



# Finding the Truth I:

## Reliable Nutrition and Health Information

Julie Garden-Robinson, Ph.D., R.D., L.R.D., Food and Nutrition Specialist



**The last weight control diet you will ever need!**

**Lose pounds while you sleep!**

**Contains rare elements your body must have!**

**Removes waste products from your body!**

**Supplementation is vital in today's world!**

**Revolutionizes nutrition science!**

Claims such as these are everywhere! Everyone — your hairdresser, grocery clerk, next-door neighbor — has some nutrition breakthrough to share. You find these “breakthroughs” in the latest news release from a research institution, this month’s men’s and women’s magazines, talk shows, infomercials and a multitude of websites. What’s the truth and what’s not?

Each year, billions of dollars are spent on worthless and sometimes potentially harmful nutrition and health advice. It comes in the form of magazines, books, treatments, supplements, gadgets, programs and special diets. Keeping up with each new study, fad, fraud, cure, exposé, warning or hope that is being promoted or reported by someone is impossible.

However, we can build a box of tools to help us analyze these claims. Our best option is to have a plan for looking at information before it confronts us because all of us can be fooled some of the time. A preplan can give us a head start in making a rational decision. We can’t count on others to protect us. Each of us needs to determine what makes sense and what doesn’t.

Consider these points before making a decision or choice:

### Yes or No?

#### 1. Does the advice or product promise a quick fix?


Complicated medical problems seldom have quick, effortless or simple solutions.

#### 2. Does the advice cast doubts about current food or lifestyle practices?

You need to question a pitch that makes us feel guilty or inadequate. Many worthless products are sold to make us look or feel younger, sexier or more popular. Question whether you need the product to make you healthier, or can you make some changes for a healthier you? Often some changes in our lifestyle,

**NDSU**

EXTENSION



diet and exercise habits are what could help us feel better and more energetic, not some “special” product or food.

### 3. Does it sound too good to be true?

Be careful when a product is advertised as a “cure” for serious diseases such as cancer, heart disease or arthritis. Delaying medical treatment could have serious consequences. Be careful when a product is being sold for many different conditions. Some of the lists run the whole gamut of the body from migraine headaches to ingrown toenails, from fatigue to allergies.

### 4. Does the advice draw simple conclusions from complex studies?

Stories on new research findings frequently omit details that would enable you to judge how the study could relate to your diet and nutritional needs.

### 5. Are recommendations based on a single study?

One study may not prove anything, but several studies in which evidence accumulates bit by bit can uncover the truth.

### 6. Does the advice cast doubts about reputable scientific organizations?

Do not be made skeptical or fearful by implication. Seek facts that support or counter accusations.

### 7. Does the advice provide lists of bad and good foods?

Variety is not only the spice of life; it is the basis of a safe and healthy diet. Don’t exclude foods or food groups. What you don’t eat can affect your health, too. No miracle food or product is available, and healthy individuals have no forbidden foods. For example, a vegetable such as broccoli has components that contribute to better health. That does not mean “broccoli pills” are necessary or will provide the same benefits. Combinations of truth, misinformation and distorted logic are often difficult to sort out.

### 8. Is a product being sold as the solution to the problem?

Keep in mind that the seller may be more interested in your money than your health. These people usually are very convincing, and many of them are true believers in what they are selling.

### 9. Does the advice refer to studies reported in nonscientific sources?

Publication in a peer-reviewed journal is a good indication that an expert panel has reviewed the claims. Success based on testimonials and case studies do not prove the usefulness or safety of any product. (For example: Aunt Matilda was crippled

with painful arthritis and cured with bee pollen and XYZ supplement.) Testimonials may be genuine or fabricated, and in some instances, the person providing the testimonial is paid for his or her effort. Listen to commercials. How often are products promoted with “doctors recommend” or “I use”? Who are these doctors, these I’s? What does a “star” or “big name” endorsement really mean?

### 10. Does the advice include recommendations drawn from studies that ignore differences among individuals or groups?

Animals and people are different. Men and women are different. Also, age, economics, race and many other factors are important.

Each **Yes** answer raises a red flag. Dig a little deeper and look a little further when the flags go up.



## What is a Good Study?

You can recognize a good study by asking yourself the following questions and considering these points:

#### How many studies have produced these results?

One study may not prove anything, but several studies can provide a base for changing health habits.

#### Why was the study performed?

Is the study to determine the cause and effect or to explore a possible relationship between two things?

#### Did the study show an association between two factors or actually show a causal relationship?


For instance, studies have shown an increased incidence of cancer in English-speaking countries. Clearly, other factors besides language may be responsible. This does not mean the English language is the cause of cancer

#### Did the study include a control or comparison group?

A study without a control or comparison group is unsound. Having a basis for comparison is important.

#### How long was the study and how many subjects were included in it?

The fewer the number of subjects and the shorter the time, the greater the chance that the findings are wrong. If the age and sex of the subjects are different than yours, the results may not apply to you.



### Was the study a double-blind design?

In this type of study, neither the researcher nor the subject knows who is receiving the drug or special food or diet, and who gets the placebo (the regular food or the “sugar pill”). This prevents bias in the way researchers collect and interpret data and in how the subjects report information.

## What’s the Harm?

Misinformation and product scams can be harmful to people in a number of ways. Some of the more likely harmful results are:

### Failure to seek needed medical care

Early and timely diagnosis and treatment of some conditions can be lifesaving.

### Failure to continue essential treatment

Example: You decide to take garlic in place of your prescribed high blood pressure medication.

### Nutrient toxicities

Too much of even good things, such as iron, can be harmful.

### Potentially toxic components in foods or products

The best way to minimize exposure to any one toxin is to eat a variety of foods from many sources in moderate quantities.

### Undesirable nutrient-drug interactions

Example: Even though high doses of vitamin E may not be toxic, they can interfere with vitamin K action and enhance the effect of anticoagulant (blood-thinning) drugs.

### Interference with sound nutrition practices

A balanced diet is basic to good health.

### Economic loss

You’ve lost money that could be spent on healthful foods when you spend it on purported remedies and cures that do not work.

### Adverse effect on public policy

## The Words

A seller or promoter may shower you with all kinds of scientific-sounding terms, phrases and explanations that mean nothing to you. Many of them may have little meaning but can be intimidating and sound convincing. These should not make you buy the product or idea. Discuss claims made with trained professionals who can help you understand the message.

### Listen to the Words

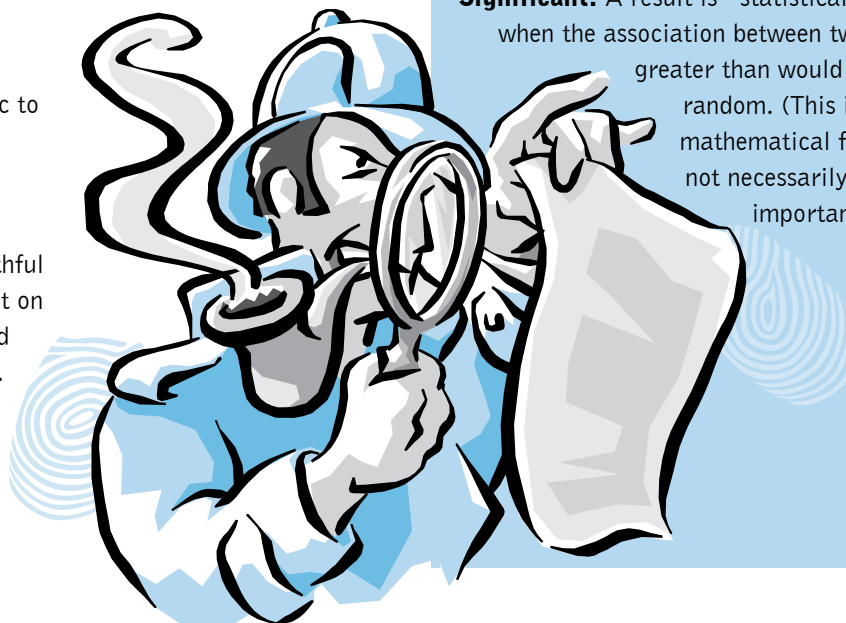
#### When Science Reports: It Does NOT Mean:

Contributes to; is linked to; associated with	Causes
May	Will
Suggests; indicates	Means or proves
Some scientists believe	All scientists believe
In some people	In all people
Animal studies show	Human studies would show
High intakes elevate X	Low intakes decrease X

**Breakthrough:** happens only now and then. The word is overused today and has little meaning.

**Doubles the risk or triples the risk:** Do you know what the risk was in the first place? If the risk was one in a million and you double it, that’s still only one in 500,000. If the risk was one in 100 and doubles, that’s a big increase.

**Significant:** A result is “statistically significant” when the association between two factors is greater than would occur at random. (This is worked out by a mathematical formula.) It does not necessarily mean major or important.



## How Can You Find Reliable Information?

Each person will make decisions in his or her own way. How do you do it? Compare how you make decisions about your food, nutrition and health to how you'd buy a car. Do you get all the information you need from one salesperson? Do you visit with people who have no training or experience? Do you look at magazines with a history of reporting on automobiles? Do you buy a special luggage rack when you don't need it? What else do you do to prepare yourself for making a wise car choice?

Treat yourself to the same assurance when making food, nutrition and health choices. Many reliable sources of information are available to you. These include scientific and professional associations, government agencies, the Extension Service, nutrition departments at accredited colleges and universities, nutrition departments at local hospital/medical centers and clinics, reputable consumer organizations and reliable industry groups.

Check to be certain that the people you consider as experts are indeed credible sources. People may claim credentials that may not be legitimate, are overrated or are from some dubious field of science. Registered dietitians, licensed nutritionists and Extension agents are good sources of reliable information on food and nutrition topics.



The old adage still holds true:  
"If it sounds too good to be true,  
it probably is."

For more information on this and other topics, see [www.ndsu.edu/extension](http://www.ndsu.edu/extension)

NDSU Extension does not endorse commercial products or companies even though reference may be made to tradenames, trademarks or service names. NDSU encourages you to use and share this content, but please do so under the conditions of our Creative Commons license. You may copy, distribute, transmit and adapt this work as long as you give full attribution, don't use the work for commercial purposes and share your resulting work similarly. For more information, visit [www.ag.ndsu.edu/agcomm/creative-commons](http://www.ag.ndsu.edu/agcomm/creative-commons).

County commissions, North Dakota State University and U.S. Department of Agriculture cooperating. NDSU does not discriminate in its programs and activities on the basis of age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable. Direct inquiries to Vice Provost for Title IX/ADA Coordinator, Old Main 201, NDSU Main Campus, 701-231-7708, [ndsu.eoaa@ndsu.edu](mailto:ndsu.eoaa@ndsu.edu). This publication will be made available in alternative formats for people with disabilities upon request, 701-231-7881. web-1-24

## Health and Nutrition-related Websites to Explore

These websites offer free evidence-based information about health and wellness.

**Academy of Nutrition and Dietetics:** provides information on nutrition and health  
[www.eatright.org](http://www.eatright.org)

**Centers for Disease Control and Prevention:** provides health information on diseases, health risks and prevention guidelines  
[www.cdc.gov](http://www.cdc.gov)

**Food and Drug Administration:** regulates food and drugs, and oversees dietary supplements  
[www.fda.gov](http://www.fda.gov)

**Federal Citizen Information Center:** provides consumer information on topics ranging from food/health to computers and cars  
<https://bookstore.gpo.gov/agency/federal-citizen-information-center>

**Healthfinder:** a U.S. Department of Health and Human Services gateway site that provides links to reviewed resources on consumer health  
[www.healthfinder.gov](http://www.healthfinder.gov)

**U.S. Dietary Guidelines for Americans:** Tips about healthful eating, which are updated based on current research every five years  
[www.dietaryguidelines.gov](http://www.dietaryguidelines.gov)

**NDSU Extension:** has many online publications and links to reliable information sources  
[www.ag.ndsu.edu/food](http://www.ag.ndsu.edu/food)

This publication was authored by Julie Garden-Robinson, NDSU Extension food and nutrition specialist, and Pat Beck, retired NDSU nutrition specialist, 2004.