



# Protein Facts

How much protein do humans need?  
Much less than you might think!



## Human Breast Milk

Item	Overall %	% of Solids
Protein	0.9%	7%
Fat	4.5%	35%
Carbs	7.1%	56%
Minerals	0.2%	2%
Solids	12.7%	100.0%
Water	87.3%	
Total	100.0%	

- Babies need just 7% protein during their most rapid growth phase!
- Human adults need no more than 10% protein in their diets.
- The World Health Organization places protein needs at just 5%.

[http://en.wikipedia.org/wiki/Human\\_breast\\_milk](http://en.wikipedia.org/wiki/Human_breast_milk)

## Protein Propaganda

The meat, egg, and dairy industries (and their government counterparts) have been so successful with their protein campaigns that the #1 question vegans get is, "How do you get enough protein?"

The truth is, humans need much less protein than we've been told.

And we can get everything we need from plants.

After all, how does protein get into animal products? What do cows, pigs, and chickens eat?

Answer: Plants!

## Cow's Milk

Item	Overall %	% of Solids
Protein	3.2%	26%
Fat	3.9%	32%
Carbs	4.8%	39%
Other	0.3%	2%
Solids	12.2%	100.0%
Water	87.8%	
Total	100.0%	

- With 26% protein, calves can grow to 1000 lb in a year!
- No species other than humans drinks milk past childhood.
- Only humans drink milks of other species. Dog milk anyone?

[http://en.wikipedia.org/wiki/Cow%27s\\_milk](http://en.wikipedia.org/wiki/Cow%27s_milk)

## Why So Little Protein?

When our cells die, their amino-acid components are *recycled* into new proteins, so we don't need to eat much new protein. Of the 20 amino acids, our bodies can make 12. We must get the remaining 8 "essential" amino acids from the food we eat.

Every living thing contains all 20 amino acids in higher or lower quantities. But there is no need to worry about eating "complete" proteins or combining different foods. Your body preferentially retains the amino acids that are scarcest in the foods you eat.

If you eat enough vegetables, grains, fruits, nuts, seeds, and legumes to satisfy your caloric needs, you'll get ample protein and loads of healthy fiber and disease-fighting phytochemicals and antioxidants.

## Protein in Plants

### Percentage of Calories From Protein (Value Per 100 Grams Edible Portion)

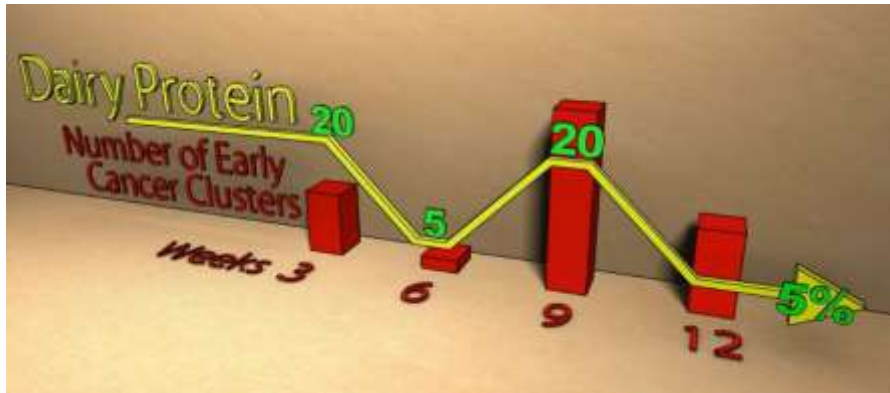
Kidney Beans	58%
Mushrooms	56%
Spinach	50%
Lettuce	36%
Soybeans	35%
Broccoli	33%
Kale	26%
Tomato	19%
Peanuts	18%
Oatmeal	17%
Wild Rice	16%
Wheat	15%
Almonds	15%
Cantaloupe	10%

From the U.S. Department of Agriculture's National Nutrient Database for Standard Reference, 2009.(9)

<http://www.peta.org/issues/animals-used-for-food/veganism-and-the-issue-of-protein.aspx>

# Dangers of Animal Protein

In addition to the saturated fat and cholesterol (coupled with zero fiber!) in meat, egg, and dairy that contribute to heart disease & stroke, *animal protein* itself is bad for you!



## Casein

About 80% of cow's milk protein is casein [KAA-seen], which is especially concentrated in cheese. When mice were fed 20% dairy protein, their cancer clusters skyrocketed.

Source: "Forks Over Knives" (Minute 26 of video)

[www.forksoverknives.com](http://www.forksoverknives.com)

## Heterocyclic Amines

Cooking proteins in meat and fish produces heterocyclic amines, which are linked to various cancers, particularly colon and breast cancers.

## IGF-1

Animal protein triggers the release of Insulin-Like Growth Factor, a cancer-promoting growth hormone.

## Osteoporosis

Countries with the highest rates of osteoporosis, such as the United States, England, and Sweden, consume the most milk. China and Japan, where people eat much less protein and dairy food, have low rates of osteoporosis.

## Early Puberty

Animal protein contributes to early puberty, which has been associated with increased risk of hormone-related cancers, metabolic syndrome, cardiovascular disease, and shorter lifespan. In contrast, plant proteins delay puberty and reduce the risk of breast cancer and mortality.

## Loss of Muscle Mass

Animal protein creates an acidic environment in the blood that may contribute to loss of muscle mass characteristic of aging. In contrast, plant protein creates an alkaline environment that preserves muscle mass.

## Kidney Disease

Most people eat 2 to 3 times more protein than needed, which leads to excess nitrogen that must be expelled by the kidneys. Patients with kidney disease must eat low-protein diets.



## Heart Disease

Animal protein may be associated with a higher risk of even healthy people (normal blood pressure and cholesterol) developing heart disease, independent of saturated fat.

## Kidney Stones

Animal protein creates an acid environment that leads to increased calcium in the blood and increased uric acid which can precipitate stone formation.

## Athletes & Protein?

Contrary to long-held beliefs, even endurance and strength athletes need only slightly more protein, which is easily obtained in the larger servings that they require for their higher caloric intake. In contrast to animal foods, plant-based diets reduce inflammation and promote quicker recovery times. Plant-based athletes continue to set new endurance and performance records.

Sources: [www.pcrm.org](http://www.pcrm.org), [www.nutritionfacts.org](http://www.nutritionfacts.org), [www.livestrong.org](http://www.livestrong.org)