

# Nutrient Deficiency

INTRO

Micronutrients

VITAMINS

PHYTONUTRIENTS

MINERALS

TEAMWORK

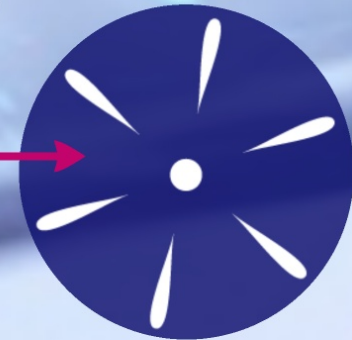
Fitness



## What's the problem?

The Doctor told Jasmine's mom that she needs more calcium in her diet. After all, our bones are largely made up of calcium.

First, let's look at where calcium comes from and how much is needed.





## Dairy

### Foods fortified with calcium

- Cereal
- Non-dairy milks
- Some orange juice



## Where to find Calcium?

People aged 9-18 need **1300 mg of calcium** each day\*. That's **4 servings of high-calcium foods** such as dairy.

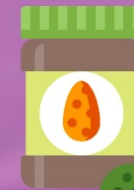
The easiest way to get all that calcium is through milk or yogurt, which has a whopping 300 mg of calcium per serving. But there are plenty of other options too!

Note: *Fortified* foods have minerals added into them

\*According to the National Institute of Health guidelines at NIH.gov

## Beans

- Garbanzo beans or chickpeas
- Red beans
- White beans



## Almonds



## Broccoli and Greens



## Sardines

# CALCIUM IS A MICRONUTRIENT

Unlike other nutrients such as carbs, fat and protein, *micronutrients* are only needed in small amounts and do not provide energy; they are however, essential to *every* body process.

VITAMINS

MINERALS

PHYTONUTRIENTS

# Vitamins

All micronutrients, including vitamins, work with other nutrients to trigger body processes such as protecting you against disease, healing wounds, and converting food into energy.

VITAMINS  
MINERALS  
PHYTONUTRIENTS

VITAMIN  
A

VITAMIN  
D

VITAMIN  
E

VITAMIN  
K

VITAMIN  
C

B  
Complex  
Vitamins B1, B2, B3,  
B5, B6, B7, B9, B12

# MINERALS

Minerals come from the earth, either in the form of plants (who absorb minerals from the ground) or animals (who eat food containing minerals). They not only help with body processes, but they also *give your body structure*. For example, calcium makes your bones and teeth strong.



A few examples of minerals are calcium, iron, potassium, magnesium, and sodium (salt).

VITAMINS

**MINERALS**

PHYTONUTRIENTS

"Phyto"  
means plant



# PHYTONUTRIENTS

Phytonutrients come from plant sources.

Foods with lots of phytonutrients are often very colorful and provide your body with health benefits such as preventing disease, strengthening your immune system, and other ways that support your body to maintain optimal health.



VITAMINS

MINERALS

PHYTONUTRIENTS

# PHYTONUTRIENTS ARE FOUND IN

# COLORFUL FOODS

fruits, vegetables, beans, whole  
grains, nuts, herbs, spices and tea

Metabolic  
Magic



# TEAMWORK

*Teamwork is important  
when it comes to  
micronutrients!*



FIND  
OUT  
MORE



# TEAM MICRONUTRIENTS

## **Vitamins, Minerals, Phytonutrients**

Specific micronutrients are important for specific body processes.

For example:

Calcium is important for strong bones and

Vitamin C is important for immune system support.

But these nutrients don't work alone...

Teamwork  
is  
essential when it  
comes to vitamins,  
minerals, and  
phytonutrients!

## Magnesium

- *Almonds*
- *Beans*
- *Avocados*
- *Whole grains*



## Who is on calcium's team?

In order for your body to *absorb* the calcium, you need a few other vitamins and minerals:

***Vitamins D, K and magnesium.***



## Vitamin D

- *Fortified foods (milks, some cereal)*
- *Cheese*
- *Fatty fish*



## Vitamin K

- *Greens and lettuce*
- *Broccoli, cauliflower*
- *Cabbage*
- *Fortified foods (milks, some cereal)*



## What else for optimal health?

Now that you know what foods Jasmine's mom (and Jasmine) can eat to make sure their bodies get enough calcium AND absorb it, what would you recommend Jasmine and her mother change about their diet?

What else can Jasmine's mom do to make her body stronger?

Go on to the next topic to find out more!

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