DIGITAL MAGAZINE



Food & Nutrition



ENRICHMENT

#### **Nutrition Education Index**











#### **Activity Sheets**

#### Sources

Vitamin A

Vitamin B12

Vitamin C

Vitamin D

Vitamin E

Vitamin K

Calcium

**Carbohydrates** 

<u>Fiber</u>

Iron

Omega-3 Fats

**Potassium** 

**Protein** 

<u>Zinc</u>

#### Nutrition

Vitamin A

Vitamin B12

Vitamin C

Vitamin D

Vitamin E

Vitamin K

Calcium

<u>Carbohydrates</u>

**Fiber** 

Iron

Omega-3 Fats

**Potassium** 

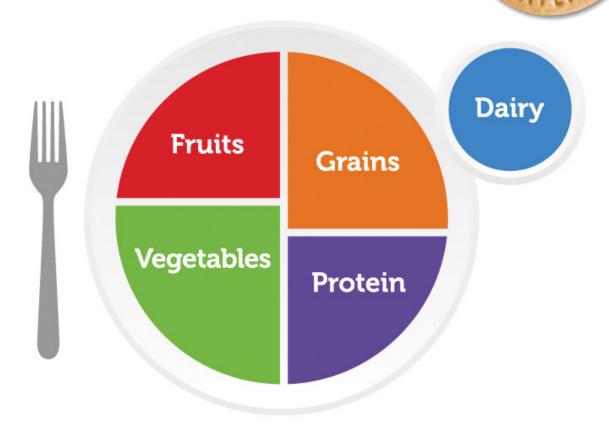
**Protein** 

Zinc

## My Plate

"The benefits of healthy eating add up over time, bite by bite. Small changes matter."





# Start simple with MyPlate

### Vitamin A

Food - Carrots, Sweet Potatoes, Peaches, Broccoli, Bell Peppers, Spinach & Tomatoes.



carrots are a **root** vegetable.

**Root vegetables** are vegetables that grow underground.



Sweet potatoes are a **root** vegetable.

Sweet potatoes can be **orange**, **white** or **purple**.

The orange ones are the sweetest!





Carrots come in a rainbow of colors – purple, red, white, yellow and of course...orange!

Peaches are a **stone** fruit.

Peaches are covered in small hairs referred to as "peach fuzz."



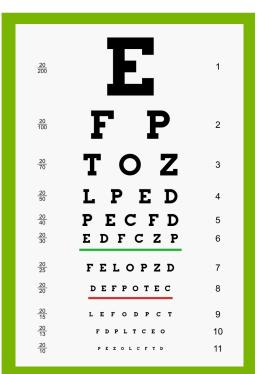
#### Vitamin A

Nutrition - Supports good vision, growth & immunity.



Vitamin A helps improve eyesight to see better at night and experience more vivid colors during the day.

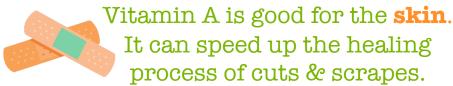




## VISION

How far can you read down this eye chart?

Vitamin A supports the **immune system**.



How do you know carrots are good for the eyes? You never see a rabbit wearing glasses!



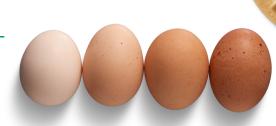
### Vitamin B12

Food - Poultry, Eggs, Milk, Yogurt, Cheese, Bananas & Fish.



Eggs are a part of the **protein food group**.

Commercial eggshells – the ones you get at the grocery store are usually **brown** or **white**.



GGS

But eggshells can come in a variety of colors like **green**, **blue** & **pink**!



Poultry is a variety of **birds** raised for the use of their **eggs & meat**.

The average hen lays **300 - 325** eggs per year.

Meat is a part of the **protein food group**.

Meat is composed of mainly water, protein & fat.



#### Vitamin B12

Nutrition - Supports energy, brain function & mood.

8

#### essential B vitamins:

Vitamin B1, Vitamin B2, Vitamin B3, Vitamin B5, Vitamin B6, Vitamin B7, Vitamin B9 & *Vitamin B12*.



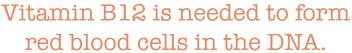


Vitamin B12 is an essential nutrient for **brain power!** 

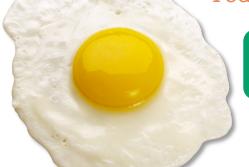
B5, **B12**, C and E knock on your door...what do you do?

In-Vitamin!









Vitamin B12 plays a role in **serotonin** production.

Serotonin makes us feel happy.

HAHA



#### Vitamin C

Food - Oranges, Tomatoes, Broccoli, Bell Peppers, Strawberries & Potatoes.



The little florets of broccoli are buds ready to bloom.

Oranges are a citrus fruit.

SIX hundred





Broccoli is a cruciferous vegetable.



Pronounced  $kroo \cdot si \cdot fr \cdot uhs$ 

Tomatoes can be **red**, yellow, pink, purple, black and even white!



POMATOES

**90%** of the United States' orange juice comes from Florida.



Did you know tomatoes are a kind of berry?

varieties of tomatoes.

### Vitamin C

Nutrition - Supports the immune system, which is the body's defense against infections.

Vitamin C helps in the production of white blood cells, which are the cells that help our body fight infections.





Vitamin C helps to **heal** wounds.

#### ENERGY booster!

Vitamin C is also referred to as "ascorbic acid."



## IMMUNE HEALTH



Vitamin C helps keep you **happy & healthy**!

What do you call a vitamin that improves your eyesight?

A Vitamin C!





Vitamin C is a very important vitamin for healthy gums & teeth.



#### Vitamin D

Food - Oranges, Tomatoes, Black Currants,
Broccoli, Bell Pepper, Strawberries & Potatoes.





Milk provides 9 essential nutrients.



**Vitamin D**, Calcium, Potassium, Vitamin B12, Vitamin A, Protein, Phosphorus, Riboflavin & Niacin.





**MOST** of our vitamin D comes from exposure to the sun on our skin.

In the winter, the sun is less likely to provide the daily needs of Vitamin D.



MILK

Nicknamed "the chicken of the sea."

Bluefin tuna can grow up to 6 feet long!

Tuna is one of the **best** food sources to get Vitamin D.

#### Vitamin D

Nutrition - Supports the development and maintenance of bones, teeth & muscles.

Vitamin D is the

#### ONLY

vitamin the body can make itself.

Only a few foods naturally contain vitamin D.

"The SUNSHINE Vitamin"





Don't forget to wear sunscreen and sunglasses!





Calcium and phosphate are essential for strong bones.



#### Vitamin E

Food - Avocados, Shrimp, Sunflower Seeds, Spinach, Squash, Kiwifruit & Broccoli.

Avocados are a **fruit** – a large berry with a single seed.

Avocados are sometimes referred to as "Alligator Pears".

Over **1,000** varieties of avocado.

Shrimp are **crustaceans**- a form of shellfish.

Crustaceans are covered in hard shells called **exoskeletons**.

Shrimp swim **faster** when they are going backwards than they do when they go forwards.

Sunflower seeds are the **fruit** of the sunflower.

Each sunflower has 1,000 to 2,000 seeds.

#### Vitamin E

Nutrition - Acts as an antioxidant, supports the immune system & proper blood function.

Vitamin E is a group of **EIGHT** essential vitamins.







Vitamin E strengthens the immune system.

Vitamin E is a **fat-soluble** nutrient.



The best way to get the most nutrients from vitamin E foods is to eat them with a healthy fat like olive oil.

## ANTIOXIDANT

Antioxidants help protect against damage caused by exposure to harmful substances in the environment.

These harmful substances are called free radicals.



### Vitamin K

Food - Kale, Spinach, Cabbage, Collard Greens, Brussel Sprouts, Broccoli & Asparagus.



Cabbage is a cruciferous vegetable.



Cabbage can grow up to 6 feet tall.

Cabbage is a "coldweather veggie".



Over **400** varieties of cabbage.

The most popular:

- 1. Green Cabbage
- 2. Red Cabbage
- 3. Savoy Cabbage

Cabbage is one of the **OLDEST** vegetables in existence.



Kale is a bitter leafy vegetable.

Kale is a superfood!

Over **50** varieties of kale.

Kale thrives in colder climates.









### Vitamin K

Nutrition - Supports proper blood function, bone growth & kidney health.

The body has the ability to create Vitamin K on its own.

The 2 main forms of vitamin K are **K1** and **K2**.



Vitamin K is a fatsoluble vitamin.

For better absorption into the body, it is best to eat Vitamin K foods with some fat...like olive oil or avocado!

STRONG BONES

Vitamin K helps produce proteins that bind themselves to calcium...this leads to strong bone health.

Vitamin K keeps **skin** healthy.





Vitamin K helps the body heal from cuts & wounds.

#### Calcium

Food - Cheese, Bok Choy, Soybeans, Spinach, Kale, Collard Greens & Oranges.

Cheese is a **dairy** product made from milk.



The most commonly used milks to make cheese come from cows, goats & sheep.

Over **2,000** varieties of cheeses.

The holes in

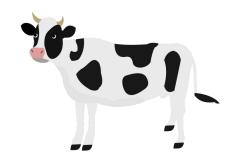
Swiss cheese

are a result

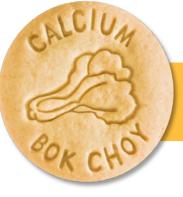
of the

fermentation

process.



**TEN** pounds of milk goes into making 1 pound of cheese.



Bok Choy is sometimes called the "soup spoon" because of the shape

of its leaves.



#### Calcium

Nutrition - Supports healthy bones & teeth as well as proper blood & muscle function.

Calcium helps form bones and teeth and keep them healthy.



Calcium keeps muscles working properly.









Calcium is the 5<sup>th</sup> most abundant chemical element in the Earth's crust.

## HEALTHY TEETH

99%

of the body's calcium is stored in the **bones**.

l

The other 1% is found in the blood, muscles & other tissues.



Calcium
helps to
heal cuts
& wounds.



## Carbohydrates

Food – Corn, Rice, Beans, Potatoes, Strawberries & Bananas.



Corn is considered a vegetable, fruit **AND** a grain!

Corn is America's number 1 field crop.







An ear of corn **ALWAYS** has an even number of rows.



There are over 40,000 different varieties of rice.

All white rice is originally

brown.



CORN

## Carbohydrates

Nutrition - The body's main source of energy.

## ENERGY

Carbohydrates are the QUICKEST form of energy for the body.

Carbohydrates are also referred to as "carbs."

ALL of our carbohydrates come from the foods we eat –

like corn!

The human body cannot produce carbohydrates.



Carbohydrates in the body break down into **glucose**.

Carbohydrates improve **brain health** by supporting good moods,
memory power and concentration.

#### Fiber

Food - Whole Grains, Lentils, Chia Seeds, Raspberries, Apples & Broccoli.

Examples of whole grains: whole wheat bread, brown rice & oatmeal.

#### 7 major types of grains:

- 1. Corn
- Wheat
- Rice
- 4. Barley
- 5. Sorghum
- 6. Oats
- 7. Rye

Grains are very versatile!

The starch from wheat is used as an ingredient in the glue of postage stamps.

Wheat is a very adaptable crop that can grow no matter the climate or soil conditions.

of the world's 17% cultivated land is wheat.

Eating whole grains helps you feel and stay full.

#### Ways to add fiber to meals & snacks:

- Top yogurt, cereal, or oatmeal with fruit & seeds.
- Put veggies, like lettuce, tomato, or avocado, on sandwiches.

#### Fiber

Nutrition - Supports movement through the intestines & helps the body to regulate the use of sugars.

## DIGESTION

GOOD FOR DIGESTION

Fiber is a type of carbohydrate that the body doesn't digest, it simply passes through.

**Soluble fiber** dissolves in water...it helps regulate blood sugar levels and removes cholesterol form the blood stream.



- 1. Soluble fiber
- 2. Insoluble fiber







Insoluble fiber does not dissolve in water...it helps food move throughout the digestive system.







Both forms of fiber are important & beneficial to overall health.

Fiber is **ONLY** found in **plant** foods.

### Iron

Food - Spinach, Sweet Potatoes, Beans, Broccoli, Meat, Poultry & Eggs.

Add some spinach to your next smoothie!



Spinach is a **leafy green** vegetable.

Spinach can grow in temperatures as low as



One of the **ONLY** vegetables that can survive in a climate this cold.

3 types of spinach: savoy, semi-savoy & flat-leaf.

**Flat-leaf** spinach is the most popular in the U.S.

CALIFORNIA #1 spinach p

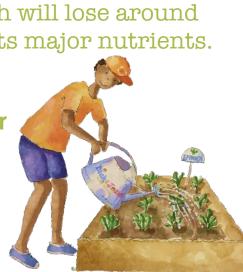
Only 8 days after harvesting, spinach will lose around 50% of its major nutrients.

**CALIFORNIA** is the **#1 spinach producer** in the U.S.









IRON

### Iron

Nutrition - Carries oxygen in the blood, supports the immune system & proper brain function.

- 2 forms of iron:
- 1. Heme
- 2. Non-heme

**Heme** comes from animal meat and is easily absorbed into the body after eaten.

**Non-heme** comes from plant foods.



Non-heme sources of iron are **best** absorbed into the body when eaten with a source of vitamin C, like an orange.

Iron helps muscles function by carrying oxygen to their cells.

Supports a healthy immune system.

Human blood is **RED** because of iron and oxygen reacting with each other.



Iron helps carry oxygen in the blood. Similar to how backpacks carry books!



### Omega-3 Fats

Food - Salmon, Flax Seeds, Sardines, Chia Seeds, Brussel Sprouts, Eggs & Soybeans.









"Fatty fish" simply means that the fish store oil in their muscles.

**Pink salmon** are the smallest & most abundant.



Flax is a **flowering** plant where we get the seeds from.

Sardines can be found all over the **world**.



Flax seeds can be **brown** or **yellow**.



Sardines are also a type of "fatty fish".

## Omega-3 Fats

Nutrition - "Healthy Fats" that help build and maintain a healthy body.

Omega 3-Fats play a KEY role in supporting heart health.







The 5 types of omega-3 fats:

- 1. ALA the most commonly found in seeds and nuts.
- 2. EPA the most commonly found in animal products.
- 3. DHA the most IMPORTANT omega-3 fat.

Omega 3-Fats are essential for learning & memory.



Eat some fish before your next test!

Improves (a) (b) health.



**DHA** is found in fatty fish.

> Omega 3-Fats help to regulate the skins oil production...which keeps your skin stay **hydrated**.

**MARCH 3** 



**GLOBAL OMEGA-3 DAY** 



#### Potassium

Food – Bananas, Sweet Potatoes, Avocados, Spinach, Broccoli & Beans.

Bananas are a type of **berry**.

A cluster of bananas is called a "hand" and the individual bananas are referred to as the "fingers".





Nearly all bananas found in the U.S. are **Cavendish** bananas.



Sweet potatoes grow **best** in warm climates with an average temperature of **75** °F.

Sweet potatoes are **MOST** nutritious when cooked and eaten with the skin on.



#### Potassium

Nutrition – Supports balancing fluid in the body & proper function of the muscles and nerves.



Potassium is the

#### THIRD

most abundant mineral in the body. Once potassium enters the body, it functions as an **electrolyte**.



Potassium helps to regulate the heart rate. Electrolytes help **balance** the amount of water in the body.

Helps to keep the body **hydrated!** 



#### **FUN FACT:**

The body is made up of approximately **60%** water.

**40%** of this water is found inside the body's cells.

Potassium helps to **regulate** muscle contractions.

Many runners eat **bananas** before a run to **prevent muscle cramps**.



#### Protein

Food - Yogurt, Milk, Cheese, Meat, Poultry, Fish & Eggs.

Yogurt is a **dairy** product made from fermented milk.

The bacteria used to make yogurt are known as **yogurt cultures**.

Add some yogurt to your next smoothie for some extra protein!

Yogurt is a superfood!

Seafood includes **fish** and **shellfish**.

The most popular types of seafood in the United States are **shrimp**, **salmon** & **tuna**.

Meat can come from any type of **animal**.



OGUR





SEAFOO

#### Protein

Nutrition - Builds, maintains, and replaces the tissues in your body.

Protein is made up of **22** amino acids, **9** of which are **essential**.

Amino acids are known as protein's "building blocks".



18-20% of the body is protein.

Protein is a

MACRONURIENT

 a nutrient that the body needs in large amounts.

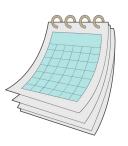


## BUILDS MUSCLE



The body **cannot** store protein **long term**...which is why protein needs to be consumed **daily**.

**EVERY** cell in the human body contains protein.



#### Zinc

Food - Crab, Meat & Poultry.

Crabs can walk in **ALL** directions. but they mostly walk sideways.

Crabs are a type of **shellfish**.



Crabs are **DECAPODS**meaning they have 10 legs.



A group of crabs are called a cast.

Crabs are mostly found in salt water.

The Japanese spider crab is the world's

LARGEST crab.

12 - 13 ft.



**Red meat** is a great source of zinc.

The **muscle tissue** contains the most amount of zinc.



Some red meats include

beef, lamb & pork.

#### Zinc

Nutrition - Supports the immune system, healing of wounds & metabolism function.

Zinc is in **EVERY** cell in the human body.

After iron, zinc is the **second** most common mineral found in the body.



Helps **shorten** the length of being sick with a cold.

21NC



Zinc supports healthy **eyes**.

Zinc is a **trace mineral** – meaning the body only needs it in **small amounts**.

## IMMUNE HEALTH



Zinc plays a role through the **whole process** of healing a wound.



Zinc promotes **healthy skin**.

Zinc is an **essential** nutrient.



The body *cannot* produce or store essential nutrients.

#### **Learn More Library**

