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Extension - Health and
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IEHA Program Lesson Submission

Author(s) Names and Email(s):	Chrissie Lai lai241@purdue.edu
County Where Author(s) Work:	LaPorte County
Area Where Author(s) Work:	Area 10 - HHS Educator
Phone Number of Author(s):	(219) 324 - 9407
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Topic Description: (Information should be researched, educational, approved for use (if you are not the author, seek approval from materials author), and presented in a format that would allow an individual to read, study, and teach to other peers. All copyright issues should be resolved before submission.)	Vitamin Wisdom for Vital Aging is an educational lesson designed to help older adults understand how nutritional needs change with age and why vitamins play a critical role in supporting healthy aging. The lesson explores common vitamin deficiencies among seniors, highlights key vitamins essential for energy, bone health, immunity, and cognitive function, and provides practical, easy-to-follow strategies for incorporating nutrient-rich foods into daily life. Through discussion and interactive activities, participants are empowered to make informed nutrition choices that support long-term health, vitality, and independence.
Short Goal/Objective Statement for Lesson:	Goal: Support understanding of vitamins for healthy aging. Objective: Build knowledge and confidence in making nutrient-rich food choices.

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VITAMIN WISDOM VITAL AGING

Chrissie Lai

HHS Educator

Purdue Extension LaPorte County

Lesson Objectives

- Understand the changing nutritional needs in older adults.
- Explore the role of essential vitamins in supporting senior health.
- Learn practical tips for incorporating vital nutrients into daily life.

The Power of Nutrition for Seniors

- Nutrition supports healthy aging
- Our bodies' needs change over time
- Vitamins help keep us strong and energized
- Small daily choices matter

Changing Nutritional Needs

How Our Nutrition Needs Change with Age

- Our bodies change as we get older
- Nutrition needs change along with our bodies
- Metabolism, muscle mass, and nutrient absorption can decrease
- Adjusting our diet helps support overall health



Common Vitamin Deficiencies

Recognizing and Addressing Deficiencies

- Explore Prevalent Deficiencies:
 - *Vitamin D*: Commonly deficient in older adults due to reduced sun exposure and decreased skin synthesis.
 - *Vitamin B12*: Declines with age, impacting energy levels and neurological function.
 - *Calcium*: Critical for bone health, deficiency can lead to osteoporosis.



Common Vitamin Deficiencies

Recognizing and Addressing Deficiencies

- The Impact on Overall Health:
 - **Bone Health:** Vitamin D and calcium deficiencies contribute to bone density loss and fractures.
 - **Energy Levels:** Inadequate B12 levels may lead to fatigue and weakness.
 - **Cognitive Function:** B12 deficiency is linked to cognitive decline and neurological issues.
 - **Immune System:** Vitamin D plays a crucial role in immune function.



Common Vitamin Deficiencies

Recognizing and Addressing Deficiencies

- **The Importance of Early Identification:**
 - *Timely Intervention:* Early detection allows for prompt corrective action.
 - *Preventive Measures:* Proactive supplementation or dietary adjustments can prevent health complications.
 - *Healthier Aging:* Addressing deficiencies contributes to a more robust and healthier aging process.

Exploring More Essential Nutrients

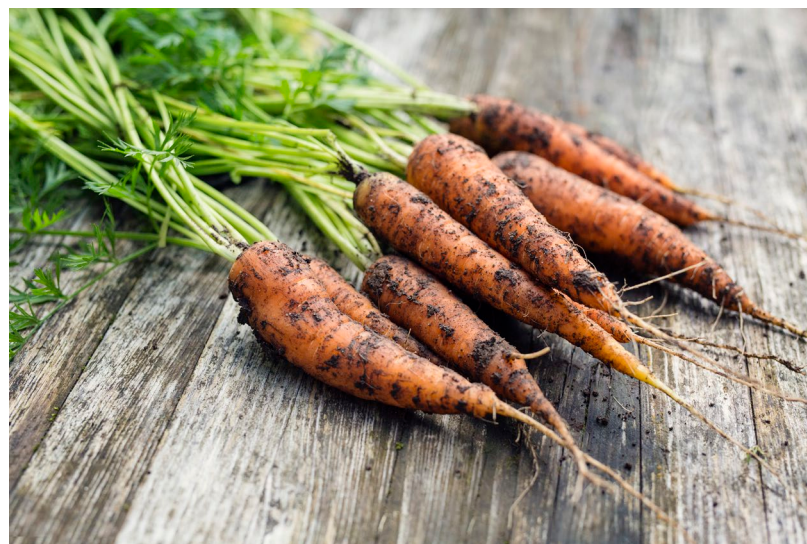
Let's delve into the common essential vitamins...

- **Magnesium** – muscles, nerves, energy
- **Potassium** – fluid balance, muscle function
- **Iron** – oxygen and energy
- **Fiber** – digestion and gut health
- **Omega-3** – heart and brain health
- **Vitamin B6** – brain, immunity, metabolism

Vitamin A: The Visionary Vitamin

Illuminating the Benefits

- **Vitamin A Benefits:**
 - Vision Support
 - Immune Health Boost
 - Skin Integrity Enhancement
- **Food Sources:**
 - Carrots
 - Sweet Potatoes
 - Spinach
 - Mangoes
 - Eggs
- **Supplementation:**
 - Consider if dietary intake is insufficient
 - Consult healthcare professional for personalized advice



Vitamin C: The Immunity Booster

Strengthening the Immune System

- **Vitamin C and Immune Health**
 - Supports a healthy immune system
 - Helps the body fight illness and infection
 - Found in many fruits and vegetables
 - Easy to include in daily meals
- **Food Sources of Vitamin C**
 - Citrus fruits (oranges, lemons, grapefruit)
 - Berries (strawberries, blueberries, raspberries)
 - Vegetables (bell peppers, broccoli, leafy greens)
- **Simple Ways to Get More Vitamin C**
 - Add citrus to meals or drinks
 - Eat colorful fruits and vegetables daily
 - Supplements if needed



Vitamin D: The Sunshine Vitamin

Soaking in the Benefits

- **Vitamin D: The “Sunshine Vitamin”**
 - Supports strong bones
 - Helps with mood and immune health
 - Comes from sunlight and certain foods
 - Safety and balance are important

- **Sources of Vitamin D**
 - Sunlight (safe exposure)
 - Fatty fish (salmon, mackerel)
 - Fortified foods and egg yolks

- **When Sunlight Isn't Enough**
 - Vitamin D supplements may help



Vitamin E: The Antioxidant Ally

Shielding Against Aging

■ Vitamin D: Why It Matters

- Supports strong bones
- Helps with mood and immune health
- Comes from sunlight and certain foods
- Balance and safety are important

■ Sources of Vitamin D

- Sunlight (safe exposure)
- Fatty fish (salmon, mackerel)
- Fortified dairy foods and egg yolks

■ If Sunlight Is Limited

- Vitamin D supplements may help



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Vitamin Bingo !

Get ready for a fun and interactive Vitamin Bingo game that will reinforce what we've learned so far.



Practical Tips for Daily Living



Meal Planning Tips:

- *Balanced Meals*
- *Portion Control*
- *Weekly Planning*

Navigating the Grocery Store:

- *Perimeter Shopping*
- *Read Labels*
- *Shopping List*

Lifestyle Factors for Optimal Health:

- *Hydration*
- *Regular Physical Activity*
- *Mindful Eating*

A Journey Towards Vibrancy

Key Takeaways

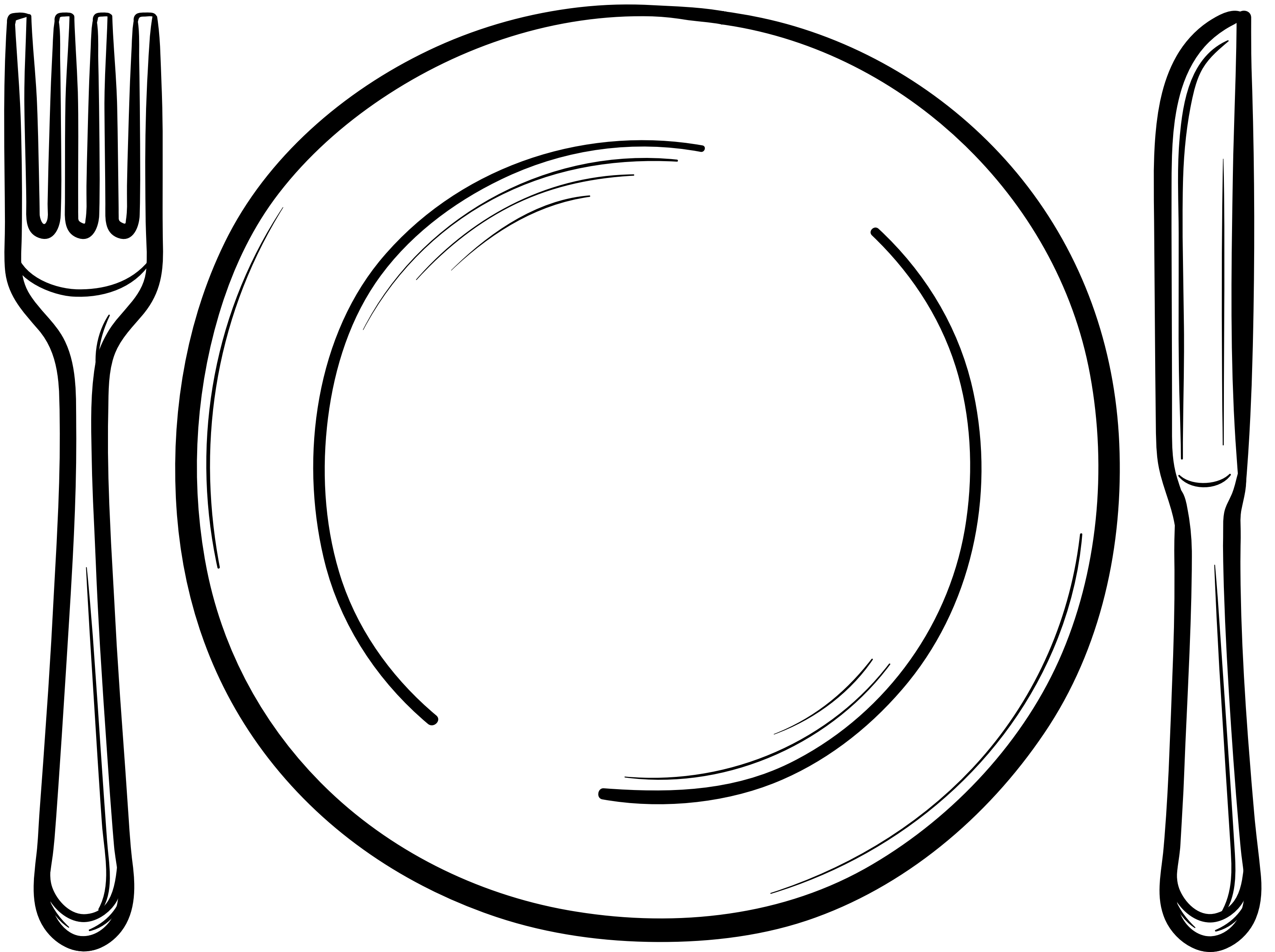
- Nutrition is the foundation of a healthy life
- Vitamins support energy, immunity, and overall well-being
- Small daily choices can make a big difference
- Knowledge helps us make confident, healthy decisions

THANK YOU

Any Questions?

Build Your Plate: A Vitamin-Rich Meal Activity





Build Your Plate: A Vitamin-Rich Meal Activity

Instructions:

- Pick 3–5 foods from the list to create a healthy, balanced meal.
- Write down what vitamins and nutrients your choices provide.
- Share your plate and discuss how it supports energy, bone health, brain function, and immunity.

Vitamins

VITAMIN	WHAT IT DOES	WHERE IT IS FOUND	DAILY VALUE*
Biotin	•Energy storage •Protein, carbohydrate, and fat metabolism	• Avocados • Cauliflower • Eggs •Fruits (e.g., raspberries) • Liver • Pork • Salmon •Whole grains •Beans and peas •Egg yolks •Fish (e.g., cod and salmon) •Liver (e.g., beef and chicken)	30 mcg
Choline	•Brain development •Cell signaling •Lipid (fat) transport and metabolism •Liver function •Muscle movement •Nerve function •Normal metabolism	• Milk • Nuts • Salmon •Soy foods •Vegetables (e.g., broccoli, cauliflower, spinach)	550 mg
Folate/Folic Acid	•Prevention of birth defects •Protein metabolism •Red blood cell formation	• Asparagus • Avocados •Beans and peas •Enriched grain products (e.g., bread, cereal, pasta, rice) •Green leafy vegetables (e.g., spinach) •Oranges and orange juice	400 mcg DFE**



Vitamins (cont'd)

VITAMIN	WHAT IT DOES	WHERE IT IS FOUND	DAILY VALUE*
Niacin	•Cholesterol production •Conversion of food into energy • Digestion •Nervous system function	• Beans • Beef •Enriched grain products (e.g., bread, cereal, pasta, rice) • Nuts • Pork • Poultry • Seafood •Whole grains	16 mg**
Pantothenic Acid	•Conversion of food into energy •Fat metabolism •Hormone production •Nervous system function •Red blood cell formation	• Avocados •Beans and peas • Broccoli • Eggs • Milk • Mushrooms • Poultry • Seafood •Sweet potatoes •Whole grains • Yogurt	5 mg
Riboflavin	•Conversion of food into energy •Growth and development •Red blood cell formation	• Eggs •Enriched grain products (e.g., bread, cereal, pasta, rice) • Meat • Milk • Mushrooms • Poultry •Seafood (e.g., oysters) • Spinach	1.3 mg



Vitamins (cont'd)

VITAMIN	WHAT IT DOES	WHERE IT IS FOUND	DAILY VALUE*
Thiamin	• Conversion of food into energy • Nervous system function	• Beans and peas • Enriched grain products (e.g., bread, cereal, pasta, rice) • Nuts • Pork • Sunflower seeds • Whole grains	1.2 mg
Vitamin A	• Growth and development • Immune function • Red blood cell formation • Reproduction • Skin and bone formation • Vision	• Cantaloupe • Carrots • Dairy products • Eggs • Fortified cereals • Green leafy vegetables (e.g., spinach and broccoli) • Pumpkin • Red peppers • Sweet potatoes	900 mcg**
Vitamin B6	• Immune function • Nervous system function • Protein, carbohydrate, and fat metabolism • Red blood cell formation	• Chickpeas • Fruits (other than citrus) • Potatoes • Salmon • Tuna	1.7 mg
Vitamin B12	• Conversion of food into energy • Nervous system function • Red blood cell formation	• Dairy products • Eggs • Fortified cereals • Meat • Poultry • Seafood (e.g., clams, trout, salmon, haddock, tuna)	2.4 mcg



Vitamins (cont'd)

VITAMIN	WHAT IT DOES	WHERE IT IS FOUND	DAILY VALUE*
Vitamin C	• Antioxidant • Collagen and connective tissue formation • Immune function • Wound healing	• Fruit (e.g., cantaloupe, citrus fruits, kiwifruit, and strawberries) • Juices (e.g., oranges, grapefruit, and tomato) • Vegetables (e.g., broccoli, Brussels sprouts, peppers, and tomatoes)	90 mg
Vitamin D <i>Nutrient to get more of</i>	• Blood pressure regulation • Bone growth • Calcium balance • Hormone production • Immune function • Nervous system function	• Beef liver • Egg yolks • Fish (e.g., flounder, herring, salmon, trout, and tuna) • Fish oil and cod liver oil • Fortified dairy products • Fortified orange juice • Fortified soy beverages • Fortified ready-to-eat cereals • Mushrooms	20 mcg**
Vitamin E	• Antioxidant • Formation of blood vessels • Immune function	• Fortified cereals and juices • Green vegetables (e.g., spinach and broccoli) • Nuts and seeds • Peanuts and peanut butter • Vegetable oils	15 mg**
Vitamin K	• Blood clotting • Strong bones	• Green vegetables (e.g., broccoli, kale, spinach, turnip greens, collard greens, Swiss chard, mustard greens)	120 mcg

*The Daily Values are reference amounts of nutrients to consume or not to exceed each day.

** Units of measurement have been updated. For more information, visit: <https://go.usa.gov/xVvT3>.



Minerals

MINERAL	WHAT IT DOES	WHERE IT IS FOUND	DAILY VALUE*
Calcium <i>Nutrient to get more of</i>	• Blood clotting • Bone and teeth formation • Constriction and relaxation of blood vessels • Hormone secretion • Muscle contraction • Nervous system function	• Canned seafood with bones (e.g., salmon and sardines) • Dairy products • Fortified orange juice • Fortified soy beverages • Fortified ready-to-eat cereals • Green vegetables (e.g., kale, broccoli, and collard greens) • Tofu (made with calcium sulfate)	1,300 mg
Chloride	• Acid-base balance • Conversion of food into energy • Digestion • Fluid balance • Nervous system function	• Olives • Rye • Salt substitutes • Seaweeds (e.g., dulse and kelp) • Table salt and sea salt • Vegetables (e.g., celery, lettuce, and tomatoes)	2,300 mg
Chromium	• Insulin function • Protein, carbohydrate, and fat metabolism	• Broccoli • Fruits (e.g., apples and bananas) • Juices (e.g., grape and orange) • Meat • Spices (e.g., garlic and basil) • Turkey • Whole grains	35 mcg
Copper	• Antioxidant • Bone formation • Collagen and connective tissue formation • Energy production • Iron metabolism • Nervous system function	• Chocolate and cocoa • Crustaceans and shellfish • Lentils • Nuts and seeds • Organ meats (e.g., liver) • Whole grains	0.9 mg



Minerals (cont'd)

MINERAL	WHAT IT DOES	WHERE IT IS FOUND	DAILY VALUE*
Iodine	• Growth and development • Metabolism • Reproduction • Thyroid hormone production	• Breads and cereals • Dairy products • Iodized salt • Potatoes • Seafood • Seaweed • Turkey	150 mcg
Iron <i>Nutrient to get more of</i>	• Energy production • Growth and development • Immune function • Red blood cell formation • Reproduction • Wound healing	• Beans, peas, and lentils • Eggs • Fruits (e.g., raisins and cantaloupe) • Green vegetables (e.g., asparagus, beet greens, broccoli, spinach, and swiss chard) • Meat • Nuts • Organ meats (e.g., liver) • Poultry • Seafood (e.g., crab, clams, sardines, shrimp, and oysters) • Seeds • Soy products (e.g., tofu) • Whole grain, enriched, and fortified breads, cereals, pasta, and rice	18 mg
Magnesium	• Blood pressure regulation • Blood sugar regulation • Bone formation • Energy production • Hormone secretion • Immune function • Muscle contraction • Nervous system function • Normal heart rhythm • Protein formation	• Avocados • Beans and peas • Dairy products • Fruits (e.g., bananas and raisins) • Green leafy vegetables (e.g., spinach) • Nuts and pumpkin seeds • Potatoes • Whole grains	420 mg



Minerals (cont'd)

MINERAL	WHAT IT DOES	WHERE IT IS FOUND	DAILY VALUE*
	• Carbohydrate, protein, and cholesterol metabolism • Cartilage and bone formation • Wound healing	• Beans • Nuts • Pineapple • Spinach • Sweet potato • Whole grains	2.3 mg
Molybdenum	• Enzyme production	• Beans and peas • Nuts • Whole grains	45 mcg
Phosphorus	• Acid-base balance • Bone formation • Energy production and storage • Hormone activation	• Beans and peas • Dairy products • Meat • Nuts and seeds • Poultry • Seafood • Whole grain, enriched, and fortified cereals and breads	1,250 mg
Potassium <i>Nutrient to get more of</i>	• Blood pressure regulation • Carbohydrate metabolism • Fluid balance • Growth and development • Heart function • Muscle contraction • Nervous system function • Protein formation	• Beans • Dairy products (e.g., milk and yogurt) • Fruits (e.g., apricots, bananas, kiwifruit, cantaloupe, and grapefruit) • Juices (e.g., carrot and other vegetables juices, orange, pomegranate, and prune) • Seafood (e.g., clams, pollock, and trout) • Tomato products • Vegetables (e.g., potatoes, sweet potatoes, beet greens, and spinach)	4,700 mg



Minerals (cont'd)

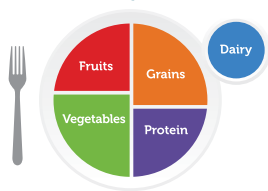
MINERAL	WHAT IT DOES	WHERE IT IS FOUND	DAILY VALUE*
Selenium	• Antioxidant • Immune function • Reproduction • Thyroid function	• Eggs • Enriched pasta and rice • Meat • Nuts (e.g., Brazil nuts) and seeds • Poultry • Seafood • Whole grains	55 mcg
Sodium <i>Nutrient to get less of</i>	• Acid-base balance • Blood pressure regulation • Fluid balance • Muscle contraction • Nervous system function	• Deli meat sandwiches • Pizza • Burritos and tacos • Soups • Savory snacks (e.g., chips, crackers, popcorn) • Poultry • Pasta mixed dishes • Burgers • Egg dishes and omelets	2,300 mg
Zinc	• Growth and development • Immune function • Nervous system function • Protein formation • Reproduction • Taste and smell • Wound healing	• Beans and peas • Beef • Dairy products • Fortified cereals • Nuts • Poultry • Shellfish • Whole grains	11 mg

*The Daily Values are reference amounts of nutrients to consume or not to exceed each day.





Start *simple*
with **MyPlate**



Healthy Eating for Older Adults

Healthy eating is important at every age. Eat a variety of fruits, vegetables, grains, protein foods, and dairy or fortified soy alternatives. When deciding what to eat or drink, choose options that are full of nutrients and limited in added sugars, saturated fat, and sodium. Start with these tips:



Make eating a social event

Enjoy meals with friends or family members as often as possible. Take advantage of technology to enjoy meals virtually with loved ones in different cities or States.



Drink plenty of liquids

You may not always feel thirsty when your body needs fluids, and that's why it's important to drink beverages throughout the day. Enjoy coffee and tea if you like, or some water, milk, or 100% juice.



Add a touch of spice

Limiting salt is important as you get older. Fresh and dried herbs and spices, such as basil, oregano, and parsley, add flavor without the salt.



Make the most of your food choices

Older adults need plenty of nutrients but fewer calories, so it's important to make every bite count. Foods that are full of vitamins and minerals are the best way to get what you need.



Be mindful of your nutrient needs

You may not be getting enough nutrients such as calcium, vitamin D, potassium, dietary fiber, vitamin B12, and also protein. Read the [Nutrition Facts label](#) on packaged foods and also speak with your healthcare provider about possible supplements.



Keep food safe

Discard food if it has an “off” odor, flavor, or texture. Refer to the “use by” dates for a guide to freshness. Canned or frozen foods store well if shopping trips are difficult.



THE TOP 10 MICRONUTRIENTS FOR AGING WELL

Nutrition experts at the Linus Pauling Institute have identified **10 vitamins and minerals** that are needed the most for optimal health. Many people in the U.S. do not consume enough of these in their diet.

Getting enough of these nutrients is especially important to maintain good health in adults over



CREATE A NUTRIENT-RICH DIET



Vitamins and minerals (called micronutrients) come from the foods that you eat. Eating foods high in vitamins and minerals helps keep you healthy.

In the chart below, you'll find examples of foods that are excellent sources of each micronutrient. Aim to eat a variety of these foods on most days.



To help address any nutrient gaps, the **Linus Pauling Institute recommends that all adults take a daily multivitamin.** This multivitamin should have 50-100% of the DV (Daily Value) for most vitamins and minerals.

FOR MORE INFORMATION

For more about vitamins, minerals, and other dietary factors, check out the **[Micronutrient Information Center](#)**



You can read about the functions and health effects of nutrients and find intake recommendations for every life stage.



Oregon State University
Extension Service



Oregon State University
Linus Pauling Institute

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NUTRIENT	WHERE IS IT FOUND?	WHAT ELSE SHOULD I KNOW?	HOW DOES IT SUPPORT HEALTH?
Vitamin B ₆ 50+	Meat, poultry, fish, nuts, bananas, and potatoes	Vitamin B ₆ absorption can decline with age. Inflammation might influence your vitamin B ₆ status.	  
Vitamin B ₁₂ 50+	Meat, poultry, fish, eggs, and some dairy products	Poor vitamin B ₁₂ absorption is common in older adults and in those taking certain medications (such as antacids and metformin). Older adults should take supplements.	 
Vitamin C 50+	Berries, citrus fruit, kiwifruit, bell peppers, Brussels sprouts, and broccoli	Vitamin C content is reduced when foods are cooked or otherwise processed. The best sources are raw or lightly cooked foods.	    
Vitamin D 50+	Salmon, dairy products, and some mushrooms	Ask your healthcare provider to check the level of vitamin D in your blood. The LPI recommends maintaining blood levels of 30 ng/mL or higher.	   
Vitamin E	Avocados, olives, nuts, seeds, vegetable oils, and green leafy vegetables, such as kale and spinach	Synthetic vitamin E (dl-alpha on labels) is not as bioavailable as natural vitamin E (d-alpha).	   
Vitamin K 50+	Kale, chard, broccoli, spinach, parsley, and fermented foods, such as yogurt and kimchi	Large quantities of vitamin K from foods or supplements can interfere with medications involved with blood clotting, such as warfarin.	  
Calcium 50+	Dairy products, sardines, broccoli, almonds, and calcium-fortified juices and plant-based milks	Focus on food sources to meet your calcium needs. Multivitamins typically contain little calcium.	 
Magnesium 50+	Broccoli, beans, peanuts, nuts, spinach, and whole grains, such as brown rice	Adults shouldn't take more than 350 mg/day of supplemental magnesium. High doses of supplemental magnesium can cause diarrhea and/or kidney damage.	  
Potassium	Most fruit and vegetables, beans and lentils, white and sweet potatoes with skin, yogurt, and fish	Eat at least five servings of fruit and vegetables each day to meet your potassium needs. Avoid fried food sources, such as chips or french fries.	  
Zinc 50+	Meat, poultry, shellfish, dairy products, nuts, and beans and other legumes	Beans, seeds, nuts, and grains have compounds that can reduce the amount of zinc your body can absorb, but these are still relative ly good sources of zinc.	 

LEGEND

50+
 If you are over the age of 50, pay special attention to these nutrients.


 Fluid balance and blood pressure


 Cognitive health


 Immune health


 Muscle and nerve function


 Bone health


 Wound healing


 Skin health