



# Nautilus®

AMERICA'S FITNESS MAGAZINE

10  
Things  
You Should  
Know About  
Losing  
Weight

Measuring  
Body Composition:  
What's Normal?

From Fats to Fowl

Get Fit for  
the Ski Season

Training for the  
Weekend Games

\$2.50

CANADA \$2.95

WINTER 1993

Consumers are frequently tempted, teased and seduced by brilliant promises of losing flab, gaining muscle and getting fit. The health and fitness industry — perhaps more than any other — has been raped and pillaged by hordes of unscrupulous entrepreneurs who are sometimes severely under qualified to dispense information and seek only to make a quick and easy profit on the naiveté of others. It's estimated that 18 million Americans are bilked of at least \$2 billion each year by "nutritional" supplements, special foods, books and quack devices that are reputed to solve a wide spectrum of nutritional ills with almost supernatural powers.

### The "Snake Oil Salesmen"

Nutritional quackery and outright fraud are nothing new to consumers. During the 1800s, an early form of consumer rip-off flourished in rural America, combining free amusement with the sale of "secret" goods supposedly having curative capabilities. These traveling "medicine shows" began innocently enough with complimentary entertainment given by various performers to an unsuspecting audience. Soon afterward, "snake oil salesmen" would peddle their magical elixirs and tonics in colored glass bottles as remedies for assorted ills, aches and pains to the gullible masses. After this climactic appeal, the performers circulated throughout the crowd to sell the "doctor's" product. Quite often, the first bottle was bought by an accomplice who was planted among the spectators.

The snake oil salesmen of today still target naive consumers with health products that pledge miracles. There are some notable distinctions, however, between the two eras. For one thing, the promises of curing heartburn and annihilating coughs has shifted priorities — under the guise of nutritional supplementation — to that of melting fat and building muscle. The covered wagon and touring medicine show has been replaced by huge mail-

order businesses and "nutrition" or "health food" stores. Further, the potential profits from this multi-billion dollar industry are far greater for today's charlatans than for that of yesteryear's.

### Consumer Protection

Two of the federal government's regulatory arms that protect the public are the Food and Drug Administration (FDA) and the Federal Trade Commis-

sion. The company's claims was that Mega-Pak had been developed by a team of the world's most renowned nutritional biochemists, exercise physiologists and trainers. To avoid a lengthy and highly visible battle, Weider agreed to make \$400,000 available for consumer redemption to those who had purchased the products and saved the original receipt and box.

### The Art of the Seduction

Make no mistake about it: the supplement industry is a big business. Unfortunately, the current medical information about nutritional supplements doesn't support the performance-enhancement claims of the manufacturers. As a matter of fact, virtually none of the products deliver what they promise. Therefore, the highly-sophisticated marketing tactics used to attract consumers are sometimes very aggressive and cunning. Advertisements about a product can also be misleading, if not purely deceptive. Here's a sampling of the common practices that manufacturers use to deceive consumers:

#### Questionable "research"

To influence consumers, many companies have falsely claimed involvement in recent "breakthroughs" or "scientific research" or had "secret research results." Companies also typically reference in their ads studies that were performed by others. In reality, most of this research is so unscientific that it's basically worthless. The research cited is frequently poorly controlled and rarely objective. For these reasons, much of the research noted by manufacturers to endorse their

products has never been accepted for publication in reputable professional journals that are peer reviewed. To persuade consumers, other studies referenced in ads are usually outdated or taken out of context.

#### Patent numbers

Another common deceptive practice is the use of patent numbers to give the false impression that the U. S. Patent Office has approved of the product. The

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sion (FTC). Both organizations have been safeguarding consumers since the early 1900s.

In 1985, the FTC flexed its regulatory muscles against Weider Health and Fitness for two products claiming to create muscle: Dynamic Life Essence and Anabolic Mega-Pak. The company was accused of "engaging in deceptive acts and practices" and "disseminating false advertisements." Among

patent office is not concerned whether a product is effective—its only task is to distinguish one product from another. So a patent says nothing about the effectiveness of a product; it merely denotes a distinctive difference among products.

#### **“Natural” products**

Many nutritional supplements claim to improve performance “naturally” or even “legally.” Because a product claims to have “natural” ingredients doesn’t mean that it’s necessarily safe. Several natural substances can cause serious harm, including high potency doses of some vitamins, minerals and certain herbs. For example, large doses of the natural stimulants found in the herb ginseng can cause hypertension, insomnia, depression and skin blemishes.

#### **Product labels**

Supplement labels rarely contain the false claims found in ads for the same product. Untruthful or misleading information on food labels could arouse action by the FDA since only factual data is allowed on labels. As a way around this, some companies place misleading information in their ads — instead of the labels — where they may be ignored by the FTC. For the record, many products purchased from nutrition stores or mail-order companies aren’t even subject to inspection by the FDA. Therefore, the exact content of such compounds is unknown and may not be represented accurately on the list of ingredients. Some products may even contain small amounts of banned substances such as testosterone or other anabolic steroids or may actually be anabolic steroids but not labeled as such.

#### **Nebulous terminology**

Scientific-sounding names can be confusing and, at the same time, appealing — particularly to those who are looking for quick and easy results. Many ads contain ambiguous language and rely upon the inability of consumers to understand complex terms.

Numerous supplements have catchy brand names to bait consumers. Many of the names combine an image of action (e.g. hi-test, energizer) with bodybuilding lingo (e.g. mass, cuts) and scientific — or pseudo-scientific — terminology (e.g. anabolic, biobolic). The idea is to make the product sound unique, irresistible and absolutely essential for a consumer’s nutritional needs.

#### **Professional endorsements**

Some manufacturers have made claims about their products by implying or falsely stating endorsement by professional groups. For instance, some products claim to be “university tested” which may actually mean that someone inside a university was merely involved. In other cases, university testing may not have even occurred.

#### **Personal testimonials**

For the right price, athletes and other individuals can be quite eager to offer testimonials to promote practically any product. In addition, the popular before-and-after snapshots can be easily faked.

#### **Bodybuilding magazines**

A sampling of recent issues of four popular bodybuilding magazines by the N.Y. Department of Consumer Affairs revealed that 56 percent of the full-page ads were for “worthless and possibly even harmful nutritional supplements.” For the most part, these



publications are essentially nutritional supplement catalogs that are neatly packaged with some articles on training.

#### **Policing the Industry**

The FDA and the FTC would like to take more action to protect the public against all the misleading advertising and quack claims, but both agencies have rather limited resources. In a recent three-year period, the FDA has actually taken 40 legal actions against dietary supplement manufacturers, most on the grounds of fraudulent therapeutic claims or concerns about safety. Nevertheless, the FDA devotes less than one percent of its enforcement resources to dietary supplements. Likewise, the FTC does not have the time, money or personnel to monitor the advertising practices of supplement manufacturers.

#### **Is There a Need for Supplements?**

Skillful promoters of nutritional supplements have bestowed protein, amino acids, vitamins, minerals, herbs and other substances with almost supernatural virtues having the ability to do practically everything imaginable. Most of the claims are purely speculative with little or no scientific basis. Here’s a closer examination of these supplements:

#### **Protein and amino acids**

The need for megadoses of protein by those who engage in rigorous physical activity has been drastically exaggerated and overrated by health food hucksters. In fact, there are no significant nutritional benefits ob-

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tained from the intake of additional protein. Protein is critical to your daily existence, but it doesn't produce any superhuman powers. Furthermore, any excessive dietary protein is either filtered through your kidneys or stored as fat.

Amino acids — the so-called "building blocks" of protein — have been promoted for years as an absolute requirement for obtaining maximal muscle size. This hype-inspired use of amino acids by large numbers of individuals has generated considerable concern for consumer safety. In 1992, the Federation of American Societies for Experimental Biology reviewed the scientific literature on the safety of amino acids and reported that there is insufficient scientific evidence to establish safe intake levels of the amino acid supplements on the market. Additionally, the American Council of Science and Health recommends: "Unless you are participating in a scientific study conducted by reputable researchers, you should not take amino acid supplements since they have not been proven safe." The dangers of amino acid supplementation were tragically illustrated several years ago when the amino acid L-tryptophan was associated with at least 1,500 cases of painful muscle disorder, including at least 38 deaths.

In short, the effect on the body of the single amino acids contained in many nutritional supplements is still not fully understood, and their use in special supplements should be avoided altogether.

#### Vitamins and minerals

Vitamins and minerals — like proteins and amino acids — have always been linked somehow to magical powers. Most people have the attitude that if the recommended dietary requirement is good, then more must be better. But while it's true that a deficit of vitamins and minerals can make you unhealthy, consuming more than you need doesn't necessarily make you any healthier. Vitamins and minerals make up more than 80 percent of the sales in the dietary supplement market. When sold without disease claims and at reasonable potencies — as most of them are — they pose no safety problems and, therefore, are of no particular regulatory concern to the FDA. However, megadoses of vitamins can lead to serious medical complications. Excessive intake of vitamins B and C can place an inordinate amount of stress on the liver and kidneys. An excessive intake of vitamins A and D can produce liver cancer while excessive vitamin E may cause headaches, fatigue, blurred vision and hypoglycemia.

Finally, many products contain minerals for which the National Academy of Sciences has not established RDAs (Recommended Dietary Allowances). One nutritional product, for example, has an abundance of ingre-

dients "from natural sources of Pacific Ocean mineral-rich seabeds." Imagine that. Unfortunately, there's no evidence that many of the minerals that are frequently listed on product labels are needed in the human body.

#### Herbs et al

Many of these substances come with express or implied disease-related claims and are marketed for specific therapeutic purposes for which there may not be valid scientific support. The truth is that a large number of them have no recognized role in nutrition. Additionally, several herbals can be seriously harmful. For example, the medical literature contains reports of severe liver toxicity linked to such widely-used herbs as chaparral, comfrey and germander. There are similar safety



concerns with high potency enzymes, inert glandules and animal extracts.

#### Food for Thought

It seems we have a pharmaceutical solution in pill form for virtually every health-related problem. It would serve us all well to remember, however, that no known herb or any other substance can "burn" fat or facilitate its metabolism. The only real method of using fat is exercise.

If you are consuming a variety of foods that provide adequate calories and nutrients, most experts would agree there's no need for supplements. Research has concluded that nutritional supplements have little or no positive influence on performance and may even be physiologically damaging. If you took the money used to purchase these expensive supplements and invested in high-quality foods instead, you'd be much more successful in maximizing your potential in a far safer manner. Remember, there are no shortcuts.

*Matt Brzycki is the strength coach and health fitness coordinator at Princeton University. He has authored more than 90 articles on strength and fitness and a book, "A Practical Approach to Strength Training," which is in its second edition. He also co-authored the book "Conditioning for Basketball."*

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