West Virginia Bureau of Senior Services

Food and Fitness

March 2023 Volume 248



Nutritional Needs for Bone Health

Bone health is incredibly important. An adult human has 206 bones in the internal skeleton. Bones give the body shape, support, protects certain organs, and produces blood cells. The bones also play a role in storing and releasing fat and minerals. What role does nutrition have in supporting bones?

Vitamin D and calcium are the two most common vitamins and minerals that are known for supporting bone health. Calcium is the mineral that maintains bone strength to its fullest potential. However, it cannot be done if the body does not have enough vitamin D.

When you hear the term bone density, it is referring to the amount of calcium and other minerals

in the bone. More than 98% of the calcium in the body is found in the bones. Not only do the bones need calcium, but so do the nerves, muscles, and hormones. If you are not getting enough calcium in your diet, the body will respond by taking it from the bones. When the body takes calcium from the bones, it weakens the bones and causes problems with bone density.

Bones are constantly having old bone material being reabsorbed and new bone material formed, this process is very long. For the process to renew an entire body of bone, it can take about 10 years. This is why bone health is important throughout your entire lifespan.



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Nutritional Needs for Bone Health

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The amount of calcium an individual needs depends on their age and gender. The human body cannot make calcium, so it has to get calcium from either food or supplements. Foods like dairy products, fortified juices, and fortified cereals are at the top of the list for calcium sources. Other sources of calcium are dark leafy vegetables, seeds, soy beans, flour tortillas, leans and lentils, almonds, edamame, tofu, figs, and rhubarb.

As for vitamin D, it has a few different jobs. It aids in the absorption of calcium and phosphorus from the digestive system for bone health. Even if you are getting enough calcium to support bone health, it has to be in combination with getting enough vitamin D. Without the help of vitamin D, only about 15-20% of calcium from your foods get absorbed in the digestive tract. When you are not absorbing enough calcium (can be from not getting enough calcium or by not getting enough vitamin D to absorb the calcium), this is when the body will slowly start to take calcium out of the bones which creates bone loss.

It is very common for most people to not get enough vitamin D, because it does not have a large list of sources like many other vitamins. Often, people have to determine whether or not a vitamin supplement is right for them.

Sources of vitamin D are sunlight, fortified milk, fortified breakfast cereal, fortified orange juice, egg yolks, beef liver, mushrooms, and fatty fish. Vitamin D is unique because of the sunlight portion. About 15 minutes of sunlight, without sun-

screen, a few times a week, can allow your body to produce enough vitamin D. However, it is also important to protect your skin because too much sunlight can cause skin cancer. In the colder months, getting enough sunlight can also be a challenge.

Many other factors can contribute to bone health. The mineral magnesium is also important for bone health. Deficiency in magnesium can be linked to decreased bone health. Other risks for decreased bone health is lack of exercise, family history, and smoking. When talking about bone health, keeping bones heathy is a must as aging occurs.

Recommended Daily
Amount—CalciumMen51-70: 1,000 mg71 and older 1,200 mgWomen51 and older 1,200 mg

<u>Recommended Daily</u> Amount—Vitamin D

Adults 19-70 years old 600 UI

71 years and older 800 UI

How Can I Keep My **Bones Strong?**



American Society for Nutrition Excellence in Nutrition Research and Practice www.nutrition.org

The foods you eat can affect your bones. Eating a healthy diet and being physically active helps keep bones strong.

Why are strong bones important?

Each year about one-third of people over age 65 will fall. Many of these falls result in broken bones. As you get older, you lose some bone mass. Eating a healthy diet helps prevent bone loss and reduces your risk of fracture.

What should I do to keep my bones strong?

- Eat a variety of foods. Include:
 - Vegetables
 - Fruits
 - Whole grains like whole wheat bread, oatmeal and guinoa
 - Low or non-fat dairy products like milk and yogurt
 - Nuts and seeds
 - Eggs and tofu
 - Fish, chicken and lean beef
- Eat foods high in:
 - Calcium
 - Vitamin D
 - Magnesium
 - Protein
- Do physical activities like:
 - Walking, yoga, dancing, basketball, soccer, karate, running, tennis
- Avoid smoking

FOOD SOURCES OF CALCIUM

- Low or non-fat milk
- Low or non-fat voaurt
- Cheese
- Tofu
- Sardines, with bones
- Kale
- Collards
- Cabbage
- Broccoli
- Fortified juice
- Almonds

FOOD SOURCES OF VITAMIN D

- Low or non-fat milk, fortified
- Salmon
- Mackerel
- Sardines
- Mushrooms
- Cereal.
 - fortified
- Fortified juice

FOOD SOURCES OF MAGNESIUM

- Whole grains
- Nuts and seeds
- Beans
- Avocado
- Eggs
- Tofu
- Sweet potato
- Tomatoes and tomato products
- Dark chocolate



FOOD SOURCES OF PROTEIN

- Low or non-fat
- Fish, chicken and lean beef



MORE ABOUT BEANS

Beans contain many bone healthy nutrients. But, they are also high in phytates. Phytates keep your body from absorbing calcium. To cut down on the phytate level:

- Soak beans in water for a few hours
- Drain the beans
- Cook the beans in fresh water



WHAT DOES FORTIFIED MEAN?

Fortified means a food has extra vitamins and minerals added. Some foods have extra calcium or vitamin D added to them. These foods include cereal, fruit juice and milk.



continued on reverse

Fruit—Lime

Limes are a citrus fruit that belong in the Rutaceae family. Wild limes are believed to have been from Indonesia or in Asia. Christopher Columbus took seeds to the West Indies in 1493. It is believed he took citrus seeds that might have included the lime. Those seeds were distributed to the West Indies, Mexico, and Florida. In these times, citrus fruits were very important to the British navy to prevent scurvy due to the amount of vitamin C they contained.

There are several different types of limes. The most common are Persian limes and key limes. The key limes are smaller and are sometimes called Mexican limes. When compared to a lemon, the lime usually contains more acid and sugar. Most limes contain citric acid. Citric acid is often used in sweets and in soft drinks for flavoring but it also gives the product stability.

Limes are mostly grown in the tropical and subtropical areas. The lime tree can get more than 16 feet high. If the tree is not properly pruned, it takes on the appearance of a large shrub. The leaves of the lime tree are evergreen and are a pale green color. The flowers are white and form in clusters. The fruit grows to about 1.5

inches in diameter and are oval in shape.

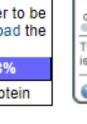
Limes are often used for pickling, flavored drinks, sweets, and other foods. The flavor is different than a lemon. The pulp is a yellowish green color, tender, juicy, and acidic. Limes, as well as most citrus fruits, are known to contain vitamin C. One lime contains about 30% of an individual's daily needs for vitamin C and 8% for dietary fiber.

Caloric Ratio Pyramid @ What is this?

Caloric Ratio Pyramid for Limes, raw

This feature requires Flash player to be installed in your browser. Download the player here.

| 86% | 6% | 8% |
|-------|------|---------|
| Carbs | Fats | Protein |











| NutritionData's Opinion | What is this? |
|----------------------------|---------------|
| Weight loss: | ***** |
| Optimum health: | **** |
| Weight gain: | *dotote |

The good: This food is very low in Saturated Fat, Cholesterol and Sodium. It is also a good source of Calcium, Iron and Copper, and a very good source of Dietary Fiber and Vitamin C.

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Fruit—Lime

Limes, raw

Serving size: 1 fruit (2" dia) (67g) 🗸

NUTRITION INFORMATION

Amounts per 1 fruit (2" dia) (67g)

| Amounts Per Selected S | erving | %DV |
|------------------------|----------------|-----|
| Calories | 20.1 (84.2 kJ) | 1% |
| From Carbohydrate | 17.4 (72.9 kJ) | |
| From Fat | 1.1 (4.6 kJ) | |
| From Protein | 1.6 (6.7 kJ) | |
| From Alcohol | 0.0 (0.0 kJ) | |

| Carbohydrate | s | |
|------------------------------|-------|-----|
| Amounts Per Selected Serving | | %DV |
| Total Carbohydrate | 7.1 g | 2% |
| Dietary Fiber | 1.9 g | 8% |
| Starch | ~ | |
| Sugars | 1.1 g | |
| | | |

More details 🔻

Fats & Fatty Acids

| Amounts Per Selected Serving | | %DV |
|--|---------|------------------|
| Total Fat | 0.1 g | 0% |
| Saturated Fat | 0.0 g | 0% |
| Monounsaturated Fat | 0.0 g | |
| Polyunsaturated Fat | 0.0 g | |
| Total trans fatty acids | ~ | |
| Total trans-monoenoic fatty acids | ~ | |
| Total trans-polyenoic fatty acids | ~ | |
| Total Omega-3 fatty acids | 12.7 mg | |
| Total Omega-6 fatty acids | 24.1 mg | |
| Learn more about these fatty acids and their equivalent names | | |
| | More d | letaile - |

More details

Protein & Amino Acids

| Amounts Per Selected Serving | | %DV |
|------------------------------|-------|-----------|
| Protein | 0.5 g | 1% |
| | More | letails 🔻 |

Vitamins %DV Amounts Per Selected Serving Vitamin A 33.5 IU 1% Vitamin C 19.5 mg 32% Vitamin D ~ \sim Vitamin E (Alpha Tocopherol) 0.1 mg 1% Vitamin K 0.4 mcg 1% Thiamin 0.0 mg 1% Riboflavin 0.0 mg 1% Niacin 0.1 mg 1% Vitamin B6 0.0 mg 1% Folate 1% 5.4 mcg Vitamin B12 0.0 mcg 0% Pantothenic Acid 0.1 mg 1% Choline 3.4 mg Betaine ~

More details 🔻

| Minerals | | |
|------------------------------|---------|-----|
| Amounts Per Selected Serving | | %DV |
| Calcium | 22.1 mg | 2% |
| Iron | 0.4 mg | 2% |
| Magnesium | 4.0 mg | 1% |
| Phosphorus | 12.1 mg | 1% |
| Potassium | 68.3 mg | 2% |
| Sodium | 1.3 mg | 0% |
| Zinc | 0.1 mg | 0% |
| Copper | 0.0 mg | 2% |
| Manganese | 0.0 mg | 0% |
| Selenium | 0.3 mcg | 0% |
| Fluoride | ~ | |

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Recipe—Honey Lime Chicken

Ingredients

- 4 boneless skinless chicken breasts
- 2 tablespoons extra virgin olive oil or grapeseed oil if you prefer
- 3 cloves garlic minced
- 2 tablespoons honey
- 2 tablespoons lime juice
- ½ tablespoon gluten-free or low sodium soy sauce
- 1 teaspoon fresh ground black pepper
- ¹/₂ teaspoon salt
- 1 tablespoon parsley chopped
- 4 lime slices

Directions

Preheat oven to 425°

1.

Add olive oil, garlic, honey, lime juice, soy sauce, salt, pepper and chicken breasts to a large zipper bag or bowl and toss together.

2.

Lightly coat a baking dish or skillet that is oven and stovetop safe with oil and place the chicken breasts into the dish.

З.

Brown the chicken breasts over medium-high heat for 2-3 minutes on each side.

4.

Remove from heat and add a large spoonful of marinade over each chicken breast.

5.

Bake in the oven for 15-18 minutes or until cooked all the way through (meat thermometer should read 165°). If your dish is not oven safe, place chicken into a casserole baking dish before putting in the oven.

6.

Remove from oven, top each chicken breast with lime wedges and parsley.

7.

Cover the dish with foil for 5 minutes before serving.

8.

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Brain Exercise

Don't Just Exercise Your Body, Workout Your Brain!



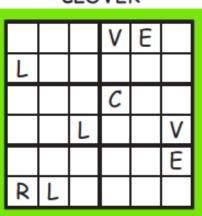
Saint Paddy's Sudoku

DIRECTIONS: Fill in the grids so that each horizontal row contains each letter exactly once, each vertical column contains each letter exactly once, and each subgrid contains each letter exactly once. We recommend you use a pencil.

CLOVER

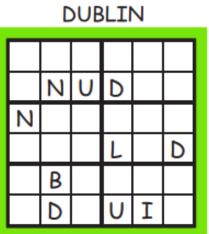
RAINBOWS

| | В | | | | | | R |
|---|---|---|---|---|---|---|---|
| | | В | Ζ | R | | 0 | |
| W | | | | | Ι | | |
| | S | | | | | Ι | |
| Ν | | | 0 | | | | W |
| | | | | | | | |
| | | | | | | S | |
| | R | S | | Ν | | В | |



SHAMROCK







-

March 2023

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|----------------------------|--------------------------------|--------------------------------|--|--------------------------------------|---|------------------------------------|
| | | | 1 Peanut Butter Lover's Month | 2 Old Stuff Day | 3 Caregiver Apprecia- tion Day | 4 Holy Experi- ment Day |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Namesake Day | National Frozen Food Day | National Cereal Day | Interna- tional Women's Day | Popcorn Lover's Day | Interna- tional Day of Aware- ness | Genealogy Day |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Plant a Flower Day | Jewel Day | National Pi Day | Buzzards Day | Everything You Do Is Right Day | Saint Patrick's Day | National Quilting Day |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| Poultry Day | Earth Day | Tea for Two Tuesday | As Young As You Fell Day | National Chip and Dip Day | National Chees- esteak Day | Interna- tional Waf- fle Day |
| 26 | 27 | 28 | 29 | 30 | 31 | |
| National Spinach Day | National "Joe" Day | Something on a Stick Day | National Mom and Pop Busi- ness Own- ers Day | National Doctor's Day | World Backup Day | |

Monthly Observances

- Irish American Heritage Month
- Music in Our Schools Month
- National Celery Month
- National Craft Month
- National Frozen Food Month

- National Nutrition Month
- National Peanut Month
- National Women's History Month
- Red Cross Month
- Social Workers Month

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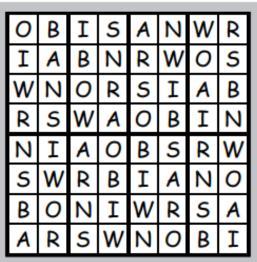
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Brain Exercise Answers

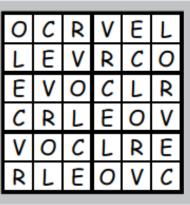
RAINBOWS



DUBLIN

| D | Ι | L | В | U | Ν |
|---|---|---|---|---|---|
| В | Ν | U | D | L | Ι |
| | | | | | U |
| Ι | U | В | L | Ν | D |
| | | | | | L |
| L | D | Ν | U | Ι | В |

CLOVER



SHAMROCK

| С | Μ | 0 | Α | Н | R | Κ | S |
|---|---|---|---|---|---|---|---|
| Η | Κ | R | S | 0 | Μ | Α | С |
| Α | R | S | Н | Κ | 0 | С | Μ |
| 0 | С | Μ | Κ | R | Α | S | Η |
| S | Н | A | С | × | Κ | 0 | R |
| R | 0 | Κ | Μ | С | S | Н | Α |
| Κ | Α | Η | R | S | С | × | 0 |
| | | | | | | Я | |