



Nutrients are things that we need to grow, repair and thrive. Traditionally considered to be food, water and air, research suggests that love, touch, movement, ritual, music, dance, laughter and justice are necessary for optimal health.

We are taught that food is primarily energy and material; however the signaling quality of food is increasingly recognized. There is a complex interaction between all three roles of food.

Food as Energy

Like a furnace, our metabolism must burn a certain amount of energy at a basal level, and at higher levels with exercise or other stressors. If we consume less than this number of calories the body must burn some of its own reserve (fat). Ingesting too much energy and then storing contributes to the global obesity epidemic. (The types of food and additives such as fructose add to the story)³. Attempting weight loss by simply decreasing energy input and increasing output—i.e. diet and exercise often fails long-term because food is also material and signal.

Food as Material

“Macro” nutrients, required in the large quantity of grams or pounds include protein, fat, carbohydrate, water and oxygen. “Micro” nutrient are needed in trace amounts (milli-grams or micro-grams) but are absolutely essential for function. These include vitamins, minerals, and certain plant-based substances that we cannot manufacture.

“Deficiency” diseases are those in which a critical nutrient is missing from the diet. Scurvy, causing frequent death in sea travelers, was cured by carrying lemons, which provided Vitamin C. Similar deficiency diseases include rickets (Vitamin D), pernicious anemia (B12) and others.

“Insufficiency” is when there is not deficiency, but levels are not optimal—surviving but not thriving. The RDA for Vitamin D might prevent rickets, but more is needed for D’s other functions, such as preventing osteoporosis, certain cancers, and other diseases. Other insufficiencies include Vitamin A, iodine and magnesium.

Our obsession with protein speaks to its role in building structural (i.e. collagen) and functional (i.e. enzymes) molecules. If the diet does not contain certain amounts of “essential” amino acids, manufacture of critical proteins comes to a halt. However, excess protein converts to fat and may overwhelm certain detoxification processes.

Certain fats are essential and must come from food. Omega-3 (“fish”) oils, for example, are a part of every cell’s membrane, and without sufficient levels, receptor molecules that sit in the membrane have altered response, contributing to, for example, diabetes, depression and pain. Hormonal and mood issues, especially after a 2nd or 3rd pregnancy are another example of insufficiency.

Food as Signal (Information)

The word “signal” refers to information and its packet. The signal is received by a receptor, whether it’s a visual image, a sound bite, touch or a molecule.

The body closely monitors the molecules that enter through the mouth, nose, skin, lungs and mucosa.

Molecules produced by digestion and probiotic bacteria inform deep processes which affect gene and epigene⁴ expression. The biorhythm or timing of food is also an important signal. What foods are eaten when, and the spaces between meals can have powerful effects.

Certain signals work in a graded means—the magnitude of response is proportional to the quantity ingested. In other cases, such as allergy, a single molecule can act as a switch or trigger, turning on or off a process that might then be difficult to reverse.

Food combining has been explored since the “natural hygiene” of the 1800’s. For example, eating protein with fruit or starch affects metabolic processes negatively.

Adding synthetic molecules, such as aspartame, trans fats, sugars, and proteins altered by genetic modification or heat (including pasteurization) signal processes that might manifest within seconds, years or generations⁴. The “cocktail effect” refers to the unknown effect of hundreds of natural and synthetic molecules (signals) that we accumulate in our bodies, and inherit from our ancestors.

When the ratio of energy intake to output is decreased (diet/exercise), the body’s programs signals “starvation mode”. The ensuing stress reaction mobilizes resources for survival—which can come from muscle and other tissues; so the weight loss is not all from fat, and metabolism can be permanently altered. This contributes to the re-gaining weight or sports injury that occurs in 95% of people following diet and exercise.

The subtle “energetics” of food considered in esoteric traditions involve these signaling qualities, rather than the energy that gets metabolically burned to do work.

Traditional Cuisines

Most cultures have addressed these issues by collecting experience over millennia. Fermentation, heating, sprouting, and specific combinations of herbs, spices and foods (such as rice and beans) integrate these aspects of nutrition. The quest to understand and integrate traditional methods with recent scientific discovery will continue to yield new and exciting ways to utilize food as medicine.

IMPORTANT NOTES:

1. **This educational material may not be used to influence medical care without supervision by a licensed practitioner.**
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3. Dr. Cheikin's website has references and related articles on “Stealth Infections”, “Allergy and Infection”, “Adrenal Fatigue” and others.
4. Epigenes are the software of the genes and modulate gene expression based on lifestyle and experience of the grandparents and parents.

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