

All traditional cultures consumed some sort of animal food such as fish and shellfish; land and water fowl; land and sea mammals; eggs; milk and milk products; reptiles; and insects. The whole animal is consumed—muscle meat, organs, bones and fat, with the organ meats and fats preferred.

All traditional diets contained animal products. This was Dr. Price's greatest disappointment. He had hoped to find an isolated culture living entirely on plant foods, but had to admit that all traditional people ate animal foods, and in fact went to considerable trouble and risk to obtain animal foods. Some groups, such as the Inuit of the Far North, ate a diet composed almost entirely of meat and fish, while other groups, including agriculturists in Africa and the slave classes in the South Pacific, consumed only small amounts of animal foods.

Whatever their basic diet, all these cultures particularly valued nutrient-dense animal foods for pregnant women and growing children, in order to give their offspring a healthy start in life.

Some will object that the Jainists in India do not eat animal foods, having adopted a policy of "do not harm" to the extent that they wear masks over their mouths so as not to inadvertently kill any flying insects. However, the Jainists consume milk products—traditionally whole raw milk products, which supply vitamins B_{12} , A, D and K, along with calcium and other nutrients less available from plant foods. In addition, they ingest large amounts of microscopic insect parts and insect feces in rice, pulses and other foods (which have not been fumigated as they are in the West); these impurities provide a rich source of vitamin B_{12} . Even so, the Sheikhs of northern India, living on meat products as well as milk and grains, tend to be taller and more robust compared to their vegetarian neighbors in the south of India.

Most cultures from around the world consume a diversity of animal foods—meat, poultry, eggs, fish, shellfish and insects, and have a particular advantage when milk products are included in the diet. (Evidence of dairy farming dates back at least nine thousand years.) At the same time, most cultures also consume high-carbohydrate foods in the form of grains or tubers—in fact, in several cultures the high-carbohydrate food is considered the "food" or the "meal," while animal foods form the basis of the accompanying relish or sauce.

This is good news for modern peoples—we do not need to adopt an extreme diet to recreate the dietary habits of healthy traditional groups. A healthy diet contains both animal foods and high-carb plant foods and avoids the fringes of too much animal food or too much plant food.

As an example of a balanced diet, Otzi, the iceman, whose fivethousand-year-old skeleton emerged from a melting glacier in the Alps in 1991, had a good meal shortly before he died. It consisted of ibex meat; einkorn wheat, possibly in the form of bread; some sort of fat, which might have been from bacon or cheese; and bracken, a common fern. Otzi ate both plant foods and animal foods.

One important point: our ancestors always consumed animal food with the fat—milk with its cream, eggs with the yolks, meat and birds with their fat and fatty organs, and fish and shellfish during the season when they were fattest. Fats and organ meats provide vitamin A and many co-factors needed for protein assimilation; too much lean meat leads to "protein poisoning," or as the Native Americans called it, "rabbit starvation." A paper published in 1988 in the *Journal of Archaeological Science* warns against "the debilitating and potentially serious consequences of excess protein consumption when reconstructing paleo diets and subsistence strategies." The authors note that coastal hunter-gatherers needed added fat or carbohydrates in their diet to avoid an excessive protein intake.

Modern practices of consuming lean meat, skimmed milk, egg whites without the yolks, skinless chicken breasts or protein powders can lead to immune system dysfunction, fatigue, chronic pain, frequent infections, reduced visual acuity and many other symptoms of vitamin A deficiency—even cancer and heart disease.

Again, this is good news! Lean meat, skinless chicken breasts, egg whites without yolks and skimmed milk tend to be tasteless and unsatisfying. Lowfat and fat-free foods, as well as protein powders, are processed with numerous chemicals and additives to make them palatable. Fortunately, we don't have to eat any of these to be healthy. Quite the contrary, full-fat foods are not only satisfying but also support good health in many ways; they should be the basis of any diet.

Animal foods provide many nutrients that plant foods do not contain:

- Vitamin B₁₂: Critical for neurological function and healthy blood, B₁₂ deficiencies can lead to behavioral problems such as depression, obsessive-compulsive behavior and feelings of irrational anger. B₁₂ deficiency can also cause anemia. Children suffering from anemia exhibit many symptoms similar to those of autism. Vitamin B₁₂ is found only in animal products; liver is the richest source. Soy foods, which are popular in vegan diets, can increase the body's need for B₁₂.
- Vitamin A: This key nutrient is involved in every process that occurs in the body, from hormone production, to cell division, to immune system function, to energy production, to thyroid function and to reproduction and growth. True vitamin A only occurs in foods like liver, cod liver oil, butter and egg yolks. Carotenes in plant foods are the pre-cursors of vitamin A, but they are not good sources of vitamin A for humans. Human beings convert carotenes to vitamin A with difficulty, some people do not make this conversion at all, and babies and infants lack the enzymes to make vitamin A out of carotenes.
- Vitamin D: We can make vitamin D when sunlight interacts with cholesterol in the skin, but to get enough we need to consume vitamin D-containing foods, including animal fats like butter and lard, cod liver oil, organ meats like poultry liver, shellfish and oily fish. Vitamin D works with vitamin A every time we use a molecule of vitamin D, we need a molecule of vitamin A. For this reason, we do not recommend vitamin D supplements, only vitamin D from foods that also provide vitamin A.
- Vitamin K₂: Formerly known as the X Factor or the Price Factor, this nutrient works in concert with vitamins A and D to help build strong bones and teeth, support reproduction and nourish brain function. Vitamin K₂ helps us put calcium and phosphorous in the bones and teeth where they belong, and prevents their deposition in the arteries and other soft tissues, where they don't belong. We get vitamin K₂ from poultry fat and livers, lard and aged full-fat cheese, as well as egg yolks and butter from pasture-fed animals. Avoid vitamin K₂ supplements, which contain a form that the body does not use as well.

11 Dietary Principles

- **Complete Protein:** Plant foods contain some protein but never all the types of protein we need in one food. We can get a better plant protein profile if we combine pulses (beans and lentils) with grains. Nevertheless, studies show better growth and better health if animal foods are included in a diet containing beans and grains. Some amino acids, such as taurine and glycine, exist mostly in animal foods. Although the adult body can make these amino acids, we need extra amounts during pregnancy, growth and periods of stress.
- **DHA:** This is an omega-3 fatty acid that we get from seafood, cod liver oil, pastured eggs and organ meats. DHA is very important for neurological development and function.
- Arachidonic Acid (AA): This in an omega-6 fatty acid that we need for healthy skin, good digestion and an optimistic mood. We make important feel-good chemicals from AA. The only sources of dietary AA are animal fats and organ meats. We need both DHA and AA to be healthy, so it is important to include foods from land and sea in our diets.

Moreover, many nutrients present in plant foods are more easily absorbed from animal foods:

- **Zinc:** Zinc deficiency is usually the first deficiency to show up in those practicing vegetarianism—zinc is critical for reproduction and clear thinking, and helps form over one hundred enzymes, including enzymes involved in detoxification and mineral metabolism. (One zinc-containing enzyme is alcohol dehydrogenase, needed to process alcohol.) The best sources of zinc are red meat and shellfish. It is very difficult to get enough zinc from plant foods.
- **Calcium:** Animal foods are our best source of calcium; in fact, primitive peoples had only two good sources of calcium—raw milk products and bones. Those groups that did not have access to calcium-rich milk took pains to eat animal bones, either fermented or ground to a powder and added to their food. Raw milk products give human beings a distinct advantage if for no other reason than they provide abundant calcium

in an easily assimilated form. Plant foods do contain calcium but also contain compounds that block calcium absorption; and they are not as rich in calcium as milk and milk products; it takes at least forty carrots or four cups of cooked spinach to match the nine hundred milligrams of calcium in three cups of milk—and far less of the calcium in vegetables is absorbed, whereas, the calcium in raw milk is 100 percent absorbed.

- **Iron:** We need iron for healthy blood, for energy and for mental function. The most useable iron for human beings is heme iron found exclusively in animal products, especially in red meat and liver. Lack of iron in the diets of babies and children can lead to mental retardation and lack of social referencing (similar to the symptoms of autism).
- **Copper:** Copper works with iron to ensure that the iron goes to the blood where it belongs, and does not get deposited in the organs, where it does not belong. Good sources of copper are fish and shellfish. Copper also occurs in nuts and other plant foods, but in a form that is less readily absorbed.
- Vitamin B₆: The best source of vitamin B₆ is raw animal foods, such as raw milk, raw cheese, raw oysters and raw meat. Vitamin B₆ is very fragile and easily destroyed by heat. Some plant foods also provide plentiful B₆, especially ripe raw bananas. This nutrient serves as a co-factor for hundreds of reactions in the body, including the formation of feel-good chemicals, the creation of red blood cells, detoxification and gene expression.
- Vitamin B₃ (Niacin): This nutrient is involved in chemical reactions that provide your cells with the energy they need for normal metabolism; it is essential to the good health of your skin, digestive system and nervous system. Niacin helps activate over two hundred enzymes, the majority of which regulate the breakdown of carbohydrates, fats and proteins, which the body then uses for energy and for keeping the nervous system, digestive system, skin, hair and eyes healthy. The top sources of niacin are animal foods.

11 Dietary Principles

Often people feel better after switching to a vegetarian or vegan diet—at first! That's because they usually eliminate processed foods at the same time. But eventually nutritional deficiencies will set in. You may feel weak, tired, angry or depressed. A 2011 study published in *Nutrition and Health* found that vegetarians and vegans have more tooth decay, more allergies, more cancer, more mental illness, need more health care and have a lower quality of life than meat eaters. Usually, you can recover your health when you add some high quality animal foods to your diet.

But when babies and children are brought up on a vegan or vegetarian diet, the results can be tragic. Babies and children need animal protein and fat to grow normally. There are cases of parents sent to jail for child abuse or even murder because they insisted on feeding only plant foods to their growing children.

Many people become vegetarians or vegans because of their disgust with the cruelty of factory farming or their concern about the effects of animal production on the environment. We agree that modern animal agriculture is an abomination, bad for animals, bad for people who eat these animal products, and bad for the environment. However, the solution is not to stop eating animal products so necessary for our good health, but to consume eggs, meat and dairy products from animals humanely raised outside on pasture. Such practices ensure high levels of nutrients in the meat, milk and eggs, and they are also good for the environment. Properly carried out, grazing helps build healthy soil that retains water and sequesters carbon in the ground.

For further information:

Articles

- On meat and organ meats: westonaprice.org/food-features/meat-and-organ-meats/
- On vegetarianism: westonaprice.org/vegetarianism-and-plant-foods/vegetarianism/
- On regenerative grazing: westonaprice.org/farm-and-ranch/
- Vegetarian tour: westonaprice.org/about-us/vegetarian-tour/

Brochures

• Vegetarian and Vegan Diet Dangers (English and Spanish): westonaprice.org/about-us/brochures/

Journal

• Dangers of Vegetarianism; Spring 2008: westonaprice.org/journalspring-2008-dangers-of-vegetarianism/

Wise Traditions Podcast westonaprice.org/podcast/

- Episode 21: Principle 2: All Traditional Cultures Consume Sort of Animal Foods with Sally Fallon Morell
- Episode 231: Eating Nose to Tail with Bill Schindler, PhD
- Episode 236: Were our Ancestors Vegetarian? with Sally Fallon Morell
- Episode 213: Yes to Meat with Sally Fallon Morell
- Episode 109: Vegetarianism Explained with Natasha Campbell-McBride
- Episode 31: Vegetarianism Reconsidered with Lierre Keith

Video

• Animal foods: westonaprice.org/category/video/animal-foods/

Recipes

• Entrees: westonaprice.org/category/our-blogs/recipe-of-the-week/ entrees/