

Holistic Homestead Nutrition

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What is Nutrition?

Definition (Miriam-Webster): the act or process of nourishing or being nourished; *specifically* : **the sum of the processes** by which an animal or plant takes in and utilizes food substances...

The word "nourish" is etymologically related to the word "nurse" (to suckle) - nourishment is far more than the intake of required amounts of isolated nutrients

- Fats, protein, carbohydrates, minerals, vitamins
- Water
- Connection, emotions
- Sympathetic vs. parasympathetic nervous systems and digestion
- Bio-individuality and genetic/cultural backgrounds
- Absorption and bioavailability
- Co-factors
- Quality

What should we eat?

Yes Please

Quality - Balance - Diversity

Whole foods*

Lots of vegetables and fruits: fresh, cooked and fermented

Plenty of healthy fats: saturated, monounsaturated, polyunsaturated, omega 3, 6, 9

Adequate protein, throughout the day

Fresh, clean water

*some foods in their natural or "whole" forms contain compounds that bind nutrients, making them less available. Certain traditional "food processing" techniques such as fermentation and cooking, can enhance the nutrient availability of foods. Industrial food processing and refining damage and denature foods, rendering them less nutritious.

No Thanks

Artificial ingredients: colors, flavors (even "natural flavoring"), preservatives, etc.

Trans fats, hydrogenated fats/oils, damaged fats/oils

Processed, denatured, refined foods

Too much sugar and carbohydrates

Animal products from animals living in unhealthy conditions

(being fed inappropriate diets, including hormones and antibiotics)

Water

- The body is approximately 60% water
- Roles of water: transports nutrients, cushions and lubricates bones and joints, regulates body temperature, removes wastes/flushes toxins, helps maintain normal electrical properties of cells
- How much water? Body weight (lbs) / 2 = daily water intake in ounces

Fats

- Approximately 15% of body composition
- Shoot for 30% of total caloric intake in fats
- Body can manufacture all except 2 kinds: “essential” fatty acids, Linoleic Acid (Omega 6), Alpha-Linolenic Acid (Omega-3)
- Roles of fats: provide a concentrated source of energy, building blocks of cell membranes and hormones, cofactors in the absorption of fat-soluble vitamins (A, D, E, K), needed for protein metabolism, protect and cushion organs, help slow the absorption of food and regulate energy, make food taste good
- Most people in U.S. eat way too much omega-6 fats and not enough omega-3 fats

Homegrown fats: eggs, dairy, meat (quality depends on feed quality), seeds, nuts, some tropical fruits (not here though...)

Protein

- Approximately 18% of body composition
- Shoot for 30% of total caloric intake in protein
- All proteins are made of 20 different amino acid building blocks, 10 of which the body can synthesize, 10 of which are “essential” and need to come from the diet
- Body uses 50,000 different proteins to form organs, nerves, muscles, enzymes, antibodies, hemoglobin, hormones, neurotransmitters, DNA, and RNA

Homegrown protein: beans, peas, pulses, eggs, dairy, meat, seeds, nuts, some vegetables (broccoli, spinach, stinging nettles, potatoes, mushrooms)

Carbohydrates

- Approximately 2% of our body composition
- Shoot for 40% of total caloric intake in carbohydrates
- Body can make carbohydrates out of fat or protein, non-essential
- Roles of carbs: fuel for the brain, quick source of energy for muscles, help regulate fat and protein metabolism, source of fiber and polysaccharides (specific kinds of carbohydrates that support elimination of waste and immune function)

Homegrown carbohydrates: all vegetables and fruits, most concentrated in grains and starchy vegetables

Minerals

- Approximately 4% of body composition

- Body cannot manufacture any minerals, they all come from the diet (and essentially from the earth)
- 18 are known to be necessary for health (103 known total)
- Roles of minerals: act as cofactors for enzyme reactions, maintain pH balance and osmotic pressure in body, facilitate transfer of nutrients across cell membranes, maintain proper nerve conduction, help contract and relax muscles (including heart), help regulate tissue growth, provide structural and functional support (i.e. bones)

Homegrown minerals: minerals must be present in your soil for them to be present in the food you grow, they must be in your animals' feed in order to be present in their eggs/milk/flesh. Leafy greens, garlic, onions, beans, pulses, whole grains, seeds, egg yolks, and organ meats are some of the most mineral rich foods, but all vegetables and fruits grown on mineral-rich soil will have significant mineral contents.

Vitamins

- Less than 1% of body composition
- Most vitamins can't be manufactured by our bodies and come from plants (or animals who ate plants) in our diets
- Vitamins are very interactive! Lots of cofactors, some known, some unknown
- Roles of vitamins: coenzymes in metabolism, essential for growth, vitality, digestion, elimination, immune function, healing

Homegrown Vitamins: Fresh and fermented fruits and vegetables, whole grains, beans, organ meats, egg yolks, butter

Microbes and Enzymes

Huge subjects, lots still being discovered and understood about them. Both are very important in digestive process and therefore assimilation of all nutrients. Microbes are organisms and come from outside the body, including food and soil. Enzymes are proteins that are manufactured by the body (especially the pancreas) and come in through foods.

Resources

“Fortify your Life: Your Guide to Vitamins, Minerals and More” by Dr. Tieraona Low Dog
An amazing, up-to-date, easy to read book that breaks down vitamins and minerals, what they do, how much we really need, and the best food and supplement sources

“Know your Fats: The Complete Primer for Understanding the Nutrition of Fats, Oils, and Cholesterol” by Mary Enig. The author is a scientist, and not a writer, so this isn't the easiest read, but it clearly explains the differences between different kinds of fats and their roles in the body. The book presents scientific evidence that is counter to mainstream cultural understandings about dietary fats.

“The Big Fat Surprise: Why Butter, Meat and Cheese Belong in a Healthy Diet” by Nina Teicholz. The author is a journalist who dug deep into our country’s cultural relationship with dietary fats. She unearthed a lot of scandalous twisting and ignorance of science in the name of profit, and presents an unconventional, but scientifically supported, view on the roles of dietary fats. A fun, easy read.

“The Dorito Effect: The Surprising New Truth about Food and Flavor” by Mark Schatzker. A journalist, this author explores the connections between flavors in foods and their nutritional value. He discovers that naturally tastier food is more nutritious, and that we naturally self-select healthier foods (in the absence of flavor manipulation).

worldshealthiestfoods.com A useful (albeit clunky and old-school) website offering nutrient contents (including vitamins and minerals) of many foods

<https://caloriecontrol.org/healthy-weight-tool-kit/food-calorie-calculator/> An FDA run site where you can look up the calorie and macronutrient contents of most foods (it even has stinging nettles!)

Why Grow your own Nutrition?

- Fresh produce has highest vitamin content
- Many heirloom, open-pollinated, non-industrial plant varieties are more nutrient dense
- More affordable to eat lots of fresh, nutrient-dense foods
- Control over soil nutrition, chemical exposure, ripeness at picking, etc.
- Non-nutrient aspects of nourishment

Soil Nutrition

Beyond NPK

- Nitrogen, phosphorus, potassium the big 3 plant nutrients. Listed on all fertilizers. Similar to fats, protein, carbs for humans
- The foundation but by no means the whole picture
- Only focusing on NPK (especially N) can lead to plants that are weak, susceptible to disease, less tasty, and less nutritious.

Minerals

- 14 other minerals known to be used by plants
- Along with NPK, macronutrients are calcium, sulphur, magnesium, carbon, oxygen, hydrogen (last 3 from air and water)
- Micronutrients/trace minerals: iron, boron, zinc, manganese, chlorine, copper, molybdenum, nickel
- Like with human bodies, minerals are needed for lots of metabolic processes, essential for overall plant health and vitality.

What to do? Get your soil tested and add rock powders to remineralize, increase biological/microbial activity in soil to mobilize minerals

“The Intelligent Gardener” by Steve Solomon with Eric Reinheimer
growabundant.com
soilanalyst.org
loganlabs.com

Microbes

- Microbial life in the soil has a huge impact on plant health
- Microbes transform minerals and other nutrients into usable forms that can be taken up by plant roots
- Beneficial microbes can protect plants from pathogenic organisms

What do do? Compost, compost tea, reduced tillage, organic practices, remineralization

soilfoodweb.com

“The Hidden Half of Nature: Microbial Roots of Life and Health” by David R. Montgomery and Anne Bikie

Cooking

The missing link between homegrown nutrition and human health. If you grow it and don't eat it, it doesn't do you any good!

Limiting factors for home cookin'

- Access to ingredients
- Limited space
- Improper or not enough tools
- Lack of skills
- Lack of time
- Lack of enjoyment of cooking

Strategies to overcome limitations

Getting your hands on good ingredients

- Buy in bulk
- Grow your own
- Volunteer at a farm
- Glean
- Farmer's markets

If your kitchen is very small

- Fold-up kitchen island for prepping
- Raised cutting board to prep on kitchen table
- Consider an “overflow” kitchen storage area in another room
- Move your refrigerator outside

Essential tools

- A good knife and knife sharpener
 - japanwoodworker.com “Tosagata” brand knives (\$38-\$64)
 - #1000/#6000 Grit Combination Water Stone - King (\$42)
 - <https://www.cooksillustrated.com/articles/218-how-to-sharpen-kitchen-knives>
- Food processor with chopping attachment
- Blender
- Large cutting board
- Crock pot, “Instant Pot”

Resources to help learn techniques

- “The Art of Simple Food” by Alice Waters
- “Vegetarian Cooking for Everyone” and “Vegetable Literacy” by Deborah Madison
- “The River Cottage Meat Book” by Hugh Fearnley-Whittingstall
- “Odd Bits: How to Cook the Rest of the Animal” by Jennifer McLagan

cooksillustrated.com - Lots of great recipes and videos, including how-to's

americastestkitchen.com - Free show with lots of how-to's and step by step explanations of techniques, unfortunately more “mainstream” with many less healthy ingredients

foodwifery.com

Traditional foods cooking classes, shopping guides, recipes, quick how-to's, by two sweet, funny moms and Weston A. Price Foundation leaders who have self-educated in order to care for the health of their families.

\$20/month or \$99/year - Worth it if you are a beginner with home cooking nutrient-dense foods!

Time saving strategies

- Batch cooking: To eat all week, to freeze, to swap with friends
- Weekly cooking day: Prepare staples once each week
- Dishes/ingredients to always have on hand: stock/broth, various sauces and dips (vinaigrettes, miso-ginger, tahini, pestos, gravies, mayonnaise, hummus, etc.), peeled garlic, toasted or dehydrated nuts and seeds, gomasio, caramelized onions (frozen), tomato paste (home canned or store bought), good quality oils, herbs and spices

Making cooking more fun

- Cook with friends: Batch cook together, once a week, explore new recipes together, take turns preparing dinners on a set night, etc.
- Choose and explore themes: Ingredients, regional/cultural foods, dishes
- Podcasts, music, audiobooks