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NUTRITION

Improving Nutrient BIOAVAILABILITY

THE BEST FOOD PAIRINGS AND COOKING METHODS TO BOOST NUTRIENT ABSORPTION.

BIOAVAILABILITY 101

What is it?

We've all heard the saying, "You are what you eat." Well, that's not entirely true. A more accurate statement would be, "You are what you absorb."

Yep, just because a nutritional label lists a vitamin and mineral content, *doesn't* mean you're actually absorbing it.

Some nutrients absorb well on their own. Others don't, and need help from other nutrients to boost absorption.

What is Bioavailability?

Simply put, bioavailability is **how much a nutrient is actually absorbed**.

The higher the bioavailability, the more that nutrient is available to your body for storage and use.

How Do You Improve Bioavailability?

It's pretty simple. Learn which nutrients to pair together.

When certain **nutrient combos are eaten together, it triggers chemical reactions that promote optimal absorption**. That way, you get the most nutritional bang for each bite!

But boosting bioavailability isn't just about *what* you eat. It's about *how* you prepare it. Certain cooking methods preserve nutrients, while others do just the opposite.

In this guide, we'll cover which food pairings improve nutrient bioavailability and the best cooking methods to prevent nutrient loss.

THE BEST FOOD PAIRINGS

To improve bioavailability

Vitamin C + Plant-based iron

Foods like lentils, tofu, and spinach are good sources of plant-based iron (known as non-heme iron). But plant-based iron doesn't have the best bioavailability.

The solution? Eat plant-based iron with vitamin C. Vitamin C boosts the absorption of non-heme iron when eaten together.

Examples:

- Add a squeeze of lemon juice (vitamin C) to lentil soup (iron)
- Red bell peppers (vitamin C) with black beans (iron)
- Strawberry slices (vitamin C) atop spinach salad (iron)

Calcium + Vitamin D

Vitamin D helps your body absorb calcium better. In fact, without enough vitamin D, only around 10 to 15% of calcium is absorbed.

That said, these nutrients don't have to be eaten at the exact same time. Vitamin D is fat-soluble, meaning your body can store it. So as long as you eat some foods with calcium and vitamin D in the same day, you're good.

Examples:

- Sautéed kale (calcium) and mushrooms (vitamin D)
- Broccoli (calcium) with salmon (vitamin D)

THE BEST FOOD PAIRINGS

To improve bioavailability (continued)

Vitamin D + Magnesium

Vitamin D improves magnesium absorption AND your body needs magnesium to synthesize vitamin D. So this nutrient duo is a win-win!

Examples:

- Green salad topped with sardines (vitamin D) and pumpkin seeds (magnesium)
- Eggs (vitamin D) with sautéed spinach (magnesium)

Zinc + Animal Protein

Zinc is a mineral that's abundant in animal foods like meat, fish, and poultry. But it's also found in plant foods like legumes, seeds, rice, and quinoa. The trouble is, plant-based zinc isn't absorbed as well.

Research shows pairing plant based foods with animal protein can improve zinc absorption.

Examples:

- Chili with ground beef (animal protein) and kidney beans (plant-based zinc)
- Chicken (animal protein) and veggie stir-fry over brown rice (plant-based zinc)

THE BEST FOOD PAIRINGS

To improve bioavailability (continued)

Fat-soluble vitamins + Healthy fats

Vitamins A, D, E, and K are all fat-soluble vitamins. And to be absorbed well, fat-soluble vitamins need fat. That's why it's best to pair foods rich in fat-soluble vitamins with healthy fats.

Fat-soluble vitamins are found in fruits and veggies. Good sources of healthy fats include fatty fish, nuts, seeds, olive oil, avocados, and coconut.

Keep in mind, some foods (like almonds and salmon) are good sources of fat-soluble vitamins AND healthy fats on their own.

Examples:

- Kale (high in vitamin K) sautéed with olive oil (fat)
- Baked sweet potato (high in vitamin A) topped with avocado slices (fat)

Calcium + Inulin

Inulin is a prebiotic fiber found in foods like onion, garlic, leeks, and asparagus. And pairing inulin-rich foods with calcium improves calcium absorption.

Examples:

- Beans (calcium) with onions and garlic (inulin)
- Tofu (calcium) with asparagus (inulin)

THE BEST FOOD PAIRINGS

To improve bioavailability (continued)

Tomatoes + Olive oil

Tomatoes are rich in lycopene, a potent antioxidant. But lycopene absorbs best when heated and combined with healthy fats.

The answer? Cook tomatoes with a bit of olive oil. The flavors pair beautifully AND you'll absorb lycopene better.

Turmeric + Black pepper

Turmeric contains curcumin, a compound with powerful anti-inflammatory properties. The catch? Curcumin is notorious for its poor absorption.

However, you can easily remedy that by adding a pinch of pepper. Pepper contains piperine, which is shown to boost curcumin absorption by as much as 2,000%!

Green tea + Lemon juice

Green tea is one of the best sources of antioxidants on the planet. And research shows lemon juice helps you absorb all that antioxidant goodness better.

So the next time you brew a cup of green tea, add a squeeze of lemon.

THE BEST COOKING METHODS

To improve bioavailability

How you cook your food also affects nutrient absorption. Cooking enhances the absorption of nutrients like lycopene and beta-carotene. But it can also deplete other nutrients. And some cooking methods cause more nutrient loss than others.

Cooking Methods + Nutrient Bioavailability

Boiling - While this method is quick, it's the worst for nutrient loss. When you boil veggies, water-soluble vitamins leach into the water. For example, if you boil spinach or broccoli, you can lose up to 50% of vitamin C. When boiling veggies, try saving the liquid for soups so those nutrients don't go to waste.

Blanching - This involves briefly submerging food in boiling water and then plunging it into ice water to stop the cooking process. Since the cooking time is shorter with blanching, there's less nutrient loss than boiling.

Baking or roasting - These methods cook food with dry heat. While any heat will involve some nutrient loss, these methods reduce the loss of water-based nutrients like vitamin C and B vitamins.

Microwaving - This cooking method is mighty convenient when you're in a pinch. Since cook times are shorter, there's less heat exposure, which means less nutrient loss than say boiling.

Sauteeing or stir-frying - These stovetop cooking methods both use medium to high heat. The difference? Stir-fryed food is cooked at a higher heat, for less time, and is constantly stirred. Since no water is involved with sauteeing or stir-frying and cook times are shorter, more water-based nutrients are preserved.

Steaming - Lightly steaming is one of the best ways to preserve nutrients. Since steamed veggies don't make direct contact with the cooking water, there's less nutrient loss.