

ENERGIZE YOUR LIFE

GARDENING FOR A HEALTHY YOU!

A series of four lessons designed for adults in a garden setting



WASHINGTON STATE
UNIVERSITY
EXTENSION

Persons with disabilities who require alternative means for communication or program information or reasonable accommodation need to contact XXXXXX at XXX-XXX-XXXX or XXXXXX@wsu.edu at least two weeks prior to the event. USDA and Washington State University are equal opportunity providers and employers. This material was funded by USDA's Supplemental Nutrition Assistance Program. SNAP. The Supplemental Nutrition Assistant Program (SNAP) provides nutrition assistance to people with low income. It can help you buy nutritious foods for a better diet. To find out more, contact: <http://foodhelp.wa.gov> or the Basic Food Program at: 1 877 501 2233.

GARDENING FOR A HEALTHY YOU!

INTRODUCTION

Washington State University (WSU) Master Gardeners are making important contributions to the health of low-income people by emphasizing nutrition as they teach community members how to grow food. Diets high in fruits and vegetables help to improve health and have been shown to reduce the risk of many diseases such as cancer, heart disease, diabetes, and high blood pressure. Gardening increases access to fruits and vegetables and provides the opportunity for increased physical activity.

Gardening for A Healthy You! is a series of four nutrition lessons taught in conjunction with seasonal gardening topics. The lessons include nutrition and healthy living topics that support the 2015 Dietary Guidelines for Americans. Each lesson includes an outline with talking points, activities, resources for the class leader, handouts for the participants and gardening topics relating to the core nutrition concept being taught.

LESSON OBJECTIVES:

1. Participants will identify the recommended daily intake of fruits and vegetables based on the 2015 Dietary Guidelines for Americans.
2. Participants will understand the importance of physical activity for maintaining health and preventing chronic illness as well as the recommended amount of minutes needed daily.
3. Participants will select, grow, and prepare nutritious vegetables that are suited for their climate.
4. Participants will increase fruit and vegetable intake and levels of physical activity.

CONTACT INFORMATION

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POLICIES AND PROCEDURES: WSU MASTER GARDENER VOLUNTEERS

This curriculum was designed to be used in partnership with the WSU Master Gardener (MG) Program. If you are partnering with another organization to provide education around gardening, use your organization's policies to complete an agreement with the volunteers.

A WSU Master Gardener Volunteer SNAP Ed Nutrition Education Agreement is included with this curriculum. If WSU Master Gardeners have been trained and will be teaching nutrition to participants, a signed agreement must be kept on file at your office. If the Program Coordinator for the MG program has designated these lessons as a MG project, the MG volunteers must enter the hours dedicated to this project into the WSU Volunteer data base monthly.

<http://ext.wsu.edu/Volunteers/logon.aspx?ReturnUrl=%2fVolunteers%2fprogramCoordinator%2flistPeople.aspx>

TRAINING:

Volunteer training should be conducted by the local SNAP Ed manager or designee before classes begin.

PARTICIPANT ENROLLMENT: Gardening for a Healthy You! is intended to reach low income individuals. The SNAP Ed manager in your office will provide assistance to ensure the audience meets the requirements for SNAP Ed programming.

To enroll participants:

- Complete enrollment form (F\$-E01)

- Keep on file with the SNAP Ed Manager in your office.

Evaluation:



WSU MASTER GARDENER VOLUNTEER
SNAP ED NUTRITION EDUCATION AGREEMENT



Master Gardener Program

WASHINGTON STATE UNIVERSITY
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Washington State University (WSU) Master Gardeners can make an important contribution to the health of low-income people by teaching nutrition along with gardening. Diets high in fruits and vegetables help to improve human health and reduce the risk of many diseases such as cancer, heart disease, diabetes and high blood pressure.

Gardening increases access to fresh produce and gives an opportunity for increased physical activity. When WSU Master Gardeners teach nutrition as part of WSU SNAP Ed they are required to follow the policies listed below. This agreement will serve as a formal basis for Master Gardener involvement in SNAP Ed.

1. I understand that as a WSU Master Gardener, I may only teach the WSU nutrition education curriculum after I have participated in the training provided by WSU.
2. I understand that as a WSU Master Gardener, I may only provide the nutritional information that is contained in the WSU nutrition education curriculum, current WSU Extension publications and/or other publications recognized as credible by WSU faculty and staff. Nutrition information, curriculum or publications recommended by the United States Department of Agriculture (USDA) are also acceptable nutrition resources.
3. I understand that as a WSU Master Gardener, I may not recommend the use of nutrition and herbal supplements, food additives or diet plans unless they have been recommended by WSU.
4. I understand that as a WSU Master Gardener, I am considered a volunteer representative of WSU. Therefore, WSU will assume liability for my nutrition recommendations, but only if my recommendations are limited to SNAP Ed information recommended by WSU faculty and staff and listed in the WSU nutrition education curriculum, Extension publications or other WSU-approved nutrition references.

____ Yes, as a WSU Master Gardener I will subscribe to the above policies.

____ No, I cannot subscribe to the above policy, and I understand that I therefore cannot provide SNAP Ed Nutrition Education.

SIGNATURE _____ DATE _____

PRINT YOUR NAME _____

GARDENING FOR A HEALTHY YOU!

LESSON ONE

OVERVIEW: AS A GROUP, PARTICIPANTS WILL DISCUSS THE BASIC NUTRIENTS FOR HEALTH AND IDENTIFY THE BENEFITS OF EATING MORE VEGETABLES AND FRUITS. REVIEW THE 2015 DIETARY GUIDELINES AND LEARN HOW TO ESTABLISH A HEALTHY EATING PATTERN. UNDERSTAND THE IMPORTANCE OF HEALTHY SOIL FOR GOOD NUTRITION AND PLANT GROWTH.

OBJECTIVES:

- Understand what humans and plants need for survival.
- Learn the importance of establishing a healthy eating pattern.
- Learn how plants provide us with nutrients.
- Understand the benefits of eating more fruits and vegetables.
- Understand the benefits of regular physical activity.
- Increase the amount of fruits and vegetables eaten daily.
- Identify nutritious vegetables that are easy to grow and prepare.

HANDOUTS:

Healthy Eating Pattern Guide

Nutrient Sandwich

Tracking It: How many Fruits and Vegetables are you eating?

Vegetables for Greater Nutrition

Planning Your Garden

NUTRITION LESSON:

1. Introduction and Ice Breaker

Our bodies do many different things for us every day. Let's name some of the things our bodies do each day.

Instruct class participants to think about all the things our bodies do each day for us. Have them turn to the person next to them and share some functions performed daily and what part of the body is used. After a couple of minutes, ask each pair to share one thing they talked about with the group. Instructor writes these down on white board or flip chart as they are mentioned. Did they mention:

What part of the body is working?

- Breathing - lungs
- Moving - muscles
- Eating - digestive tract
- Thinking - brain
- Pumping blood – heart
- Growing – muscles and bones
- Sleeping -whole body

What does our body need in order to do these different things?

- **Food** provides us **energy** to do all of these different tasks.
 - **Air** provides our body with **oxygen**. Our organs, like our brain, needs oxygen to work.
 - **Water** keeps our blood flowing and regulates our **temperature** to keep it normal.
 - **Exercise** keeps our muscles **strong**, especially our heart.
 - **Sleep** gives our bodies a chance to **rest** and get ready for another day.

PHYSICAL BENEFITS OF GARDENING

Gardening can reduce stress and mental clarity while also helping to prevent everything from coronary disease to colon cancer.

Nature has long been known for its relaxing qualities, as a place for humans to find tranquility and healing. Gardening in particular is associated with mental clarity and feelings of reward, and it has many physical benefits as well. Food gardening can particularly be gratifying and an excellent source of fresh produce.

From soil preparation to the joy of harvesting, there is always a task, big or small, during the growing season! If you have ever spent a summer gardening, you know that these tasks can serve as great exercise.

According to the Centers for Disease Control and Prevention (CDC), moderate-intensity level activity for 2.5 hours each week can reduce the risk for obesity, high blood pressure, type 2 diabetes, osteoporosis, heart disease, stroke, depression, colon cancer and premature death.

Source: Julia Darnton and Lauren McGuire, Michigan State University Extension May 19, 2014

HUMAN BODY AND NUTRIENTS

HANDOUTS

NUTRIENT SANDWICH
NUTRIENT TABLE

Food provides us with many different nutrients. Nutrients are substances that our bodies need to help do all the things that we do each day.

There are six different types of nutrients our bodies need.

CARBOHYDRATE

Carbohydrates are the body's primary source of energy. It acts like kindling for a fire.

FAT

Fat is a second source of energy for the body. It provides energy for sustained activity, like adding a log on the fire.

PROTEIN

Proteins help build and repair body tissues and is the body's third source for energy. It is more like the embers in a fire.

VITAMINS & MINERALS

Vitamins and minerals are important for regulating body functions, and maintaining health. Vitamins and minerals are found in small amounts in foods.

WATER

Water is essential to maintain hydration and normal temperature.



APPLE EARTH

All food can be traced back to the soil. Ask a class member to share what they had for lunch yesterday. Write it on the white board or flip chart. Discuss how that food can be linked back to the soil.

Why is land that is capable of crop production so important? This activity will show why we need to protect the soil so it can provide us with the nutrients we need to live.

1. Slice an apple into quarters. Set aside three of the quarters, as they represent water on the Earth's surface.
2. Cut the remaining quarter in half. Set aside one of the halves as uninhabited deserts, swamps and the Arctic and Antarctic areas.
3. Divide the remaining piece into quarters. Set aside three of the pieces for land that is too rocky, wet, hot or poor for crop production.
4. The remaining piece is $\frac{1}{32}$ nd of the original apple. Peel this section. The peel represents the thin layer of soil that is available for producing all of the world's food crops.

MATERIALS:

- » apples
- » chopping boards or plates
- » knives

PLANTS AND NUTRIENTS NOW LET'S THINK ABOUT PLANTS. WE EAT PLANTS SO WE CAN GROW AND STAY HEALTHY. HOW DO THE PLANTS GET THOSE NUTRIENTS?

- Carbohydrates are made in the leaves through the process of photosynthesis. Carbohydrates include sugars that the plant makes and uses for food; it is a source of energy for the plants.
- Protein and fat are manufactured by plants. Plants make only what they need.
- Minerals are taken up by the plant roots. Plants need minerals to grow.
- Vitamins are made by the plant by using carbohydrate, water, minerals, and sunlight.
- Water is brought to the plant through the roots in the soil. Plants need water to maintain a constant temperature and carry nutrients.

DISCUSSION POINT - WHAT ARE THE SIMILARITIES AND DIFFERENCES?

- Both need water and nutrients to live.
- The human body needs most of their nutrients from outside sources.
- Plants make the carbohydrates they need. The body can make carbohydrate from other food sources – primarily fat.
- Plants make vitamins they need. The human body needs most vitamins from outside sources. The body can convert vitamins into active forms, for example a form of Vitamin D is activated by sunshine on the skin.
- Both plants and the human body use water to regulate temperature.



2015 DIETARY GUIDELINES*

THE *2015-2020 DIETARY GUIDELINES* PROVIDES GUIDANCE FOR CHOOSING A HEALTHY DIET AND FOCUSES ON PREVENTING THE DIET-RELATED CHRONIC DISEASES THAT CONTINUE TO AFFECT OUR POPULATION. ITS RECOMMENDATIONS ARE ULTIMATELY INTENDED TO HELP INDIVIDUALS IMPROVE AND MAINTAIN OVERALL HEALTH AND REDUCE THE RISK OF CHRONIC DISEASE. ITS FOCUS IS DISEASE PREVENTION, NOT TREATMENT.

KEY ELEMENTS OF HEALTHY EATING PATTERNS

An eating pattern is more than the sum of its parts; it represents the totality of what individuals habitually eat and drink, and these dietary components act synergistically in relation to health. As a result, the eating pattern may be more predictive of overall health status and disease risk than individual foods or nutrients. Thus, eating patterns, and their food and nutrient components, are at the core of the *2015-2020 Dietary Guidelines for Americans*. The goal of the *Dietary Guidelines* is for individuals throughout all stages of the lifespan to have eating patterns that promote overall health and help prevent chronic disease.

THE GUIDELINES

1. Follow a healthy eating pattern across the lifespan. All food and beverage choices matter. Choose a healthy eating pattern at an appropriate calorie level to help achieve and maintain a healthy body weight, support nutrient adequacy, and reduce the risk of chronic disease.
2. Focus on variety, nutrient density, and amount. To meet nutrient needs within calorie limits, choose a variety of nutrient-dense foods across and within all food groups in recommended amounts.
3. Limit calories from added sugars and saturated fats and reduce sodium intake. Consume an eating pattern low in added sugars, saturated fats, and sodium. Cut back on foods and beverages higher in these components to amounts that fit within healthy eating patterns.
4. Shift to healthier food and beverage choices. Choose nutrient-dense foods and beverages across and within all food groups in place of less healthy choices. Consider cultural and personal preferences to make these shifts easier to accomplish and maintain.
5. Support healthy eating patterns for all. Everyone has a role in helping to create and support healthy eating patterns in multiple settings nationwide, from home to school to work to communities.



*SOURCE: 2015-2020 DIETARY GUIDELINES FOR AMERICANS

KEY RECOMMENDATIONS*

CONSUME A HEALTHY EATING PATTERN THAT ACCOUNTS FOR ALL FOODS AND BEVERAGES WITHIN AN APPROPRIATE CALORIE LEVEL.

A HEALTHY EATING PATTERN INCLUDES:^[2]

- A variety of vegetables from all of the subgroups—dark green, red and orange, legumes (beans and peas), starchy, and other
- Fruits, especially whole fruits
- Grains, at least half of which are whole grains
- Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products
- Oils

A HEALTHY EATING PATTERN LIMITS:

- Saturated fats and *trans* fats, added sugars, and sodium
Key Recommendations that are quantitative are provided for several components of the diet that should be limited. These components are of particular public health concern in the United States, and the specified limits can help individuals achieve healthy eating patterns within calorie limits:
- Consume less than 10 percent of calories per day from added sugars^[3]
- Consume less than 10 percent of calories per day from saturated fats^[4]
- Consume less than 2,300 milligrams (mg) per day of sodium^[5]
- If alcohol is consumed, it should be consumed in moderation—up to one drink per day for women and up to two drinks per day for men—and only by adults of legal drinking age.^[6]

HEALTHY EATING PATTERNS: DIETARY PRINCIPLES

Healthy eating patterns support a healthy body weight and can help prevent and reduce the risk of chronic disease throughout periods of growth, development, and aging as well as during pregnancy. The following principles apply to meeting the Key Recommendations:

- An eating pattern represents the totality of all foods and beverages consumed.
- Nutritional needs should be met primarily from foods.
- Healthy eating patterns are adaptable.



*SOURCE: 2015-2020 DIETARY GUIDELINES FOR AMERICANS

HEALTHY PHYSICAL ACTIVITY PATTERNS

KEY RECOMMENDATION: MEET THE PHYSICAL ACTIVITY GUIDELINES FOR AMERICANS

In addition to consuming a healthy eating pattern, individuals in the United States should meet the Physical Activity Guidelines for Americans. Regular physical activity is one of the most important things individuals can do to improve their health.

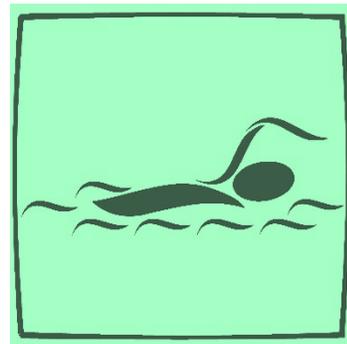
Adults need at least 150 minutes of moderate intensity physical activity and should perform muscle-strengthening exercises on 2 or more days each week. (30 minutes per day)

Youth ages 6 to 17 years need at least 60 minutes of physical activity per day, including aerobic, muscle-strengthening, and bone-strengthening activities.

Establishing and maintaining a regular physical activity pattern can provide many health benefits. Strong evidence shows that regular physical activity helps people maintain a healthy weight, prevent excessive weight gain, and lose weight when combined with a healthy eating pattern lower in calories.

Strong evidence also demonstrates that regular physical activity lowers the risk of early death, coronary heart disease, stroke, high blood pressure, adverse blood lipid profile, type 2 diabetes, breast and colon cancer, and metabolic syndrome; it also reduces depression and prevents falls.

People can engage in regular physical activity in a variety of ways throughout the day and by choosing activities they enjoy. The Physical Activity Guidelines provides additional details on the benefits of physical activity and strategies to incorporate regular physical activity into a healthy lifestyle.



TIPS FOR A HEALTHY EATING PATTERN

A HEALTHY EATING PATTERN INCLUDES:

- A variety of vegetables: dark green, red and orange, legumes (beans and peas), starchy and other vegetables
- Fruits, especially whole fruit
- Grains, at least half of which are whole grain
- Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages
- A variety of lean protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), soy products, and nuts and seeds
- Oils, including those from plants: canola, corn, olive, peanut, safflower, soybean, and sunflower. Oils also are naturally present in whole nuts, seeds, seafood, olives, and avocados.

DRAFT

ACTIVITY SHEET

HOW MANY FRUITS AND VEGETABLES ARE YOU EATING?



For the next 3 days, keep track of how many cups of fruits and vegetables your family eats.

Hint: A cup is about the size of a tennis ball. Use this comparison to estimate cups.



Directions:

List your family members' names, including yourself on the left.

Starting today, put a (✓) check mark under "Day 1" each time you eat one cup of fruit or vegetables. If you eat some fruits or vegetables, but not a whole cup, mark it with (X).

Tomorrow and the next two days complete this chart. On the third day total the fruits and vegetables eaten. Who in your family eats the most fruits? Who eats the most vegetables? Who eat the most fruits AND vegetables? Congratulate the winner for establishing a healthy eating pattern by consuming lots of these important foods daily.

Most Americans can benefit from making small shifts in their daily eating habits to improve their health over the long run. Small shifts in food choices—over the course of a week, a day, or even a meal—can make a difference in working toward a healthy eating pattern that works for you.

| FAMILY MEMBER'S NAMES | Day 1 | | Day 2 | | Day 3 | |
|-----------------------|--------------|--------|--------------|--------|--------------|--------|
| | VEGETABLES ◊ | FRUITS | VEGETABLES ◊ | FRUITS | VEGETABLES ◊ | FRUITS |
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