What is this chapter about??

- Why should we care about nutrition?
- What are the nutrients in foods and what roles do they play in the body?
- What constitutes or forms a nutritious diet?
- How do people go about making changes to their diets?
<table>
<thead>
<tr>
<th>Nutrition is...</th>
<th>Food is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>the science of how <strong>food</strong> nourishes the body.</td>
<td>any substance that the body can take in and absorb that will enable it to stay alive and grow</td>
</tr>
<tr>
<td></td>
<td>supplies energy and nutrients</td>
</tr>
<tr>
<td>diet is...</td>
<td>nutrients are...</td>
</tr>
<tr>
<td>------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Foods and beverages a person usually eats and drinks.</td>
<td>Parts of food that are important for the body to function.</td>
</tr>
<tr>
<td>Provide: energy, serve as building material, help maintain or repair body parts, and support growth.</td>
<td></td>
</tr>
</tbody>
</table>
Nutrients include

1. water
2. carbohydrates
3. fats
4. proteins
5. vitamins
6. minerals
According to the definition of food what are some typical and atypical examples of food?
A Lifetime of Nourishment

◊ The nutrients in food support growth, maintenance, and repair of the body.

◊ Deficiencies, excesses, and imbalances of nutrients bring on the diseases of malnutrition.

When you choose foods with nutrition in mind, you can enhance your own well being.
Nutrition profoundly affects health.

Chronic diseases have a connection to a poor diet.

Which of these diseases are chronic?
Chronic diseases include:

- Heart disease
- Diabetes
- Some cancers
- Dental disease
- Adult bone loss
Chronic diseases

- Cannot be prevented by a good diet alone
- To some extent determined by genetics, activities, and lifestyle
Genetics and Individuality

◆ **Inherited disease** - condition that is passed from a parent to a child
  - Hemophilia, sickle cell anemia, Down syndrome, cystic fibrosis, and many others

◆ **Acquired disease** - condition that is associated with infections, lifestyle behaviors or diet
  - Heart attack, diabetes, stroke, mineral or vitamin deficiencies
Choice of diet influences long-term health within the range set by genetic inheritance.

Nutrition has little influence on some diseases but strongly affects others.
The Importance of Nutritional Genomics

Integration of nutrition, genomic science, and molecular biology.

- Looks at how nutrients affect the activities of genes and how genes affect the activities of nutrients.

- Expected to advance treatment of certain diseases.
Only two common lifestyle habits have a stronger influence on long-term health than dietary choices. Can you guess which?
- Smoking & other tobacco use
- Excessive alcohol consumption
Other Lifestyle Choices

- Tobacco use and alcohol and other substances can destroy health.
- Staying active, getting enough sleep, and stress can all affect health.
U.S. Department of Health and Human Services sets nutrition objectives for the nation each decade.

<table>
<thead>
<tr>
<th>Table 1-2 Healthy People 2010 Nutrition-Related Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Increase <em>nutrition education</em> among consumers and in educational settings at all levels.</td>
</tr>
<tr>
<td>- Increase the proportion of children, adolescents, and adults who are at a <em>healthy weight</em>.</td>
</tr>
<tr>
<td>- Reduce <em>growth retardation</em> among low-income children under age 5 years.</td>
</tr>
<tr>
<td>- Increase the proportion of persons aged 2 years and older who consume at least two daily servings of <em>fruit</em>.</td>
</tr>
<tr>
<td>- Increase the proportion of persons aged 2 years and older who consume at least three daily servings of <em>vegetables</em>, with at least one-third being dark green or orange vegetables.</td>
</tr>
<tr>
<td>- Increase the proportion of persons aged 2 years and older who consume at least six daily servings of <em>grain products</em>, with at least three being whole grains.</td>
</tr>
</tbody>
</table>
- Increase the proportion of persons aged 2 years and older who consume less than 10% of calories from *saturated fat*.
- Increase the proportion of persons aged 2 years and older who consume no more than 30% of calories from *total fat*.
- Increase the proportion of persons aged 2 years and older who consume 2,400 milligrams or less of *sodium*.
- Increase the proportion of adults with *high blood pressure* who are taking action to control their blood pressure.
■ Increase the proportion of persons aged 2 years and older who meet dietary recommendations for calcium.
■ Reduce iron deficiency among young children, females of childbearing age, and pregnant females.
■ Reduce anemia among low-income pregnant females in their third trimester.
■ Reduce key vitamin and mineral deficiencies in pregnant women.
■ Increase the proportion of children and adolescents aged 6 to 19 years whose intake of meals and snacks at school contributes to good overall dietary quality.
■ Increase the proportion of worksites that offer nutrition or weight management classes or counseling.
■ Increase the proportion of physician office visits made by patients with a diagnosis of cardiovascular disease, diabetes, or hyperlipidemia that include counseling or education related to diet and nutrition.
■ Reduce deaths from anaphylaxis caused by food allergies.
■ Increase the number of consumers and retail establishments who follow key food-safety practices and reduce key foodborne illnesses.
■ Increase food security among U.S. households and in so doing reduce hunger.

Nutrients – parts of food needed for the body’s functioning.

- Roles:
  - Provide energy
  - Building material
  - Maintenance and repair
  - Support growth
The nutrients that contain carbon are organic.

<table>
<thead>
<tr>
<th></th>
<th>Carbon</th>
<th>Oxygen</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
<th>Minerals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fat</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vitamins</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Minerals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Where does energy come from?
Where does energy come from?

Body uses energy when doing work

Energy comes directly from the sun by way of plants

When you eat plants you are getting the stored energy from the sun.

When you eat animal tissue you are eating compounds containing energy that came originally from the sun.
Food and the human body are made up of the same materials.
**Meet the Nutrients**

- **Essential nutrients** – must be obtained in the diet because the body does not make them
- Found in all 6 classes

<table>
<thead>
<tr>
<th>Nutrient Class</th>
<th>Essential nutrient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbohydrate</td>
<td>Glucose</td>
</tr>
<tr>
<td>Fat</td>
<td>Linoleic acid, linolenic acid</td>
</tr>
<tr>
<td>Protein</td>
<td>9 amino acids of 20</td>
</tr>
<tr>
<td>Vitamins</td>
<td>All 13</td>
</tr>
<tr>
<td>Minerals</td>
<td>25</td>
</tr>
<tr>
<td>Water</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Meet the Nutrients

Calorie/kilocalorie - the amount of heat energy needed to raise the temperature of one kilogram (1 liter) of water by 1°C

- Explode food pieces in a special water-lined chamber and measure the heat given off from the explosion
Gram – a unit of weight.

- For instance, one teaspoon of sugar weighs roughly 5 grams.
Meet the Nutrients

<table>
<thead>
<tr>
<th>ENERGY NUTRIENT</th>
<th>ENERGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbohydrate</td>
<td>4 cal/g</td>
</tr>
<tr>
<td>Fat (lipid)</td>
<td>9 cal/g</td>
</tr>
<tr>
<td>Protein</td>
<td>4 cal/g</td>
</tr>
</tbody>
</table>

NOTE: Alcohol contributes 7 calories/gram that the human body can use for energy. Alcohol is not classed as a nutrient, however, because it interferes with growth, maintenance, and repair of body tissues.
**Elemental diets** – diets with a precise chemical composition.

- Lifesaving for people who cannot eat ordinary food.
- Not appropriate over long periods for healthy people as “meal replacers” or “insurance” against malnutrition.
Food is better than supplements

- The digestive system can break down and absorb nutrients *most efficiently* from whole foods

- Eating provides physical, psychological, and social comfort for people as well

When you eat foods, you are receiving more than nutrients

*Can I Live On Just Supplements?*
Some foods offer beneficial non-nutrients called phyto-chemicals. Confer taste, color, and possible health benefits.
Foods come in a bewildering variety in the marketplace, but the foods that form the basis of a nutritious diet are basic foods.
The Abundance of Foods to Choose From

Table 1-5  Glossary of Food Types

The purpose of this little glossary is to show that good-sounding food names don’t necessarily signify that foods are nutritious. Read the comment at the end of each definition.

- **basic foods** milk and milk products; meats and similar foods such as fish and poultry; vegetables, including dried beans and peas; fruits; and grains. These foods are generally considered to form the basis of a nutritious diet. Also called whole foods.

- **enriched foods** and **fortified foods** foods to which nutrients have been added. If the starting material is a whole, basic food such as milk or whole grain, the result may be highly nutritious. If the starting material is a concentrated form of sugar or fat, the result may be less nutritious.

- **fast foods** restaurant foods that are available within minutes after customers order them—traditionally, hamburgers, french fries, and milkshakes; more recently, salads and other vegetable dishes as well. These foods may or may not meet people’s nutrient needs, depending on the selections made and on the energy allowances and nutrient needs of the eaters.

- **functional foods** a term that reflects an attempt to define as a group the foods known to possess nutrients or non-nutrients that might lend protection against diseases. However, all nutritious foods can support health in some ways; Controversy 2 provides details.

- **medical foods** foods specially manufactured for use by people with medical disorders and prescribed by a physician. For example, a medical food for arthritis is made from food-based ingredients but taken as capsules.

- **natural foods** a term that has no legal definition, but is often used to imply wholesomeness.

- **nutraceutical** a term that has no legal or scientific meaning but is sometimes used to refer to foods, nutrients, or dietary supplements believed to have medicinal effects (see Chapter 11). Often used to sell unnecessary or unproven supplements.

- **organic foods** understood to mean foods grown without synthetic pesticides or fertilizers. In chemistry, however, all foods are made mostly of organic (carbon-containing) compounds. (See Controversy 12 for details.)

- **partitioned foods** foods composed of parts of whole foods, such as butter (from milk), sugar (from beets or cane), or corn oil (from corn). Partitioned foods are generally over-used and provide few nutrients with many calories.

- **processed foods** foods subjected to any process, such as milling, alteration of texture, addition of additives, cooking, or others. Depending on the starting material and the process, a processed food may or may not be nutritious.

- **staple foods** foods used frequently or daily, for example, rice (in East and Southeast Asia) or potatoes (in Ireland). If well chosen, these foods are nutritious.
All foods once looked like this...
The Challenge of Choosing Foods

...but now many foods look like this.
How, Exactly, Can I Recognize a Nutritious Diet?

All of these factors help to build a nutritious diet.

Variety
Moderation
Calorie control
Balance
Adequacy
Elements of a Healthy Diet - ABCMV

- **Adequacy** - get enough of essential nutrients.

- **Balance** - contains a good proportion of nutrients. No overemphasis of a food group.

- **Calorie control** - choose foods to maintain ideal body weight.

- **Moderation** - eat any food in reasonable-size portions.

- **Variety** - eat different types of food to prevent boredom.
| Table 1-6 | What’s Today’s Excuse for Not Eating Well? |

If you find yourself saying, “I know I should eat well, but I’m too busy” (or too fond of fast food, or have too little money, or a dozen other excuses), take note:

- **No time.** Everyone is busy. In truth, eating well takes little time. Convenience packages of frozen vegetables, jars of pasta sauce, and prepared meats and salads are abundant in markets today and take no longer to pick up than snack chips and colas. Priorities change drastically and instantly when illness strikes—better to spend a little time now nourishing your body’s defenses than to spend time later treating illness.

- **Crave fast food.** Occasional fast-food meals can support health, if you choose wisely (see Chapter 5).

- **Too little money.** Eating right costs no more than eating poorly. Chips, colas, fast food, and premium ice cream are expensive. And serious illness costs more than a well person can imagine. By a 2005 USDA estimate, the needed fruits and vegetables can cost as little as 64 cents a day.

- **Like to eat large portions.** An occasional splurge, say, once a month, is a healthy part of moderation.

- **Take vitamins instead.** Vitamin pills cannot make up for consistently poor food choices. Food constituents such as fiber and phytochemicals are also important to good health.

- **Love sweets.** Sweets in moderation are an acceptable, and even desirable, part of a balanced diet.
Eating is an intentional act.

People choose:

- What to eat
- Where to eat
- Who to eat with
- How to prepare it
Food ways – the sum of a culture’s habits, customs, beliefs, and preferences concerning food.

Sharing ethnic food is a way of sharing culture.
Cultural and Social Meanings Attached to Foods

◊ Omnivore

− A person who eats food of both plant and animal origin, including animal flesh

◊ Vegetarian

− Lacto-ovo – animal products but no flesh
− Vegan – neither animal products nor flesh
Where do you fit in?

1. I eat everything.
2. I don’t eat red meat but I eat poultry/fish.
3. I am a lacto-ovo vegetarian
4. I am a vegan.
5. I eat fish but no other animal.
## Factors That Drive Food Choices

<table>
<thead>
<tr>
<th>Left Column</th>
<th>Right Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>Positive associations</td>
</tr>
<tr>
<td>Availability</td>
<td>Region of the country</td>
</tr>
<tr>
<td>Economy</td>
<td>Social pressure</td>
</tr>
<tr>
<td>Emotional comfort</td>
<td>Values or beliefs</td>
</tr>
<tr>
<td>Habit</td>
<td>Weight</td>
</tr>
<tr>
<td>Personal preference</td>
<td>Nutritional value</td>
</tr>
</tbody>
</table>
Nutrition is a science so scientists and dieticians work together to develop studies that are well designed, controlled, and reviewed by other experts.

Many studies take a long time to complete so information may not be available as quickly as most people would like it to be.
The Scientific Approach

OBSERVATION & QUESTION
Identify a problem to be solved or ask a specific question to be answered.

HYPOTHESIS & PREDICTION
Formulate a hypothesis—a tentative solution to the problem or answer to the question—and make a prediction that can be tested.

EXPERIMENT
Design a study and conduct the research to collect relevant data.

RESULTS & INTERPRETATIONS
Summarize, analyze, and interpret the data; draw conclusions.

HYPOTHESIS SUPPORTED

HYPOTHESIS NOT SUPPORTED

THEORY
Develop a theory that integrates conclusions with those from numerous other studies.

NEW OBSERVATIONS & QUESTIONS
The Scientific Approach: Research Designs – 4 types

Examples of research design

Epidemiological study
This country’s food supply has more olive oil and they have less heart disease.

Lab study
Let’s prove that a vitamin C deficiency leads to scurvy in these rats.
**Case study:**
This person eats too little iodine and has goiter.

**Intervention study:**
Let’s add foods with vitamin C to his diet and see if he gets fewer colds.
Once a finding is published, it is still only preliminary.

One experiment does not “prove” or “disprove” anything.

Must be duplicated, supported, and challenged by other scientists.

A finding that has stood up to repeated rigorous testing may become a theory.
Can I Trust the Media to Deliver Nutrition News?

◊ Read nutrition information with an educated eye

◊ Consider the source of the information
  - Is it from a reputable journal? A magazine? An Internet chat room? A talk show? Your mother???
There are two ongoing national scientific research projects:

1. National Health and Nutrition Examination Surveys (NHANES)
   - Asks about 50,000 people what they have eaten
   - Records measures of their health status
1. Continuing Survey of Food Intakes by Individuals (CSFII)

- Records what people have actually eaten for two days
- Compares the foods they have chosen with the recommended food selections
Refereed journals: Review journals examine all available evidence on major topics; research journals report details of the methods, results and conclusions of recently completed experiments.
Making Diet Changes

- Nutrition knowledge is useful if it helps people improve their diets.
- People need to change behaviors.
Taking inventory and setting goals

- Track food intake over several days and compare to standards
- Set small, achievable goals in areas that need changing
Psychologists describe 6 stages of behavior change

<table>
<thead>
<tr>
<th>STAGES OF CHANGE</th>
<th>ACTIONS TO TAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precontemplation: People in this stage are not considering a change and have no intention to change; they see no problem with their current behavior.</td>
<td></td>
</tr>
<tr>
<td>Contemplation: People in this stage admit that change may be necessary; they are weighing the pros and cons of both changing and not changing.</td>
<td></td>
</tr>
<tr>
<td>Preparation: People in this stage are getting ready to make a change in a specific behavior area; they are taking some initial steps, and they often set some goals.</td>
<td></td>
</tr>
<tr>
<td>Action: People in this stage are committing time and energy to making a change; they are following guidelines set forth for a specific behavior.</td>
<td></td>
</tr>
<tr>
<td>Maintenance: People in this stage strive to integrate the new behavior into everyday life; they are working toward making their new behaviors permanent.</td>
<td></td>
</tr>
<tr>
<td>Adoption/Moving On: People in this stage are beyond the fear of relapse; the former behavior is extinguished and the healthy behavior has taken its place.</td>
<td></td>
</tr>
</tbody>
</table>

*a The psychologists J. Prochaska and C. DiClemente call this the Transtheoretical Model of Behavior Change.*
Obstacles to Change

- Obstacles can cause lapses
- Lapses can arise in these general areas:
  - Competence
  - Confidence
  - Motivation
Motivation is based on rewards

Rewards are affected by:

- Value
- Timing
- Costs
- Probability
As you read this book, little reminders entitled **Start Now** appear at the end of each chapter.

They invite you to go to the ThomsonNOW Internet website to take inventory of your current behaviors and set goals for needed changes.
| Behavior change follows a predictable pattern. |
| Motivation is the force that moves people to act. |
| It is affected by the weights people give to the rewards and the consequences that follow the action. |
Food Feature

How can I get enough nutrients without consuming too many calories?

- **Nutrient Density** – a measure of nutrients per calorie.
Food Feature

Nutritious Breakfast vs. Doughnut Breakfast

Higher Nutrient Density

Lower Nutrient Density
Which food is the most nutrient dense?

a. Oreo cookie
b. Chicken soup
c. Milk shake
d. Skim milk

Answer: d
Controversy: Sorting the Impostors from the Real Nutrition Experts

Who speaks on nutrition?
Controversy: Sorting the Impostors from the Real Nutrition Experts

<table>
<thead>
<tr>
<th>Table C1-1 Misinformation Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>advertorials</strong></td>
</tr>
<tr>
<td><strong>anecdotal evidence</strong></td>
</tr>
<tr>
<td><strong>fraud</strong> or <strong>quackery</strong></td>
</tr>
<tr>
<td><strong>infomercials</strong></td>
</tr>
<tr>
<td><strong>urban legends</strong></td>
</tr>
</tbody>
</table>
Controversy: Sorting the Impostors from the Real Nutrition Experts

A SCIENTIFIC BREAKTHROUGH! FEEL STRONGER, LOSE WEIGHT, IMPROVE YOUR MEMORY ALL WITH THE HELP OF VITE-O-MITE! OH SURE, YOU MAY HAVE HEARD THAT VITE-O-MITE IS NOT ALL THAT WE SAY IT IS, BUT THAT'S WHAT THE FDA WANTS YOU TO THINK! OUR DOCTORS AND SCIENTISTS SAY IT'S THE ULTIMATE VITAMIN SUPPLEMENT. SAY NO! TO THE WEAKENED VITAMINS IN TODAY'S FOODS. VITE-O-MITE INCLUDES POTENT SECRET INGREDIENTS THAT YOU CANNOT GET WITH ANY OTHER PRODUCT! ORDER RIGHT NOW AND WE'LL SEND YOU ANOTHER FOR FREE!

Too good to be true
Enticingly simple answers to complex problems. Says what most people want to hear. Sounds magical.

Suspicions about food supply
Urges distrust of the current methods of medicine or suspicion of the regular food supply. Provides “alternatives” for sale under the guise of freedom of choice.

Testimonials
Support and praise by people who “felt healed,” “were younger,” "lost weight," and the like as a result of using the product or treatment.

Fake credentials
Uses title “doctor,” “university,” or the like but has created or bought the title—it is not legitimate.

Unpublished studies
Scientific studies cited but not published anywhere and so cannot be critically examined.

Persecution claims
Claims of persecution by the medical establishment or claims that physicians “want to keep you ill so that you will continue to pay for office visits.”

Authority not cited
Studies cited sound valid but are not referenced, so that it is impossible to check and see if they were conducted scientifically.

Motive: personal gain
Those making the claim stand to make a profit if it is believed.

Advertisement
Claims are made by an advertiser who is paid to promote sales of the product or procedure. (Look for the word “Advertisement,” in tiny print somewhere on the page.)

Unreliable publication
Studies cited are published, but in a newsletter, magazine, or journal that publishes misinformation.

Logic without proof
The claim seems to be based on sound reasoning but hasn't been scientifically tested and shown to hold up.
## Identifying Valid Nutrition Information

### TABLE C1-2: Credible Sources of Nutrition Information

Professional health organizations, government health agencies, volunteer health agencies, and consumer groups provide consumers with reliable health and nutrition information. Credible sources of nutrition information include:

- Professional health organizations, especially the American Dietetic Association’s National Center for Nutrition and Dietetics (NCND) [www.eatright.org/ncnd.html](http://www.eatright.org/ncnd.html) also the Society for Nutrition Education [www.sne.org](http://www.sne.org) and the American Medical Association [www.ama-assn.org](http://www.ama-assn.org)

- Government health agencies such as the Federal Trade Commission (FTC) [www.ftc.gov](http://www.ftc.gov) the U.S. Department of Health and Human Services (DHHS) [www.os.dhhs.gov](http://www.os.dhhs.gov) the Food and Drug Administration (FDA) [www.fda.gov](http://www.fda.gov) and the U.S. Department of Agriculture (USDA) [www.usda.gov](http://www.usda.gov)

- Volunteer health agencies such as the American Cancer Society [www.cancer.org](http://www.cancer.org) the American Diabetes Association [www.diabetes.org](http://www.diabetes.org) and the American Heart Association [www.americanheart.org](http://www.americanheart.org)

- Reputable consumer groups such as the Better Business Bureau [www.bbb.org](http://www.bbb.org) the Consumers Union [www.consumersunion.org](http://www.consumersunion.org) the American Council on Science and Health [www.acsh.org](http://www.acsh.org) and the National Council Against Health Fraud [www.ncahf.org](http://www.ncahf.org)
TABLE C1-3  Is This Site Reliable?

To judge whether an Internet site offers reliable nutrition information, answer the following questions.

- **Who is responsible for the site?** Clues can be found in the three-letter “tag” that follows the dot in the site’s name. For example, “gov” and “edu” indicate government and university sites, usually reliable sources of information.

- **Do the names and credentials of information providers appear? Is an editorial board identified?** Many legitimate sources provide e-mail addresses or other ways to obtain more information about the site and the information providers behind it.

- **Are links with other reliable information sites provided?** Reputable organizations almost always provide links with other similar sites because they want you to know of other experts in their area of knowledge. Caution is needed when you evaluate a site by its links, however. Anyone, even a quack, can link a webpage to a reputable site without the organization’s permission. Doing so may give the quack’s site the appearance of legitimacy, just the effect the quack is hoping for.

- **Is the site updated regularly?** Nutrition information changes rapidly, and sites should be updated often.
Is the site selling a product or service? Commercial sites may provide accurate information, but they also may not, and their profit motive increases the risk of bias.

Does the site charge a fee to gain access to it? Many academic and government sites offer the best information, usually for free. Some legitimate sites do charge fees, but before paying up, check the free sites. Chances are good you’ll find what you are looking for without paying.

Some credible websites include:

National Council Against Health Fraud
www.ncahf.org

Tufts University
www.navigator.tufts.edu

Stephen Barrett’s Quackwatch
www.quackwatch.com

Federal Trade Commission’s
Operation Cure All
www.ftc.gov/opa/2001/06/cureall.htm

Centers for Disease Control and Prevention’s Current Health Related Hoaxes and Rumors
www.cdc.gov/hoax_rumors.htm

Nutrition on the Net

Type search terms here

Refine the search by setting limits

Use tutorial resources to answer questions

- Enter one or more search terms, or click Preview/Index for advanced searching.
- Enter author names as smith jc. Initials are optional.
- Enter journal titles in full or as MEDLINE abbreviations. Use the Journals Database to find journal titles.

PUBMED (www.pubmed.org) Internet resource
### Who Are the True Nutrition Experts?

<table>
<thead>
<tr>
<th><strong>Table C1-4</strong> Terms Associated with Nutrition Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>American Dietetic Association (ADA)</strong> the professional organization of dietitians in the United States. The Canadian equivalent is the Dietitians of Canada (DC), which operates similarly.</td>
</tr>
<tr>
<td><strong>dietetic technician</strong> a person who has completed a two-year academic degree from an accredited college or university and an approved dietetic technician program. A <strong>dietetic technician, registered</strong> (DTR) has also passed a national examination and maintains registration through continuing professional education.</td>
</tr>
<tr>
<td><strong>dietitian</strong> a person trained in nutrition, food science, and diet planning. See also <strong>registered dietitian</strong>.</td>
</tr>
<tr>
<td><strong>license to practice</strong> permission under state or federal law, granted on meeting specified criteria, to use a certain title (such as <strong>dietitian</strong>) and to offer certain services. Licensed dietitians may use the initials LD after their names.</td>
</tr>
<tr>
<td><strong>medical nutrition therapy</strong> nutrition services used in the treatment of injury, illness, or other conditions; includes assessment of nutrition status and dietary intake, and corrective applications of diet, counseling, and other nutrition services.</td>
</tr>
</tbody>
</table>
- **nutritionist** someone who engages in the study of nutrition. Some nutritionists are RDs, whereas others are self-described experts whose training is questionable and who are not qualified to give advice. In states with responsible legislation, the term applies only to people who have master of science (MS) or doctor of philosophy (PhD) degrees from properly accredited institutions.

- **public health nutritionist** a dietitian or other person with an advanced degree in nutrition who specializes in public health nutrition.

- **registered dietitian (RD)** a dietitian who has graduated from a university or college after completing a program of dietetics. The program must be approved or accredited by the American Dietetic Association (or Dietitians of Canada). The dietitian must serve in an approved internship, coordinated program, or preprofessional practice program to practice the necessary skills; pass the five parts of the association’s registration examination; and maintain competency through continuing education. Many states also require licensing for practicing dietitians.

- **registration** listing with a professional organization that requires specific course work, experience, and passing of an examination.

---

*aThe five content areas of the registration examination for dietitians are food and nutrition; clinical and community nutrition; education and research; food and nutrition systems; and management. New emphasis is placed on genetics, complementary care, and reimbursement.*
Who Are the True Nutrition Experts?

<table>
<thead>
<tr>
<th><strong>TABLE C1-5</strong> Selected Responsibilities of a Clinical Dietitian</th>
</tr>
</thead>
<tbody>
<tr>
<td>The first six items on this list play essential roles in medical nutrition therapy as part of a medical treatment plan. Dieticians also play leading roles in health promotion and disease prevention.</td>
</tr>
<tr>
<td>- Assesses clients’ nutrition status.</td>
</tr>
<tr>
<td>- Determines clients’ nutrient requirements.</td>
</tr>
<tr>
<td>- Monitors clients’ nutrient intakes.</td>
</tr>
<tr>
<td>- Develops, implements, and evaluates clients’ medical nutrition therapy.</td>
</tr>
<tr>
<td>- Counsels clients to cope with unique diet plans.</td>
</tr>
<tr>
<td>- Teaches clients and their families about nutrition and diet plans.</td>
</tr>
<tr>
<td>- Provides training for other dietitians, nurses, interns, and dietetics students.</td>
</tr>
<tr>
<td>- Serves as liaison between clients and the foodservice department.</td>
</tr>
<tr>
<td>- Communicates with physicians, nurses, pharmacists, and other health-care professionals about clients’ progress, needs, and treatments.</td>
</tr>
<tr>
<td>- Participates in professional activities to enhance knowledge and skill.</td>
</tr>
</tbody>
</table>
### Table C1-6

**Terms Describing Institutions of Higher Learning, Legitimate and Fraudulent**

- **accredited** approved; in the case of medical centers or universities, certified by an agency recognized by the U.S. Department of Education.

- **correspondence school** a school that offers courses and degrees by mail. Some correspondence schools are accredited; others are diploma mills.

- **diploma mill** an organization that awards meaningless degrees without requiring its students to meet educational standards.
Detecting Fake Credentials

Sassafras and Charlie display their professional credentials