go. Repeat this 10 times. The next step is to have them turn their head from side to side, repeating this 10 times as well.
- Warming up the torso is also important in drum playing. To do this, have the youth put their hands in front of them with the fingers of both hands interlocked and both hands near the chest, palms outward. With elbows pointing to the sides, have them extend their arms out forward, parallel to the ground. In this position, have them gently twist the torso from

left to right, right to left. Repeat this 10 times.

- The teens also have to warm up their fingers. To warm up the fingers, have teens place their hands on a flat surface and spread their fingers apart. Begin the stretch by having them pretend are reaching for something. Whenever they are stretching, count up to 5 seconds and then have them relax. Repeat the process 5 times.
- They will also need to warm up their legs. In a standing position with the feet together, have them raise the right leg up as high as they can. Try to get the teens to touch their knee to touch their chest and then bring it back down. Do the same with the left leg. Repeat this exercise 10 times on each leg.
- After warming up their bodies, the teens can start warming up on the drums, which basically means going through the rudiments. Then, once they are comfortable and relaxed, they can start playing the drums. In time they will learn that warming up before they start to play the drums will allow them to play the drums longer and play the drums at a very relaxed way.



References

- Centers for Disease Control and Prevention. 2006. Youth risk behavior. Retrieved January 26, 2007, from www.cdc.gov/HealthyYouth/yrbs.
- Conklin-Ginop, E. 2000. 4-H cooking fun for families with project lean. Sonoma, Calif.: University of California Cooperative Extension.
- Foerster, S., M. Fierro, J. Gregson, and M. Hudes. 1998. Teen eating, exercise, and nutrition survey. Sacramento: Public Health Institute.
- Garbolino, T., K. Tuttle, D. Backman, B. Sun, K. Gardia, and S. Sciandri. 2009. Kids . . . get cookin'! Fast and fun recipes. Sacramento: Network for a Healthy California—Children's Power Play Campaign. Accessed at www.cdph.ca.gov/programs/cpns/Documents/Network-FV-PP-KidsGetCookinPowerPlayRecipes.pdf.
- Gavin, M. 2006. Teen health. Nemours Foundation. Accessed at <http://teenshealth.org/teen/>.
- . 2009. Smart snacking. Retrieved May, 2011, from http://kidshealth.org/parent/nutrition_center/healthy_eating/snacking.html#cat20738.
- Gavin, M., and J. Black. 2009. Smart snacking. Retrieved October 1, 2009, from http://kidshealth.org/teen/food_fitness/nutrition/healthy_snacks.html#
- McCormack-Brown, K., T. Akintobi, S. Pitt, V. Berends, R. McDermott, P. Agron, and A. Purcell. 2004. California school board members' perceptions of factors influencing school nutrition policy. *Journal of School Health* 74:52–58.
- Project Lean. 2004. Food on the run. Retrieved December 12, 2008, from www.californiaprojectlean.org.
- Schmeirer, J., and C. Zidenberg. 2007. Eat fit. Retrieved December 1, 2008 from <https://eatfit.net>.

Inquiry and Experiential Learning

The activities in this curriculum were designed around inquiry and experiential learning. Inquiry is a learner-centered approach in which individuals are problem solvers investigating questions through active engagement, observing and manipulating objects and phenomena, and acquiring or discovering knowledge. Experiential learning (EL) is a foundational educational strategy used in 4-H. In it, the learner has an experience phase of engagement in an activity, a reflection phase in which observations and reactions are shared and discussed, and an application phase in which new knowledge and skills are applied to real-life settings. In 4-H, an EL model that uses a five-step learning cycle is most commonly used. These five steps—Experiencing, Sharing, Processing, Generalizing, and Application—are part of a recurring process that helps build learner understanding over time.



For more information on inquiry, EL, and the five-step learning cycle, please visit the University of California Science, Technology, and Environmental Literacy Workgroup's Experiential Learning Web site, <http://www.experientiallearning.ucdavis.edu/>.

For More Information

To order ANR products or download free publications, visit the ANR Communication Services online catalog at <http://anrcatalog.ucanr.edu> or phone 1-800-994-8849. You can also place orders by mail or FAX, or request a printed catalog of our products from

University of California
Agriculture and Natural Resources
Communication Services
1301 S. 46th Street
Building 478 – MC 3580
Richmond, California 94604-4600
Telephone: 1-800-994-8849 or 510-665-2195, FAX: 510-655-3427
e-mail inquiries: anrcatalog@ucanr.edu
An electronic copy of this publication can be found at the ANR Communication Services Web site, <http://anrcatalog.ucanr.edu>.
Publication 8436
ISBN-13: 978-1-60107-730-1

 © 2012 by The Regents of the University of California
Agriculture and Natural Resources.
All rights reserved.

The University of California Division of Agriculture & Natural Resources (ANR) prohibits discrimination against or harassment of any person participating in any of ANR's programs or activities on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (which includes pregnancy, childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), genetic information (including family medical history), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (as defined by the Uniformed Services Employment and Reemployment Rights Act of 1994: service in the uniformed services includes membership,

application for membership, performance of service, application for service, or obligation for service in the uniformed services) or any person in any of its programs or activities.

University policy also prohibits retaliation against any employee or person participating in any of ANR's programs or activities for bringing a complaint of discrimination or harassment pursuant to this policy. This policy is intended to be consistent with the provisions of applicable State and Federal laws.

Inquiries regarding the University's equal employment opportunity policies may be directed to Linda Marie Manton, Affirmative Action Contact, University of California, Davis, Agriculture and Natural Resources, One Shields Avenue, Davis, CA 95616, (530) 752-0495. For information about ordering this publication, telephone 1-800-994-8849. For assistance in downloading this publication, telephone 530-754-3927.

To simplify information, trade names of products have been used. No endorsement of named or illustrated products is intended, nor is criticism implied of similar products that are not mentioned or illustrated.

This publication has been anonymously peer reviewed for technical accuracy by University of California scientists and other qualified professionals. This review process was managed by the ANR Associate Editor for Human and Community Development–Youth Development, Lynn Schmitt-McQuitty.
web-7/12-WJC/EZA

Appendix

Forms and informational booklets published by the California State 4-H Office are available free of charge at www.ca4h.org/Resources/Publications/. Look for the “Project Leader’s Digest” for guidelines on setting up 4-H activities.

Many counties now offer or require online enrollment in 4-H programs. Contact your local UC Cooperative Extension County Office for information.

If your 4-H program is outside of California, please contact your state’s 4-H office to obtain correct, current information.

In this Appendix there are the following:

1. The tabletop displays for the Nutrition information that will be shared at the food demonstrations. Insert these into the 8½ by 11 self-standing plexus glass picture frame and set it on the table.

2. Nutrition handouts related to for the participants to study and take home
3. Recipes that can be used for the daily snack and food demonstrations.

Table Top Displays

- Vitamin A
- Vitamin C
- Folic Acid
- Fiber
- Water

Handouts

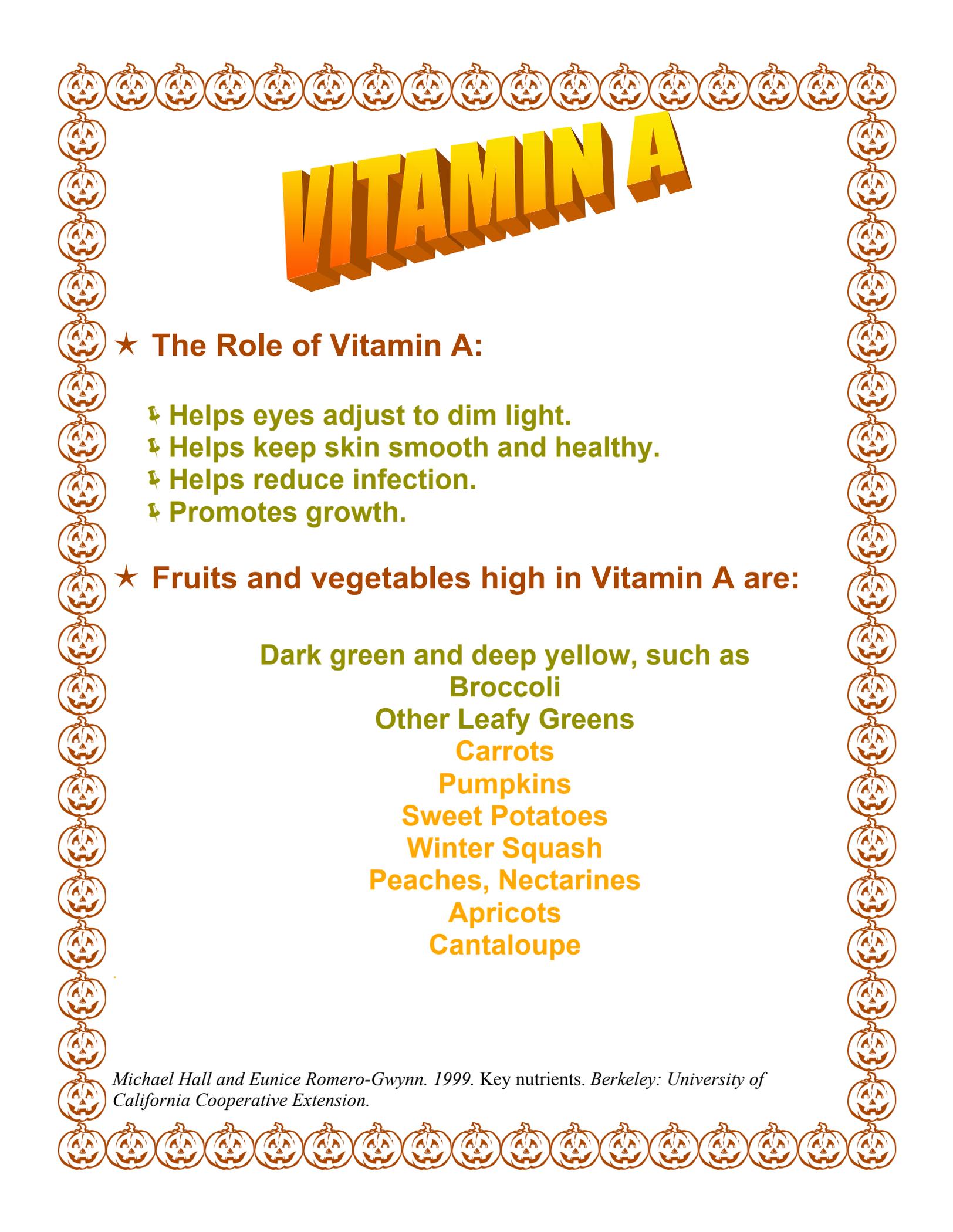
- Nutrients, What they Do and Where to Get Them
- Key Nutrients
- Nutrients: Buying Calendar for Fresh Fruits & Vegetables



- USDA My Plate in Spanish and English (access at www.choosemyplate.gov)
- 75 Snack Ideas
- How to Take a Heart Rate
- Heart Rate Chart

Recipes

- Raw Vegetable Nibblers
- Tomato Wedges or Slices
- Dips for Vegetable Nibblers
- Fruit Smoothie
- Jennifer's Juicy Pops
- Sparkling Grapes
- Orange Freeze Flip
- Pizza on a Roll
- Quick Minestrone Soup
- Sweet Potato Chips
- Tuna Pitas



VITAMIN A

★ The Role of Vitamin A:

- ↳ Helps eyes adjust to dim light.
- ↳ Helps keep skin smooth and healthy.
- ↳ Helps reduce infection.
- ↳ Promotes growth.

★ Fruits and vegetables high in Vitamin A are:

Dark green and deep yellow, such as

Broccoli

Other Leafy Greens

Carrots

Pumpkins

Sweet Potatoes

Winter Squash

Peaches, Nectarines

Apricots

Cantaloupe

Michael Hall and Eunice Romero-Gwynn. 1999. Key nutrients. Berkeley: University of California Cooperative Extension.

VITAMIN C

The role of Vitamin C:

- Helps hold body cells together. Strengthens walls of blood vessels.
- Helps in healing cuts and scratches.
- Helps tooth and bone formation.

Fruits and vegetables that are high in Vitamin C are:

Cantaloupe
Grapefruit
Oranges
Strawberries
Broccoli
Brussels sprouts
Collard greens
Sweet Peppers
Mustard and Turnip Greens
Baked Potatoes
Tomatoes

Michael Hall and Eunice Romero-Gwynn. 1999. Key nutrients. Berkeley: University of California Cooperative Extension.

FOLIC ACID

ROLE OF FOLIC ACID:

- * Helps make red blood cells.
- * Helps prevent certain kinds of anemia (anemia means too little iron in red blood cells).
- * Prevents birth defects.

Fruits and vegetables high in Folic Acid are:

Broccoli
Oranges and Orange Juice
Greens
Green Leafy Vegetables
Chickpeas

Michael Hall and Eunice Romero-Gwynn. 1999. Key nutrients. Berkeley: University of California Cooperative Extension.

FIBER

Role of Fiber:

- **Catches water like a sponge.**
- **Helps food move quickly through the body.**
- **Lowers blood cholesterol.**
- **May reduce the risk of some types of cancer.**

Foods High in Fiber are:

Vegetables and **unpeeled fruits** (also, **grains** and **beans**)

Carrots

Green Beans

Broccoli

Tomatoes

Cauliflower, Celery

Potatoes (with the skin)

Oranges

Bananas

Apples

Strawberries

Michael Hall and Eunice Romero-Gwynn. 1999. Key nutrients. Berkeley: University of California Cooperative Extension.

Water

Role of Water:

- Carries nutrients and waste throughout the body.
- Maintains body structure.
- Cushions joints and spinal cord.
- Helps keep your body temperature regulated.
- Maintains your blood.

Water is the best drink. Use it hot, warm or cold. It is great in the summer to cool down and it's great in the winter to warm up!
Drink 7 to 11 cups of water a day!

Michael Hall and Eunice Romero-Gwynn. 1999. Key nutrients. Berkeley: University of California Cooperative Extension.

NUTRIENTS: WHAT THEY DO AND WHERE TO GET THEM

Nutrient	Functions	Sources
Sodium	Water balance	Salty foods, softened water
Potassium	Nerve function	Citrus fruits, bananas, apricots
Vitamin A	Night vision, tissue maintenance, liver	Yellow-orange and dark-green fruits and vegetables
Vitamin E	Antioxidant	Plant oils, whole grains, almonds
Vitamin C	Antioxidant, synthesis of connective tissues	Citrus fruits, berries, potatoes, red and green peppers
Thiamin	Helps in carbohydrate metabolism	Pork, legumes, whole and enriched grains, liver nuts
Riboflavin	Helps in energy and protein metabolism	Liver, meat, dairy products, enriched grains, eggs
Niacin	Helps in energy and protein metabolism	Liver, meat, fish, whole and enriched grains, legumes
Vitamin B-6	Helps in amino acid metabolism	Liver, meat, legumes, potatoes, organ meats
Folate	Helps in cell division	Liver, legumes, oranges, green leafy vegetables, whole grains
Vitamin B-12	Helps in cell division	Animal products (meats, eggs, milk)
Calcium	Bone and teeth formation, energy production	Milk and milk products, soft fish bones, leafy green vegetables
Phosphorus	Bone and teeth formation, energy production	Meat, fish, poultry, milk, eggs, legumes, cereals, nuts
Magnesium	Helps in metabolism	Whole grains, nuts, legumes, green leafy vegetables
Iron	Carries oxygen in blood	Liver, meats, whole grains, legumes
Zinc	Helps in metabolism and development	Oysters, beef, lamb, legumes, whole grains

KEY NUTRIENTS

Foods are the best sources of the nutrients we need. This chart summarizes the key nutrients, why each is needed, and foods that are good sources for each nutrient. It will help you understand why you should eat a wide variety of food to be well-nourished and healthy.

Nutrient	Why needed	Most important sources
Protein	<ul style="list-style-type: none"> ❖ Builds and maintains all tissues. ❖ Forms an important part of enzymes, hormones, and body fluids. ❖ Contributes to children's growth. ❖ Supplies energy. 	Poultry, lean meats, organ meats, seafood, eggs, milk, cheeses, yogurt, soybean curd (tofu), beans, lentils, garbanzos, dry peas, soybeans, peanut butter, nuts. Cereals, bread, tortillas, pasta and rice also provide protein.
Carbohydrates	<ul style="list-style-type: none"> ❖ Supply food energy. ❖ Spare protein for purposes of body building and repair. 	Breads, tortillas, cereals, corn, grits, potatoes, rice, spaghetti, macaroni, and noodles. Sugars: honey, molasses, syrups, sugar, and other sweets.
Fats	<ul style="list-style-type: none"> ❖ Supply food energy (weight for weight supplies twice as much energy as carbohydrates). ❖ Some supply essential fatty acids that help the body use certain other nutrients such as Vitamins A, D, E, and K. 	Cooking fats and oils, butter, margarine, salad dressings, and oils. Fats in meats. Most people use too much fat. Moderation in fat consumption is advisable.
Water	<ul style="list-style-type: none"> ❖ Important part of all cells and fluids in body. ❖ Carrier of nutrients to and waste from cells in the body. ❖ Aids in digestion and absorption of food. ❖ Helps to regulate body temperature. 	Water, juices and other beverages, soup, fruits, and vegetables. Most foods contain some water. Water is an easy, low-cost way to provide fluids to our body.
Calcium	<ul style="list-style-type: none"> ❖ Builds bones and teeth. ❖ Helps blood to clot. ❖ Helps nerves, muscles, and heart to function properly. 	Milk—whole, low-fat, nonfat, fresh, dried, canned. Buttermilk, cheeses, yogurt, ice cream; soybean curd (tofu), sardines eaten with bones.
Iron	<ul style="list-style-type: none"> ❖ Combines with protein to make hemoglobin, the red substance of blood that carries oxygen from the lungs to the muscles, brain, and other parts of the body. ❖ Helps cells use oxygen. 	Liver, kidney, heart, oysters, lean meat, egg yolk, dry beans, dark green leafy vegetables, dried fruit, whole grain, enriched flour, pasta, breads, and cereals.
Iodine	<ul style="list-style-type: none"> ❖ Helps the thyroid gland to work properly. 	Iodized salt. Saltwater fish and other seafood.

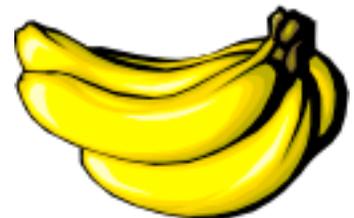
Nutrient	Why needed	Most important sources
Sodium	<ul style="list-style-type: none"> ❖ Contributes to regulate water distribution in the body. ❖ Facilitates passage of some nutrients into the body's cells. ❖ Too much sodium in the diet may contribute to hypertension in some people. 	Salt; garlic, onion, and celery salts; monosodium glutamate (MSG), baking soda, baking powder, soy sauce. Processed foods such as ham, bacon, hot dogs, olives and other pickled foods, canned soups, and tomato juice. Most crackers and breakfast cereals contain sodium in different amounts.
Zinc	<ul style="list-style-type: none"> ❖ Contributes to children's growth. ❖ Helps digestion and use of proteins in the body. 	Milk, cheeses, yogurt, poultry, sea foods, meat, eggs, peanut butter, whole grains and whole grain products.
Vitamin A	<ul style="list-style-type: none"> ❖ Helps eyes adjust to dim light. ❖ Helps keep skin smooth. ❖ Helps keep lining of mouth, nose, throat, and digestive tract healthy and resistant to infection. ❖ Promotes growth. 	Liver, dark green and deep yellow vegetables such as broccoli, turnip and other leafy greens, carrots, pumpkin, sweet potatoes, winter squash; peaches, nectarines, apricots, cantaloupe.
Thiamin	<ul style="list-style-type: none"> ❖ Helps body cells obtain energy from food. ❖ Helps keep nerves in healthy condition. ❖ Promotes good appetite and digestion. 	Lean pork, heart, kidney, liver, dry beans and peas, whole grain and enriched cereals and breads, and some nuts.
Folic Acid	<ul style="list-style-type: none"> ❖ Helps to produce red blood cells and other body cells. ❖ Helps prevent a kind of anemia. 	Liver, soybeans, chick peas, leafy vegetables, broccoli, oranges, greens.
Riboflavin	<ul style="list-style-type: none"> ❖ Helps cells use oxygen to release energy from food. ❖ Helps keep eyes healthy. ❖ Helps keep skin around mouth and nose smooth. 	Milk, liver, kidney, heart, lean meat, eggs, and dark leafy greens.
Niacin	<ul style="list-style-type: none"> ❖ Helps the cells of the body use oxygen to produce energy. ❖ Helps to maintain health of skin, tongue, digestive tract, and nervous system. 	Liver, yeast, lean meat, poultry, fish, leafy greens, peanuts and peanut butter, beans and peas, and whole grain and enriched breads and cereals.
Vitamin B12	<ul style="list-style-type: none"> ❖ Contributes to the formation of red blood cells. ❖ Prevents a kind of anemia. 	Liver and other organ meats, sardines, lean meat, poultry, eggs, milk, cheeses.
Vitamin C	<ul style="list-style-type: none"> ❖ Helps hold body cells together and strengthen walls of blood vessels. ❖ Helps in healing wounds. ❖ Helps tooth and bone formation. 	Cantaloupe, grapefruit, oranges, strawberries, broccoli, Brussels sprouts, collards, green and sweet red peppers, mustard and turnip greens, baked potatoes and tomatoes.
Vitamin D	<ul style="list-style-type: none"> ❖ Helps body use calcium and phosphorus to build strong bones and teeth, important in growing children and during pregnancy and lactation. 	Fish, liver oils; food fortified with Vitamin D, such as milk. Direct sunlight produces Vitamin D from cholesterol in the skin.

BUYING CALENDAR FOR FRESH FRUITS AND VEGETABLES

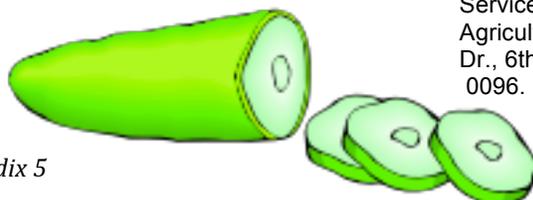
MONTH	FRUIT				VEGETABLE			
January	Apples Avocados	Grapefruit Lemons	Navel oranges Tangerines	Winter pears	Beets Cabbage	Cauliflower Celery	Lettuce Potatoes	Spinach
February	Apples Avocados	Grapefruit Lemons	Navel oranges Tangerines	Winter pears	Artichokes Beets Broccoli	Cabbage Cauliflower Celery	Lettuce Potatoes Spinach	
March	Apples Avocados	Grapefruit Lemons	Navel oranges Winter pears		Artichokes Asparagus Beets	Broccoli Cabbage Carrots	Cauliflower Celery Potatoes	Spinach
April	Apples Avocados	Grapefruit Lemons	Navel oranges Strawberries	Winter pears	Artichokes Asparagus Beets	Broccoli Carrots Cauliflower	Lettuce Peas Spinach	
May	Avocados Cherries	Grapefruit Lemons	Navel oranges Strawberries	Valencia oranges	Asparagus Beets Cabbage	Carrots Celery Lettuce	Onions Peas Potatoes	Spinach Sweet corn Tomatoes
June	Apricots Avocados Bushberries Cantaloupe	Cherries Figs Honeydew melon Lemons	Nectarines Peaches Plums Strawberries	Valencia oranges Watermelons	Carrots Celery Cucumbers	Green (snap) beans Lettuce Onions	Peppers Potatoes Summer squash	Sweet corn Tomatoes
July	Apricots Avocados Bushberries Cantaloupe	Grapefruit Honeydew melon Lemons Nectarines	Peaches Pears Plums Strawberries	Valencia oranges Watermelon	Cabbage Carrots Celery Cucumbers	Eggplant Green (snap) beans Green lima beans Lettuce	Okra Onions Peppers Potatoes	Summer squash Sweet corn Tomatoes
August	Avocados Cantaloupe Figs Grapefruit	Grapes Honeydew melon Lemons Nectarines	Peaches Pears Persian melon Plums	Valencia oranges Watermelon	Cabbage Celery Cucumbers Eggplant	Green (snap) beans Green lima beans Lettuce Okra	Onions Peppers Potatoes Summer squash	Sweet corn Tomatoes
September	Apples Cantaloupe Figs	Grapefruit Grapes Honeydew melon	Lemons Peaches Pears	Persian melon Plums and prunes Valencia oranges	Cabbage Cucumbers Eggplant	Green (snap) beans Green lima beans Lettuce	Onions Peas Peppers	Summer squash Sweet corn Tomatoes
October	Apples Dates Figs	Grapes Lemons Pears	Persian melon Persimmons Valencia oranges		Broccoli Brussel sprouts Cabbage Carrots Cucumbers	Eggplant Green (snap) beans Green lima beans Lettuce Okra	Peas Peppers Potatoes Sweet corn Sweet potatoes	Tomatoes Winter squash
November	Almonds Apples	Avocados Dates	Grapes Lemons	Persimmons Walnuts	Broccoli Brussel sprouts Cabbage Carrots Cauliflower	Celery Eggplant Green (snap) beans Lettuce Peas	Peppers Potatoes Sweet corn Sweet potatoes Winter squash	Spinach

75 "SNACK ATTACK" IDEAS FOR CHILDREN

1. Celery stuffed with cottage cheese topped with raisins
2. A bunch of grapes
3. Peanut butter and sliced bananas
4. Sunflower seeds
5. Whole-wheat toast, spread with applesauce and topped with cinnamon
6. A frozen banana
7. Celery with peanut butter
8. Pumpkin seeds
9. A hard-cooked egg
10. Sesame breadsticks
11. Vegetable juice
12. Half a grapefruit
13. Honeydew melon wedge sprinkled with lime juice
14. Partially thawed frozen strawberries with milk and vanilla
15. Dried prunes
16. Sparkling mineral water with fruit juice
17. Baked apple filled with pineapple chunks and topped with nuts
18. Half a cantaloupe with cottage cheese
19. Glass of buttermilk, flavored with orange juice
20. Tangerine
21. Tahini (ground sesame-seed butter) on toast
22. Broccoli flowerets steamed and sprinkled with lemon
23. Plain yogurt topped with fresh or water packed peaches
24. Cheese slice and a pickle
25. Stewed mixed dried fruit: apples, apricots, pears and raisins
26. Tomato slice with tuna and melted cheese
27. Bagel with a tablespoon of cream cheese
28. Waffle with peanut butter
29. GORP - Good Old Raisins and Peanuts
30. Slice of Swiss cheese and a piece of apple
31. Hot apple juice with cinnamon and nutmeg
32. Chow mein noodles
33. Half an avocado sprinkled with lemon juice
34. Popcorn (reminder: the microwave kinds are usually high in fat)
35. Raw veggies with hummus (chickpea) or yogurt dip
36. Puffed wheat or rice cereal with milk
37. Carrot juice
38. Handful of almonds
39. Banana with wheat germ
40. Tossed salad
41. Cottage cheese and raisins sprinkled with cinnamon
42. Banana topped with yogurt and cinnamon
43. Figs
44. Open-faced lettuce and tomato sandwich



- 45. Baked potato with parmesan cheese
- 46. Kosher dill pickle
- 47. Dried papaya
- 48. Cheese with wheat wafers
- 49. Glass of low fat milk
- 50. Cheery tomatoes dipped in yogurt
- 51. Cashew butter on crackers
- 52. Cottage cheese with apple slices
- 53. Open-face tomato and cucumber sandwich on whole wheat bread
- 54. Orange slices, dates, and shredded coconut
- 55. Sliced cucumbers sprinkled with vinegar
- 56. Health shake - yogurt, pineapple juice, strawberries and wheat germ mixed in blender
- 57. Toasted English muffin with cheese
- 58. Dates with low fat cottage cheese
- 59. Raw zucchini strips
- 60. Watermelon wedge
- 61. Cup of vegetable soup
- 62. Applesauce topped with cinnamon
- 63. Peanut butter on oatmeal bread
- 64. Canned water-packed pineapple chunks with low fat yogurt
- 65. Shredded whole wheat cereal with fruit slices and milk
- 66. Carrot-raisin salad
- 67. Frozen nonfat yogurt
- 68. Fruit or vegetable kabobs (a variety of small pieces on toothpicks)
- 69. Sliced cheese and cucumbers on rice cakes



- 70. Frozen fruit juice bars
- 71. Frozen grapes
- 72. Banana pops (sliced bananas dipped in orange juice and rolled in wheat germ, finely chopped nuts, coconut, or crushed ready to eat cereal; wrapped in foil and refrigerated)
- 73. Refried beans on tortillas
- 74. Quick pizzas (tomato sauce, grated low fat cheese, seasonings, chopped vegetables on half an English muffin)
- 75. Frobana Crunch (bananas cu into 4 pieces, dipped in fruit-flavored yogurt, rolled in crushed graham crackers, and frozen)



**University of California
Cooperative Extension
4-H Expanded Food and Nutrition
Education Program**

The University of California prohibits discrimination against or harassment of any person on the basis of race, color, national origin, religion, sex, physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (special disabled veteran, Vietnam-era veteran or any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized). University Policy is intended to be consistent with the provisions of applicable State and Federal laws. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Staff Personnel Services Director, University of California, Agriculture and Natural Resources, 300 Lakeside Dr., 6th Floor, Oakland, CA 94612-3550 (510) 987-0096.



HOW TO TAKE A HEART RATE

There are several ways to monitor the intensity of exercise. The best way is to take your heart rate during the exercise, within the first 5 minutes of your cardiovascular exercise session, and again just before the cool-down.

Your heart rate is measured in beats per minute (BPM). Here are two ways to check your heart rate during exercise:

One way is to purchase a heart rate monitor that you can strap around your chest. The monitor attaches to a digital wristwatch display that tells you exactly what your heart rate is at a specific moment in the exercise session. A second way is to feel your pulse at either the carotid artery, the temporal artery, or the radial artery. The easiest sites to monitor are the carotid and radial arteries. To feel your carotid artery, gently place your index finger on your neck at a point in the middle of the space between your collarbone and your jaw line. To feel the radial artery, place your index and middle fingers on the thumb side of the underside (palm side) of your wrist. Using the second hand on a watch or clock, count the number of pulses in 6 seconds and multiply that number by 10. This gives you the number of times your heart is beating in one minute.

To easily get an idea of what your own maximum heart rate should be, just subtract your age from 220. For example, a 13-year-old would have a maximum heart rate of 207 BPM ($220 - 13 = 207$). A healthy heart rate under moderate exercise is about 70 percent of the maximum, or 145 BPM for that same 13-year-old ($0.7 \times 207 = 145$).

Duration is the length of time the exercise activity is performed. A good minimum duration for moderate exercise is 30 minutes per day.

Frequency is how often the activity is performed. We recommend that adolescents exercise as many days a week as possible. This kind of regular exercise can improve the health and well being of adolescents. Personal goals such as weight gain may alter these numbers for an individual. Personal differences, such as an individual's athletic ability or medical conditions, may also affect how long or how often you want to exercise.

Basic physiology. When a body uses its muscles, it requires food to fuel the muscles. In order to burn that food and create energy, the body needs oxygen. The more activity, the more oxygen it requires, the faster the breathing (respiration), and the faster the heart pumps to deliver the blood, rich with oxygen and calories, to the muscle cells of the body. By measuring your heart rate and respiration rate, you can estimate how many calories your body is burning. An elevated heart rate is a sign that the body is using more calories than usual.

Adapted from Mountain States Health Alliance, How to take your heart rate, retrieved on November 2, 2009, from www.msha.com/body_sibling02.cfm?id=684.

FUN RECIPES TO TRY AT HOME!

Raw Vegetable Nibblers

A recipe rich in fiber

Crunchy, munchy snacks—good plain or with dips!

Ingredients:

- ❖ 2 medium carrots
- ❖ 1 small bunch broccoli or 1 small bunch cauliflower
- ❖ 2 stalks celery

Preparation:

1. Wash all the vegetables.
2. Prepare each vegetable according to the following directions.
3. Arrange on a platter and serve plain or with a dip. (Recipes for dips follow.)
4. Serves 6–8 people.

Carrot Sticks

1. Peel carrots.
2. Cut into strips about ½ inch thick and 3 inches long.
3. Chill in ice water to crisp until ready to arrange on platter.

Celery Sticks

1. Cut a stalk of celery into 4- to 5-inch-long pieces.
2. Cut in lengthwise strips.
3. Chill in ice water until ready to arrange on a platter and serve.



Celery Fans

1. Cut a stalk of celery into 3-inch-long pieces.
2. Make four or five cuts at each end, about 1/3 the length of the piece
3. Chill in ice water until the cuts spread to form fans.

Materials:

Toothpicks
Vegetable peeler
Bowl
Ice cubes
Cutting board
Knife
Platter

Variations:

Include other raw vegetable nibbles, such as green pepper rings, trimmed green onion, radish roses or fans, turnip wedges, beet wedges, cucumber slices or sticks.



Flowerettes - Broccoli Or Cauliflower

1. Separate washed broccoli or cauliflower into flowerettes.
2. Wash again.
3. Leave flowerettes whole if they are small, or cut in slices if too big.
4. Cover and keep in refrigerator until ready to arrange on the platter.

Carrot Curls

1. Peel carrots.
2. Use a vegetable peeler to slice the carrot into paper-thin, lengthwise slices. (Be sure to slice away from yourself.)
3. Roll each slice around your finger to make a curl.
4. Fasten each curl with a toothpick.
5. Chill curls in ice water for an hour or more until carrot stays curled when you remove the toothpick.
6. Remove toothpicks and arrange carrot curls on a platter.



FUN RECIPES TO TRY AT HOME!

Tomato Wedges or Slices

Ingredients:

- ❖ 4 medium tomatoes

Preparation:

1. Slice off $\frac{1}{2}$ inch of the stem end and throw away.
2. To make wedges, place tomato on cut end and cut in half. Then cut each half into halves again.
3. To make slices, cut into about $\frac{1}{2}$ -inch thick, crosswise slices.
4. Cover and keep in refrigerator until ready to arrange on a platter.
5. Makes 6 to 8 servings

Materials:

Knife
Platter
Cutting board

FUN RECIPES TO TRY AT HOME!

Dips for Vegetable Nibbles

Four different types of dip to try!

Refried Bean Dip

Mix about 1¼ cup refried beans with ½ teaspoon chili powder. Mash with fork until very soft. If it is too hard, mix in a little water (about ¼ teaspoon). Serve with raw vegetable nibbles.

Nutritional Analysis:*

Protein 23%
Carbohydrates 66%
Fat 11%
High Fiber!

Mayonnaise-Lemon Dip

Mix 1¼ cup low-fat mayonnaise with ¼ to ½ teaspoon lemon juice. Serve with raw vegetable nibbles.

Nutritional Analysis:*

Vitamin C 1%
Carbohydrates 2%
Fat 97%

Mayonnaise-Curry Dip

Mix 1¼ cup low-fat mayonnaise with ¼ to ½ teaspoon curry powder. Serve with raw vegetable nibbles. Serve with raw vegetable nibbles.

Nutritional Analysis:*

Protein 1%
Carbohydrates 2%
Fat 97%

For a healthier dip, substitute plain yogurt for the mayonnaise.

Nutritional Analysis:*

Protein 32%
Carbohydrates 46%
Fat 22%

Or try this simple, tasty, and nutritious dip:

Vegetable Dip

Mix about 1¼ cup refried beans with ½ teaspoon chili powder. Mash with fork until very soft. If it is too hard, mix in a little water (about ¼ teaspoon). Serve with raw vegetable nibbles.

Nutritional Analysis:*

Protein 20%
Carbohydrates 61%
Fat 19%
High Fiber!

For a healthier dip, substitute plain yogurt for the mayonnaise.

* as a percentage of total calories

FUN RECIPES TO TRY AT HOME!

Fruit Smoothie

A sweet, nutritious treat that is fun to drink!

Ingredients:

- ❖ 1 cup yogurt (any flavor)
- ❖ 1 banana
- ❖ 1 cup of 100% fruit juice (any flavor)

Preparation:

1. Put yogurt, banana, and fruit juice in a blender.
2. Blend ingredients until smooth.
3. Add fresh, frozen, or canned fruit a little bit at a time.
4. If you need to use ice cubes, add them a little bit at a time.
5. Serve immediately.
6. Serves one to two people.

Materials:

Blender
Spoon
Dry measuring cup
Ice cubes

Nutritional Info:

Serving = 2 cups

Calories: 187
% of calories from fat: 2%
Sugar: 31g
Calcium: 32%
Iron: 3%
Vitamin C: 178%
Vitamin A: 1%



“If you use fresh or canned fruit, add ice cubes to the blender until the smoothie reaches the desired consistency.”

* as a percentage of total calories

FUN RECIPES TO TRY AT HOME!

Jennifer's Juicy Pops

A party of ice!

Makes 4 servings

Ingredients:

- ❖ 2 cups hulled* and halved strawberries
OR 3 cups chopped kiwifruit
OR 3 cups chopped cantaloupe
- ❖ 1 cup orange juice
- ❖ 4 7-oz paper cups
- ❖ 4 popsicle sticks *OR* plastic spoons

Preparation:

1. Place fruit and juice in blender container or food processor bowl. Whirl until smooth.
2. Pour mixture into four 7-oz paper cups; place cups in freezer until partially frozen, about 1 hour.
3. Place popsicle sticks or plastic spoons in center of cups.
4. Freeze until firm.



*"A hulled
strawberry has
its leafy stem
removed."*



FUN RECIPES TO TRY AT HOME!

Sparkling Grapes

A cool frozen treat!

Makes 8 servings

Ingredients:

- ❖ 1 package flavor gelatin
- ❖ ½ cup of boiling water
- ❖ ½ cup of ice cubes
- ❖ 24 small cluster of seedless grapes (about 6 grapes per cluster)

Preparation:

1. Pour gelatin powder into a measuring cup. Pour half of the powder into a bowl. Pour the other half into a clean, empty salt shaker.
2. Carefully add boiling water to the bowl of gelatin. Stir until powder is dissolved. Add ice cubes and stir until ice melts.
3. Dip grape clusters in liquid gelatin mixture. Shake off extra liquid. Place on plate.
4. Use the shaker to sprinkle gelatin powder over grapes. Serve in paper cupcake cups.

Orange Freeze Flip

Pure Ice-e Perfection!

Makes 6 to 8 servings

Ingredients:

- ❖ 1 6-oz can undiluted frozen orange juice concentrate
- ❖ 1 cup water
- ❖ 1 cup nonfat milk
- ❖ 1 teaspoon vanilla
- ❖ 10 ice cubes

Preparation:

Put all ingredients in a blender container or food processor bowl. Whirl in blender or food processor (that is, turn the machine on and press “blend” or “mix”) for 30 seconds. Make sure the lid is on!

FUN RECIPES TO TRY AT HOME!

Pizza on a Roll

A great lunch or snack!

Servings of fruits and vegetables: 1.25

Ingredients:

- ❖ 2 oz tomato paste
- ❖ 1 tsp. oregano
- ❖ ½ tsp. garlic
- ❖ ¼ tsp. salt
- ❖ 1 can ready-to-bake biscuits
- ❖ 4 oz low-fat mozzarella cheese
- ❖ ⅓ small can of crushed pineapple
- ❖ ¼ tsp pepper
- ❖ 1 bunch broccoli
- ❖ 1 green onion

Preparation:

1. Wash hands thoroughly.
2. Open biscuit can and place biscuits on oiled cookie sheet.
3. Flatten each biscuit with the palm of your hand.
4. Spread 1 Tbsp of tomato paste on top of each biscuit.
5. Sprinkle tomato paste with spices.
6. Grate cheese.
7. Place half of the grated cheese on top of the tomato paste.
8. Wash vegetables.
9. Dice green onion and chop broccoli into small pieces.
10. Place cut vegetables and pineapple on top of cheese.
11. Add remainder of cheese to the top of pizzas.
12. Bake for 10 to 15 minutes in a 350° oven. Watch to be sure the pizzas do not burn.

Materials:

Cookie sheet
Can opener
Cheese grater
Cutting board
Knife
Oven
Spoon
Pot holders

Nutritional Info:

Calories: 192
% of calories from fat: 23%
Sugar: 4g
Calcium: 21%
Iron: 12%
Vitamin C: 98%
Vitamin A: 12%

FUN RECIPES TO TRY AT HOME!

Quick Minestrone Soup

A great dinner starter!

Servings of fruits and vegetables: 2

Ingredients:

- ❖ 2 cup mixed frozen vegetables
- ❖ 1 celery stalk
- ❖ 1 15-oz can stewed tomatoes
- ❖ 2¼ cups chicken broth
- ❖ 7½ oz (½ of a 15-oz can) of kidney beans
- ❖ ½ cup dry macaroni noodles
- ❖ ½ large onion

Preparation:

1. Wash hands thoroughly.
2. Drain beans and rinse until water is clear.
3. Chop celery stalk and onion into small pieces.
4. Add all ingredients into pot.
5. Bring to a boil.
6. Cover pot and reduce heat.
7. Simmer for 6 to 8 minutes until pasta is cooked.
8. Spoon into bowls and enjoy.

Materials:

Stove
Large pot
Measuring cups
Cutting board
Knife
Can opener
Pot holders

Nutritional Info:

Serving =
approx. 2 cups

Calories: 229
% of calories from fat: 7%
Sugar: 8g
Calcium: 6%
Iron: 13%
Vitamin C: 24%
Vitamin A: 32%

FUN RECIPES TO TRY AT HOME!

Sweet Potato Chips

Great to munch on all day long!

Makes 4 servings

Ingredients:

- ❖ 2 medium sweet potatoes
- ❖ 1 Tbsp oil
- ❖ 1 tsp Salt
- ❖ 4 Tbsp applesauce
- ❖ 2 Tbsp crushed pineapple
- ❖ 1 Tbsp apricot jelly or orange marmalade

Preparation:

1. Preheat oven to 400°.
2. Wash hands and sweet potatoes thoroughly.
3. Carefully puncture holes in the sweet potatoes with fork and place in small bowl with some water.
4. Microwave on high for 3 minutes, then turn the sweet potatoes over and microwave again for another 3 minutes.
5. Slice sweet potatoes horizontally into chip-sized pieces or vertically into fry-size pieces.
6. Place flat on an oiled or nonstick baking sheet, drizzle with oil, and sprinkle with salt.
7. Flip potatoes over and then repeat the procedure.
8. Place in 400° oven.
9. Turn over every couple of minutes.
10. Combine applesauce, pineapple, and jelly into small dish or saucer. Mix. It's ready for dipping.
11. Chips are done when browned, about 20 minutes.

Materials:

Baking sheet
Pot holders
Small bowl
Cutting board
Knife
Spatula
Oven
Microwave
Fork

Nutritional Info:

*Serving =
approx. ¼ of recipe*

Calories: 141

% of calories from
fat: 23%

Sugar: 10g

Calcium: 2%

Iron: 3%

Vitamin C: 30%

Vitamin A: 131%

FUN RECIPES TO TRY AT HOME!

Tuna Pitas

A tuna sandwich that uses salsa instead of mayonnaise

Makes 4 servings

Ingredients:

- ❖ 1 can tuna
- ❖ 1/3 cup green onions, chopped
- ❖ 1/3 cup salsa (recipe below)
- ❖ 1 can garbanzo beans, drained
- ❖ 1 can tomatoes, chopped
- ❖ 4 pita bread halves

Toppings:

- ❖ shredded low-fat cheese
- ❖ sliced ripe olives
- ❖ 2 cups dark green lettuce, shredded

Salsa:

- ❖ 2 16-oz cans of tomatoes, chopped and drained
- ❖ 1 8-oz can tomato sauce
- ❖ 1/2 cup onion, chopped
- ❖ 2 cloves garlic, minced
- ❖ 2 tsp lemon juice
- ❖ 1 tsp hot peppers (optional)
- ❖ salt and pepper to taste

Preparation:

Toss together tuna filling ingredients and salsa until combined. If time permits, refrigerate filling to allow flavors to blend. Stuff pita and top with toppings.



Health Hints

Choosing a dark green lettuce like romaine rather than a light-colored head lettuce such as iceberg adds more vitamins and minerals to the diet, especially Vitamin A.

More Useful Health Hints

Not only does mayonnaise have more fat and calories than salsa; it will also cause the sandwich filling to spoil more rapidly, possibly leading to food poisoning.