Outline of nutrition

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The following outline is provided as an overview of and a topical guide to nutrition:

Nutrition – study of the relationship between diet and states of health and disease. The scope of nutrition science ranges from malnutrition to optimal health. Many common symptoms and diseases can often be prevented or alleviated with better nutrition. It is also called **nutrition science**.

Contents

Essence of nutrition

Main article: Nutrition

- Diet
- Dieting
- Eating

Branches of nutrition

- Nutrigenomics
- Nutrition physiology
- Prenatal nutrition
- Sports nutrition

History of nutrition

Main article: History of nutrition

- History of vitamins

- History of Vitamin B_1
- History of Vitamin B_3
- History of Vitamin B_6
- History of vitamin C
- History of Vitamin E

Nutrients

Macronutrients

Water

Protein

- Complete protein
- Protein combining
- Protein in nutrition

Amino acids

- Standard amino acids
  - Alanine
  - Arginine
  - Aspartic acid (aspartate)
  - Asparagine
  - Cystine
  - Glutamic acid (glutamate)
  - Glutamine
  - Glycine
  - Histidine
  - Isoleucine (branched chain amino acid)
  - Leucine (branched chain amino acid)
  - Lysine
  - Methionine
  - Phenylalanine
  - Proline
  - Serine
  - Threonine
  - Tryptophan
  - Tyrosine
  - Valine (branched chain amino acid)
- Other amino acids
  - Theanine

Fat

Saturated fats

- Butyric acid
- Caproic acid
- Caprylic acid
- Capric acid
- Lauric acid
- Myristic acid
- Pentadecanoic acid
- Palmitic acid
- Heptadec acid
- Stearic acid
- Arachidic acid
- Behenic acid
- Tetracos acid

Monounsaturated fats

- Myristol
- Pentadecenoic
- Palmitol
- Heptadecenoic
- Oleic acid
- Eicosen
- Erucic acid
- Nervonic acid

Polyunsaturated fats

- Linoleic acid
- Linolenic acid
- Stearidon
- Eicosatrienoic
- Arachidon
- Eicosapentaenoic acid (EPA) – an essential fatty acid
- Docosapentaenoic acid (DPA)
- Docosahexaenoic acid (DHA) – an essential fatty acid

Essential fatty acids

- Eicosapentaenoic acid (EPA)
- Docosahexaenoic acid (DHA)

Other fats

- Omega 3 fatty acids
- Omega 6 fatty acids

- Cholesterol

Fat substitutes

- Simplesse

Carbohydrates

Dietary fiber

- Soluble fiber
- Insoluble fiber

Starch

Sugars

- Monosaccharides
  - Fructose
  - Galactose
  - Glucose
- Disaccharides
  - Lactose
  - Maltose
  - Sucrose
- Alcohol

Sugar substitutes

- Artificial sugar substitutes
  - Acesulfame-K
  - Acesulfame potassium – 200× sweetness (by weight), Nutrinova, E950, FDA approved 2003
  - Alitame – 2,000× sweetness (by weight), Pfizer, pending FDA approval
  - Aspartame – 160–200× sweetness (by weight), NutraSweet, E951, FDA approved 1981
  - Cyclamate – 30× sweetness (by weight), Abbott, E952, FDA banned 1969, pending re-approval
  - Dulcin – 250× sweetness (by weight), FDA banned 1950
  - Neohesperidine dihydrochalcone – 1,500× sweetness (by weight), E959
  - Neotame – 8,000× sweetness (by weight), NutraSweet, FDA approved 2002
  - P-4000 – 4,000× sweetness (by weight), FDA banned 1950
  - Saccharin – 300× sweetness (by weight), E954, FDA approved 1958
  - Sucralose – 600× sweetness (by weight), Tate & Lyle, FDA approved 1998
- Natural sugar substitutes
  - Brazzein – Protein, 2,000× sweetness of sucrose (by weight), Exxx
  - Curculin – Protein, 550× sweetness (by weight), Exxx
  - Erythritol – 0.7× sweetness (by weight), 14× sweetness of sucrose (by food energy), 0.05× energy density of sucrose
  - Fructose

- Glycyrrhizin – 50× sweetness (by weight)
- Glycerol – 0.6× sweetness (by weight), 0.55× sweetness (by food energy), 1.075× energy density, E422
- Hydrogenated starch hydrolysates – 0.4–0.9× sweetness (by weight), 0.5–1.2× sweetness (by food energy), 0.75× energy density
- Isomalt – 0.45–0.65× sweetness (by weight), 0.9–1.3× sweetness (by food energy), 0.5× energy density, E953
- Lactitol – 0.4× sweetness (by weight), 0.8× sweetness (by food energy), 0.5× energy density, E966
- Mabinlin – Protein, 100× sweetness (by weight), Exxx
- Maltitol – 0.9× sweetness (by weight), 1.7× sweetness (by food energy), 0.525× energy density, E965
- Mannitol – 0.5× sweetness (by weight), 1.2× sweetness (by food energy), 0.4× energy density, E421
- Miraculin – Protein, *n*× sweetness (by weight), Exxx
- Monellin – Protein, 3,000× sweetness (by weight), Exxx
- Pentadin – Protein, 500× sweetness (by weight), Exxx
- Sorbitol – 0.6× sweetness (by weight), 0.9× sweetness (by food energy), 0.65× energy density, E420
- Stevia – 250× sweetness (by weight)
- Tagatose – 0.92× sweetness (by weight), 2.4× sweetness (by food energy), 0.38× energy density
- Thaumatin – Protein, 2,000× sweetness (by weight), E957
- Xylitol – 1.0× sweetness (by weight), 1.7× sweetness (by food energy), 0.6× energy density, E967

Micronutrients

Vitamins

- Avitaminosis (vitamin deficiency)
- Multivitamin
- Vitamin A (retinol)
- Vitamin B complex
  - Vitamin B_1 (thiamin)
  - Vitamin B_2 (riboflavin)
  - Vitamin B_3 (niacin)
  - Vitamin B_5 (pantothenic acid)
  - Vitamin B_6 group:
    - Pyridoxine
    - Pyridoxal
    - Pyridoxamine
  - Vitamin B_7 (biotin)
  - Vitamin B_8 (ergadenylic acid)
  - Vitamin B_9 (folic acid)
  - Vitamin B_{12} (cyanocobalamin)
  - Choline
  - Inositol
- Vitamin C (ascorbic acid)

- Vitamin D IU=mcg
- Vitamin E (tocopherol) IU=mg
- Vitamin K
- Biotin
- Carotenoids
    - Alpha carotene
    - Beta carotene
    - Cryptoxanthin
    - Lutein
    - Lycopene
    - Zeaxanthin
- Folate (DFE)

Minerals

- Boron
- Calcium
- Chloride
- Chromium
- Copper
- Fluoride
- Iodine
- Iron
- Magnesium
- Manganese
- Molybdenum
- Phosphorus
- Potassium
- Selenium
- Sodium
- Zinc

Organic acids

- Acetic acid
- Citric acid
- Lactic acid
- Malic acid
- Choline
- Taurine

Foods

Pyramid groups

- Fats
- Milk

- Meats (list)
- Fruits (list)
- Vegetables (list)
- Breads and grains

Qualities of food

- Diet food
- Fast food (*see also* Slow food)
- Frozen food
- Functional food
- Junk food
- Local food
- Organic food
- Raw food
- Slow food (*see also* Fast food)
- Taboo food and drink

General nutrition concepts

- Adaptogen
- Adenosine triphosphate (ATP)
- Adrenal exhaustion
- Advanced glycation endproduct
- Amino acid
- Appetite
- Artificial flavors
- Artificial sweeteners
- Avitaminosis
- Biosafety
- Blood sugar
- Body fat percentage
- Body mass index (BMI)
- branched chain amino acids (BCAA)
- Breakfast
- Calorie
- Calorie restriction
- Carbohydrate
    - Simple carbohydrate
    - Complex carbohydrate
- Carcinogen
- Cholesterol
- Chronic toxicity
- Codex Alimentarius
- Cognitive enhancer
- Complex carbohydrate
- Compulsive overeaters

- Daily value (DV)
- Dairy product
- Danger zone
- Deficiency disease
- Deep frying
- Detoxification
- Diabetes
- Diet
    - Dietary fiber
    - Dietary mineral
    - Dietary supplement
    - Dietetics
    - Dieting
    - Diet food
    - Dietitian
    - Healthy diet
- Digestion
- Digestive system
- Digestive tract
- Dinner
- Dose
- Drug
- DV (daily value)
- Eating disorders
- ECA stack
- Empty calorie
- Energy drink
- Enzymes
- Ergogenic aids
- Essential
    - Essential amino acid
    - Essential fatty acid
    - Essential mineral
    - Essential nutrient
    - Non-essential
    - Vitamin
- EFA (essential fatty acid)
- Essential fatty acids
- Fat soluble vitamins
- Fad diet
- Famine
- Fat
- Flavonoids
- Fiber, dietary
- Exercise
- Food
- Food additive

- Food allergy
- Food and cooking hygiene
- Food and Nutrition Service
- Food bank
- Foodborne illness
- Food craving
- Food energy
- Food faddism
- Food guide pyramid
- Food groups
- Food labelling regulations
- Food politics
- Food pyramid
- Food preservation
- Food preservatives
- Food processing
- Food processor
- Food quality
- Food Safety and Inspection Service
- Food Salvage
- Food science
- Food security
- Food sensitivity
- Food Stamp Program
- Food Standards Agency (UK)
- Food storage
- Food supplements
- Food technology
- Free radical
- Freezer burn
- French paradox
- Frozen food
- Fruit
- Functional food
- General Fitness Training
- Genetically modified food
- Glucose (monosaccharide)
- Glucose meter
- Glucose tolerance
- Glycemic index
- Glycemic load
- Glycogen
- Growth hormone
    - Growth hormone releaser
- HDL (high density lipoprotein cholesterol)
- Health
- Healthy weight

- Herb
- High density lipoprotein cholesterol
- Hypoglycemia
- Ideal weight
- Illnesses related to poor nutrition
- Incompatible Food Triad
- Inflammation
- Insulin
- Irradiation
- Isoflavones
- Kilojoule
- Lactoferrin
- Life extension
- Lipotropic nutrients
- Local food
- Meat
- Megadosing
- Megavitamin therapy
- Micronutrient
- Mineral
- Monounsaturated fat
- Multimineral
- Multinutrient
- Mutagen
- Nootropic
- Nutraceutical
- Nutrient
- Nutrient density
- Nutrigenomics
- Nutrition
- Nutritional facts label
- Nutritional genomics
- Nutrition and pregnancy
- Nutrition Labeling and Education Act
- Nutrition physiology
- Nutrition taboos
- Obesity
- Optimal weight
- Organic acid
- Organic food
- Orthomolecular medicine
- Overweight
- Pasteurization
- Phytochemicals
- Phytonutrients
- Prenatal nutrition
- Preventive medicine

- Prohormone
- Prostaglandins
- Recommended Dietary Allowances (RDA)
- Reference Daily Intake (RDI)
- Salad bar
- Saturated fat
- Seed
- Simple carbohydrate
- Somatotropin
- Snap freezing
- Spice
- Starch
- Sugar
- Sulfate
- Sulfite
- Supplement, dietary
- Sweetener
- Teratogen
- Thermogenics
- Toxicology
- Toxicity
- Toxins
- Trans fat / Trans-fatty acids
- Triglycerides
- Vacuum evaporation
- Vegetable

Diets and dieting

- Bodybuilding nutrition
    - Bodybuilding supplement
- Calorie restriction
- Cognitive enhancement nutrition
- Dietary supplement
- Fruitarianism
- Life extension nutrition
- Low-carbohydrate diet
- Prenatal nutrition
- Raw food diet
- Sports nutrition
- Vegetarianism
- Weight loss
- Yo-yo dieting

Nutrition problems

- Avitaminosis (vitamin deficiency)

- Nutrition transition

Behavioral problems

- Eating disorders
  - Binge eating
  - Bulimia
- Overeating

Nutrition politics

- Fat tax
- Health claims on food labels

Organizations

- Food and Drug Administration (FDA)
- Food and Drugs Act
- USDA

Nutrition scholars

- Durk Pearson and Sandy Shaw

Nutrition lists

- List of antioxidants in food
- B vitamins
- List of diets
- List of food additives
- List of foods by protein content
- List of foods named after people
- List of fruits
- List of herbs and spices
- List of illnesses related to poor nutrition
- List of meat animals
- List of macronutrients
- List of micronutrients
- List of nootropics
- List of phytochemicals in food
- List of edible seeds
- List of herbs and spices
- List of vegetables

See also

- Outline of exercise
- Outline of cooking

References

External links

- Diet, Nutrition and the prevention of chronic diseases (http://www.who.int/nutrition/topics/dietnutrition_and_chronicdiseases/en/) by a Joint WHO/FAO Expert consultation (2003)
- United States Department of Agriculture (USDA) Frequently asked questions (http://www.nal.usda.gov/fnic/foodcomp/Bulletins/faq.html)

Databases and search engines

- Nutrition Data Calculators (http://www.medicaladvices.com/)
- Compare the nutrients in 100 calories of any two foods (http://timothyhowe.com/cgi-bin/compfoods.pl)
- Nutrition Data (http://www.nutritiondata.com/)
- Recipe Nutrition - extends USDA database with friendly names for common ingredients, recipe nutrition calculator and additional specialized ingredients (http://www.recipenutrition.com/)
- USDA National Nutrient Database for Standard Reference (http://www.nal.usda.gov/fnic/foodcomp/search/) Search By Food
- USDA National Nutrient Database for Standard Reference Nutrient Lists (http://www.ars.usda.gov/Services/docs.htm?docid=13726) Search By Nutrient
- Nutritional Status Assessment and Analysis: E-Learning Course from FAO (http://www.foodsec.org/DL/dlcourselist_en.asp)

Governmental agencies and intergovernmental bodies

- UN Standing Committee on Nutrition (http://www.unsystem.org/scn/) - In English, French and Portuguese