## 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<br/>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.

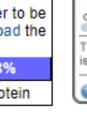
Limes are often used for pickling, flavored drinks, sweets, and other foods. The flavor is different than a lemon. The pulp is a yellowish green color, tender, juicy, and acidic. Limes, as well as most citrus fruits, are known to contain vitamin C. One lime contains about 30% of an individual's daily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

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
- <sup>1</sup>/<sub>2</sub> 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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# **Food and Fitness**



# **Brain Exercise**

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



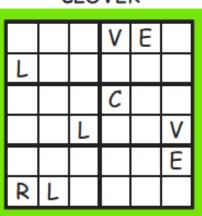
# Saint Paddy's Sudoku

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

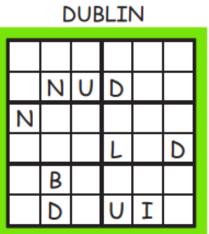
# RAINBOWS

	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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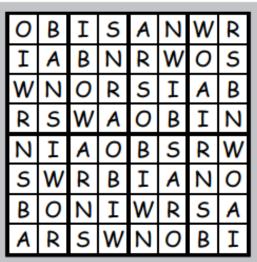
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This newsletter is created by Kathrine J. Clark, MS, RD, LD, Nutrition Consultant to the West Virginia Bureau of Senior Services.

# **Brain Exercise Answers**

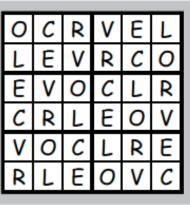
RAINBOWS



## 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	