



Vitamin, Mineral, and Fish Oil Supplements

Getting Started

1. Review lesson plan before each session.
2. Copy handouts and follow-up questions as needed for your audience:
3. Gather supplies needed for lesson and activities.

Supplies Needed

1. Handouts.
2. Assorted supplement bottles for activity.

Beginning the Lesson

1. Introduce yourself by name and the organization you represent.
2. Summarize the lesson by giving the objectives. Let the group know the lesson will be informal and they can ask questions anytime.

Objectives – The participants will:

1. Be able to determine if they may benefit from a nutritional supplement.
2. Understand how to choose the best nutritional supplement.
3. Understand the need for crystalline vitamin B12 after the age of 50 and where to find it.
4. Understand how to read a supplement label.



Activity

*Notes for the educator: Do this activity after you have gone over the lesson and handouts so as to reinforce the information you have gone presented. Show examples of supplement bottles. Talk about the information on them and how it compares to guidelines on the handouts. For example, if you have a calcium supplement bottle, point out where you can find the % Daily Value the calcium supplement contains on the label. **The Daily Value (DV), used for labeling foods, is set to meet the average daily nutrient needs of most healthy individuals, but is not always the recommended intake for older people.** It is OK to exceed the Daily Value for some nutrients, such as for calcium, vitamin D, and vitamin B12, because older people have high needs for these nutrients. Also, emphasize that vitamins and minerals are in the food that we eat, so it is important to eat a variety of foods from MyPyramid.*

Notes for the educator:

Here are some facts about these nutrients for older people:

Calcium: Daily Value is 1000 mg, Adequate Intake is 1,200 mg, and Upper Level is 2,500 mg.

Vitamin D: Daily Value is 400 IU (25 mcg), The 2005 Dietary Guidelines is 1000 IU, and Upper Level is 2,000 IU.

Vitamin B12: Daily Value is 6 mcg, the Recommended Dietary Allowance is 2.4 mcg as crystalline, and there is no Upper Level.

Vitamin E: Daily Value is 30 IU, the Recommended Dietary Allowances are 15 mcg for men and 15 mcg for women, the amount that might have health benefits is 200 IU to 400 IU, and the Upper Level is 1,000 IU. The “d alpha” form is the recommended chemical form in dietary supplements. It is more expensive, but is better utilized by the body. Conversions between mcg and IU depend on the chemical form of vitamin E; therefore, for the purposes of this lesson, it is acceptable to consider 1 mcg = 1 IU.

Fish oils: Contain omega-3 oils and have been linked with fewer adverse cardiovascular outcomes. Current research suggests that fish and fish oil may be more effective in providing the cardioprotective fatty acids than are plant sources (e.g., flax). However, more research is needed. One to three grams daily of fish oil is recommended for those who do not eat at least 8 ounces of fatty fish weekly, such as salmon, trout or herring.

Vitamin K: Daily Value is 80 mcg, the Recommended Dietary Allowances are 120 mcg for men and 90 mcg for women, supplements for older people typically have low levels, and there is no Upper Level.



Script

There are a few points to remember when you choose a supplement, especially if you are over age 50. First of all, always talk with your doctor about taking these supplements, which may have health benefits: a multivitamin/mineral, calcium, vitamin D, vitamin E, and fish oil.

If you plan your diet carefully to include milk-products, small amounts of vegetable oils, lean meats such as beef, poultry, and pork, fatty fish, and fortified foods (such as cold breakfast cereals with vitamin B12 and calcium-fortified orange juice), you will get most of the vitamins and mineral you need. However, even older people who eat healthy, may not get enough calcium, vitamin D, vitamin E, and fish oils. Thus, carefully selected supplements can help ensure getting the vitamins, minerals, and fish oils needed for optimal health.

Review the handouts and discuss the functions, sources and recommendations for each of the nutrients listed. You might choose to talk about all of the vitamins and minerals included in this lesson or just one or two at a time.



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Do you Need a Nutrient Supplement?

You may need nutrient supplements if you do any of these:

- Eat a low-calorie weight loss diet or are losing weight without wanting to.
- Are eating fewer than two meals per day.
- Do not eat three servings of milk-products daily.
- Have a disease of your digestive track and can't absorb certain nutrients.
- Smoke, because smoking lowers vitamin C levels in the body.
- Drink three or more alcoholic beverages most days.

Tips for choosing and storing dietary supplements:

- Talk with your doctor for advice, tell your doctor what you are taking, and do not self-prescribe.
- Buy from a trusted source, such as a local pharmacy or grocery store.
- Buy common name brands or store brands.
- Avoid buying supplements from the internet.
- Choose supplements with close to 100% of the Daily Value for most nutrients. It is OK to exceed the Daily Value for calcium, vitamin D and vitamin B12, because older people have high needs for these nutrients.
- Check expiration dates and look for the initials "USP" which means the supplement meets certain quality standards.
- Be very cautious with "herbal" supplements. Ask your doctor for advice and tell your doctor what you are taking.
- Stop taking "herbals" before surgery, because many promote bleeding.
- Store supplements in a safe place away from children.



Supplements for Healthy Aging

1. Multivitamin/mineral with vitamin D (400 IU) and vitamin B12 (at least 12 mcg). Most multivitamin/mineral supplements have other important nutrients such as vitamin C.
2. Calcium supplements providing 200 mg to 900 mg depending on your intake of dietary calcium. Milk and yogurt have about 300 mg of calcium per cup. Most multivitamin/mineral supplements have little calcium. Total calcium from diet and supplements should be 1,200 mg and should not exceed 2,500 mg daily.
 - ___ If you consume no milk or yogurt, then consider taking supplements to provide about 800 mg to 900 mg of calcium daily.
 - ___ If you consume about one cup of milk or yogurt daily, then consider taking a supplement with 500 mg to 600 mg of calcium.
 - ___ If you consume about two cups of milk or yogurt daily, then consider taking a supplement with 200 mg to 300 mg of calcium daily.
 - ___ If you consume about three cups of milk and/or yogurt daily, then you probably don't need a calcium supplement.
3. Vitamin D supplements of up to 1,000 IU, depending on the intake of vitamin D from other sources. Milk has 100 IU of vitamin D per cup. Most yogurts do not have vitamin D and most other foods have very little vitamin D. The total vitamin D from diet and supplements should be about 1,000 IU daily and should not exceed 2,000 IU daily, unless directed to by your doctor.
 - ___ If you don't drink milk and don't take a multivitamin, then consider taking one tablet with 1,000 IU of vitamin D daily.
 - ___ If you drink no milk and take a multivitamin with 400 IU of vitamin D, then consider taking two tablets with 400 IU of vitamin D daily.
 - ___ If you drink one or two glasses of milk daily and take a multivitamin with 400 IU of vitamin D, then consider taking one tablet with 400 IU of vitamin D daily.
4. Fish oil supplement if you don't eat at least 8 ounces of fatty fish weekly, such as salmon. 1 to 3 grams of fish oil daily is about right for most people.
5. Vitamin E supplements are controversial. Some, but not all, studies show they help the heart, immunity, memory, and dementia. Taking 200 IU to 400 IU daily is safe for most people and may have health benefits. Choose a vitamin E supplement with "d alpha" on the label, because it is easily used by the body.



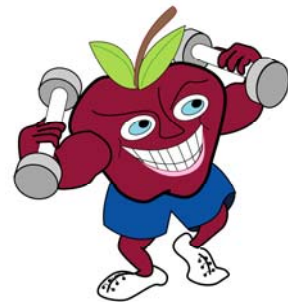
Dietary Supplement Misuse Among Older Adults

You may be misusing dietary supplements if you:

- ___ Think that taking a dietary supplement means you don't have to eat healthy or be physically active. Instead: eat a wide variety of healthy foods, be physically active everyday, and choose supplements wisely.
- ___ Replace prescription medications or therapy with a dietary supplement. Instead: follow your doctor's recommendations.
- ___ Buy supplements from the internet. Instead: buy from a trusted local pharmacy or grocery store.
- ___ Take more than recommended on the label. Instead: follow label instructions.
- ___ Take supplements with meaningless claims, such as "cure-all," "energy booster," "exclusive formula," "all natural," "weight-loss formula." Instead: consider taking the supplements listed below that may have health benefits.

You are using dietary supplements wisely if you:

- ___ Talk with your doctor about the right supplements for you.
- ___ Stop taking herbal supplements before surgery.
- ___ Use supplements and eat healthy and exercise daily.
- ___ Take no more than one multivitamin/mineral supplement daily.
- ___ Take calcium supplements if you don't consume three cups of milk or yogurt daily. Take up to 900 mg of calcium supplements daily, but no more than 2,500 mg daily from foods and supplements.
- ___ Take supplements with up to 1,000 IU of vitamin D daily, but no more than 2,000 IU daily from foods and supplements.
- ___ Take up to 200 IU to 400 IU of vitamin E supplements daily, but no more than 1,000 IU daily.
- ___ Take 1 to 3 grams of fish oil daily, if you don't eat at least 8 ounces weekly of fatty fish, such as salmon or trout.



Talk with your doctor to be sure you are using supplements wisely and safely!



Calcium

What it Does

- Keeps bones and teeth healthy
- Keeps nerves healthy
- Buffers acid in stomach
- May help prevent cancer, high blood pressure, diabetes and other age-related disorders

Food Sources -

- Milk-products: milk, yogurt
- Canned fish with bones
- Calcium-fortified tofu or soy
- Calcium-fortified cereal and juice



Recommendations

- 1,200 mg calcium from diet plus supplements is needed each day, but do not exceed 2,500 mg
- If you eat no milk products, then dietary intake is only about 300 mg
- Add 300 mg for each cup of milk or yogurt
- Usual supplement need is 200 mg to 900 mg daily
- Calcium carbonate and calcium citrate are well-tolerated by most people
- Take up to 500 mg at once, or less, with plenty of water
- Follow label instructions for taking with or without food



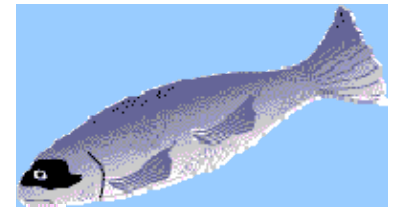
Vitamin D

What it Does

- Essential for bones and teeth
- Helps the body absorb calcium
- Helps immune function
- May help protect against some cancers, heart disease, diabetes, and auto-immune diseases

Food Sources

- Vitamin D-fortified milk
- Salmon and other fish and seafood
- Very small amounts are in some breakfast cereals, margarine, other foods



Recommendations

- 1,000 IU vitamin D from diet plus supplements is needed each day, but do not exceed 2,000 IU
- Dietary intake, without milk, is about 100 IU daily
- Milk has 100 IU
- Most multivitamins have 400 IU
- Supplements are available in 400 IU or 1,000 IU tablets
- For example, those who consume one multivitamin and one cup milk, need an additional 400 IU vitamin D supplement





Vitamin C

What it Does

- Helps immunity
- Increases calcium and iron absorption
- Helps heal wounds, burns, broken bones

Food Sources

- Citrus fruits or 100% fruit juice, (oranges and grapefruits)
- Tropical fruits
- Broccoli
- Cabbage
- Collards
- Tomatoes



Recommendations

- Women need 75 mg, men need 90 mg, and smokers need an extra 35 mg daily from diet plus supplements, but do not exceed 2,000 mg daily
- Most multivitamins provide vitamin C, so additional supplements are not needed in those who consume plenty of fruits and vegetables
- Avoid “high potency” supplements





Vitamin E

What it Does

- Antioxidant
- May help immunity, heart, memory, and dementia

Food Sources

- Broccoli
- Canola oil
- Corn
- Corn oil/margarine
- Fortified cereals
- Nuts



Recommendations

- Typical foods have many healthy forms of vitamin E, but provide only about half of the minimum needed
- Most multivitamins provide about 30 IU
- Additional health benefits may come from supplements of 200 IU to 400 IU daily
- Choose the “d alpha” form, which the body easily uses
- Do not exceed 1,000 IU daily



Vitamin B12

What it Does

- Keeps the brain, heart, eyes, blood cells, and other organs healthy

B12 Deficiency Causes:

- Weakness and fatigue
- Numbness and tingling in hands and feet
- Confusion
- Loss of memory

Food Sources

- Meat, poultry, fish, liver
- Milk and other milk products
- People lose some ability to absorb vitamin B12 from protein foods as they age
- So, fortified foods with crystalline vitamin B12 are recommended (e.g., some cereals)



Recommendations

- Consume crystalline vitamin B12 from fortified foods such as breakfast cereal and/or a multivitamin
- At least 12 mcg daily may help prevent future development of vitamin B12 deficiency
- People diagnosed by their doctor with vitamin B12 deficiency will need higher amounts of vitamin B12, so follow your doctor's recommendations



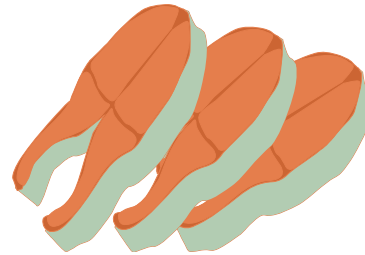
Fish and Fish Oils

What it Does

- Provides omega-3 fats
- Helps keep heart, blood vessels, and brain healthy

Food Sources

- Fatty fish such as salmon, trout, herring
- Smaller amounts in other fish



Recommendations

- Consume 8 ounces of fatty fish weekly
- For those who don't eat fatty fish weekly, then ask your doctor about taking fish oil supplements
- About one to three grams of fish oil supplements helps lower the risk of heart disease and may also protect the brain
- Higher amounts of fish oil may help lower blood triglycerides (ask your doctor about this)
- Buy supplements from a trusted source, such as your local pharmacist or grocery store



Vitamin K

What it Does

- Blood clotting
- Heart health
- Bone health

Food Sources

- Green vegetables
- Vegetable oils



Recommendations

- Consume one serving green vegetables daily to provide vitamin K
- A serving is ½ cup cooked vegetables or 1 cup raw leafy greens
- If you take blood thinners (e.g. Coumadin, warfarin), then:
 - Eat the same amount of green vegetables each day
 - Use multivitamins marketed to older people that usually have moderate amounts of vitamin K
 - Don't completely avoid vitamin K, which may cause vitamin K deficiency and/or a high sensitivity to vitamin K-containing foods and supplements



Vitamin, Mineral, and Fish Oil Questions

Date:	County:
Name:	Age:

Please circle your answers.

1. I eat at least three cups of milk daily food everyday.

No Yes

2. I eat at least seven to ten fruits and vegetables everyday.

No Yes

3. I eat a cold breakfast cereal everyday.

No Yes

4. Circle one statement that is true for you:

-I already take a multivitamin/mineral supplement

-I probably need a multivitamin/mineral supplement

-I probably don't need a multivitamin/mineral supplement

5. I learned something new today.

No Yes