

## Calcium, iron, and protein in a plant-based diet

It is known that a plant-based diet is rich in fiber, magnesium, and many vitamins like A, C, and E. But there is a common question asked by many and it is “does a plant-based diet contains enough Calcium, iron and protein?”. I'll try to quickly answer it.

I will give you information about these vitamins and minerals, why you need it, how much you need it and how you can get it in a plant-based diet.

This information is educational, and it is recommended to consult a doctor in case of deficiency.

Sources: National Institutes of Health

### CALCIUM

#### **Why do we need it?**

Calcium is a mineral that is necessary for life. In addition to building bones and keeping them healthy, calcium enables our blood to clot, our muscles to contract, and our heart to beat. About 99% of the calcium in our bodies is in our bones and teeth.

#### **How much of it do we need?**

<ul style="list-style-type: none"><li>● Babies younger than 6 months old: 200 mg per day.</li><li>● Babies 7 to 11 months old: 260 mg per day.</li><li>● Kids 1 to 3 years old: 700 mg per day.</li><li>● Kids 4 to 8 years old: 1,000 mg per day.</li><li>● Kids and teens 9 to 18 years old: 1,300 mg per day.</li></ul>	<ul style="list-style-type: none"><li>● Men and women 19 to 50 years old: 1,000 mg per day.</li><li>● Women over 50: 1,200 mg per day.</li><li>● Men over 50: 1,000 mg per day.</li><li>● Men over 70: 1,200 mg per day.</li></ul>
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#### **Where can we find calcium in a plant-based diet?**

<ul style="list-style-type: none"><li>● Fortified almond, soy, or rice milk: 300-500mg/ 8 ounces</li><li>● Collard greens, cooked: 270 mg / 1 cup</li><li>● Turnip greens, steamed or boiled: 200 mg / 1 cup</li><li>● Mustard greens, steamed or boiled: 160 mg / 1 cup</li><li>● Bok choy, steamed or boiled: 150 mg / 1 cup</li><li>● Tempeh: 120 mg / 4 ounces</li><li>● Tahini: 120 mg / 2 tablespoons</li><li>● Dried figs: 120 mg / 1/2 cup</li><li>● Extra firm tofu: 100 mg – 150 mg / 3 ounces</li></ul>	<ul style="list-style-type: none"><li>● Oats, instant: 100 mg / 1 serving</li><li>● Kale, steamed or boiled: 100 mg / 1 cup</li><li>● Shelled edamame, steamed: 100 mg / 1 cup</li><li>● Silken tofu: 80 mg / 3 ounces</li><li>● Blackstrap molasses: 80 mg / 1 tablespoon</li><li>● Almond butter: 80 mg / 2 tablespoons</li><li>● Almonds: 80 mg / 1 ounce</li><li>● Orange: 70 mg / 1 cup sections</li><li>● White pea beans, cooked: 65 mg / ½ cup</li><li>● Broccoli, steamed or boiled: 60 mg / 1 cup</li><li>● Pinto beans, cooked: 50 mg / ½ cup</li><li>● ...</li></ul>
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Advice: Be sure to get enough vitamin D because it helps your body absorb calcium. So if you can, enjoy the sunshine with moderation.

## IRON

### Why do we need it?

Iron is a mineral. The major reason we need it is that it helps to transport oxygen throughout the body. If we are not getting sufficient oxygen in the body, we are going to become fatigued. That exhaustion can affect everything from our brain function to our immune system's ability to fight off infections. Iron is also necessary to maintain healthy cells, skin, hair, and nails.

### How much of it do we need?

<ul style="list-style-type: none"><li>● Babies younger than 6 months old: 0.27 mg per day.</li><li>● Babies 7 to 12 months old: 11 mg per day.</li><li>● Kids 1 to 3 years old: 7 mg per day.</li><li>● Kids 4 to 8 years old: 10 mg per day.</li><li>● Kids and teens 9 to 13 years old: 8 mg per day.</li></ul>	<ul style="list-style-type: none"><li>● Male teens 14 to 18 years old: 11 mg per day.</li><li>● Female teens 14 to 18 years old: 15 mg per day.</li><li>● Pregnant women 19 to 50 years old: 27 mg per day.</li><li>● Breastfeeding women 19 to 50 years old: 9 mg per day.</li><li>● Women and men over 51 years old: 8 mg per day.</li></ul>
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### Where can you find iron in a plant-based diet?

<ul style="list-style-type: none"><li>● Soybeans: 8.8 mg / 1 cup</li><li>● Tofu and tempeh: 3–3.6 mg / 6 ounces</li><li>● Lentils: 6.6 mg / 1 cup</li><li>● White, lima, red kidney and navy beans: 4.4–6.6 mg / 1 cup</li><li>● Chickpeas and black-eyed peas: 4.6–5.2 mg / 1 cup</li><li>● Pumpkin, sesame, hemp, and flaxseeds: 1.2–4.2 mg / 2 tablespoons</li><li>● Tahini (a paste made from sesame seeds): 2.6 mg / ½ cup</li><li>● Hummus: 3 mg / ½ cup</li><li>● Almonds, cashews, pine nuts, and macadamia nuts: 1–1.6 mg / ounce</li><li>● Leafy greens, such as spinach, kale, swiss chard, collard, and beet greens: 2.5–6.4 mg / 1 cup</li></ul>	<ul style="list-style-type: none"><li>● Broccoli, cabbage and Brussels sprouts: 1 - 1.8 mg / 1 cup</li><li>● Tomato paste: 3.9 mg / ½ cup</li><li>● Sun-dried tomatoes: 1.3–2.5 mg / ½ cup</li><li>● Potatoes: 3.2 mg / one large, unpeeled</li><li>● Sweet potatoes: 2.1 mg / one large, unpeeled</li><li>● Palm hearts: 4.6 mg / 1 cup</li><li>● Olives: 3.3 mg / 3.5 ounces</li><li>● Mulberries: 2.6 mg / 1 cup</li><li>● Amaranth: 5.2 mg / 1 cup</li><li>● Spelt: 3.2 mg / 1 cup</li><li>● Oats: 3.4 mg / 1 cup</li><li>● Quinoa: 2.8 mg / 1cup</li><li>● Coconut milk: 3.8 mg / ½ cup</li><li>● Blackstrap molasses: 1.8 mg / 2 tablespoons</li><li>● Thyme: 1.2 mg / dried teaspoon</li><li>● ...</li></ul>
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**Good to know:** 100 grams of spinach contains 1.1 times more iron than the same amount of red meat and 2.2 times more than 100 grams of salmon.

This is also 3 times more than 100 grams of boiled eggs and 3.6 times more than the same amount of chicken.

**Advice:** To better absorb iron eat vitamin C-rich foods which may increase the absorption of iron by up to 300%. Avoid coffee and tea which can reduce iron absorption by 50-90%. Consume lysine-rich foods like legumes and quinoa which may increase iron absorption as well.

## PROTEIN

### Why do we need it?

Protein is an important component of every cell in the body. Hair and nails are mostly made of protein. Our body uses protein to build and repair tissues. We also use protein to make enzymes, hormones, and other body chemicals. Protein is an important building block of bones, muscles, cartilage, skin, and blood.

### How much of it do we need?

The protein RDA (Recommended Dietary Allowance) is 0.8 grams/kilogram (about 2.2 pounds) of body weight. So an average male would need 56 g per day, and an average female would need 46g per day. But it also depends on physical conditions and if a person practices an exercise or not. It is always better to speak to a doctor or a nutritionist for better advice.

### Where can we find calcium in a plant-based diet?

<ul style="list-style-type: none"><li>● Lentils: 9 grams/ ½ cup</li><li>● Tofu: 10 grams/ 1 cup</li><li>● Black beans: 8 grams / 1/2 cup</li><li>● Quinoa: 8 grams / 1 cup</li><li>● Amaranth: 7 grams / 1 cup</li><li>● Soymilk: 8 grams / 1 cup</li><li>● Green peas: 8 grams / 1 cup</li><li>● Artichokes: 4 grams / 1/2 cup</li><li>● Hempseeds: 13 grams/ 3 tablespoons</li><li>● Oatmeal: 6 grams / 1 cup</li><li>● Pumpkin seeds: 8 grams / 1/4 cup</li><li>● Chia seeds: 5 grams / 2 tablespoons</li><li>● Tempeh: 12 grams / 1 cup</li><li>● Hemp milk: 5 grams / 1 cup</li></ul>	<ul style="list-style-type: none"><li>● Edamame 8.5 grams / 1/2 cup</li><li>● Spanish: 5 grams / 1 cup</li><li>● Black-eyed peas: 8 grams / 1/2 cup</li><li>● Broccoli: 4 grams / 1 cup</li><li>● Asparagus: 4 grams / 1 cup</li><li>● Green beans: 4 grams / 1/2 cup</li><li>● Almonds: 7 grams / 1 cup</li><li>● Almond butter: 7 grams / 2 tablespoons</li><li>● Tahini: 8 grams / 2 tablespoons</li><li>● Nutritional yeast: 8 grams of protein / 2 tablespoons</li><li>● Hummus: 6-8 grams / ½ cup</li><li>● Peanut butter: 8 grams / 2 tablespoons</li><li>● ...</li></ul>
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**Advice:** We should try to eat enough protein daily, but we should also pay attention to the protein RDA (Recommended Dietary Allowance). A diet “too” rich in protein, may cause our body to excrete more calcium. Too much protein has been linked to many health problems such as kidney stones, osteoporosis...

### 3 BIBLE VERSES TO MEDITATE ON

Before sin “And God said, Behold, I have given you every **herb bearing seed**, which is upon the face of all the earth, and **every tree, in the which is the fruit of a tree yielding seed**; to you it shall be for meat.”  
- Genesis 1:29

And just after Adam and Eve disobeyed God, He said: “Thorns also and thistles shall it bring forth to thee; and thou shalt eat the herb of the field” - Genesis 3:18

“He causeth the grass to grow for the cattle, and **herb for the service of man**: that he may bring forth food out of the earth;” - Psalms 104:14

The original diet was a plant-based diet constituted of fruits, nuts, and seeds, and later on, herbs (includes vegetables) were adding to our diet. God knew that sin will cause sickness and added herbs to our diet for our service.