
part I

HOW TO CHOOSE THE BEST HERBAL SUPPLEMENT

The best attitude with which to approach the herbal marketplace is open-minded skepticism.

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THE ENCYCLOPEDIA OF POPULAR HERBS

“GUARANTEED Potency!” “Organically Grown!” “Standardized Full-Spectrum Extracts!” “Clinically Proven by Doctors!”

As you scan the huge selection of herbal supplements on the shelves these days, label claims such as these bombard your senses. Gone are the days when your doctor recommended an herbal remedy that was dispensed by your friendly neighborhood pharmacists. Today’s herbal consumer is faced with the daunting task of trying to make heads or tails of label claims, promotional literature, and even store clerks guiding them toward the herbal supplement that’s supposedly the best choice. Winning the Power Ball lottery often seems easier.

I wish I had an easy answer for you. Unfortunately, herbal regulations in the United States leave most of the work up to you, the herbal consumer. While I do see positive trends in quality control and quality assurance as well as increased education of health care professionals, it’s important that you do your homework before purchasing an herbal

supplement. In addition to the obvious considerations such as proper labeling of ingredients and responsible claims, this education may help you more effectively address a health concern successfully. Equally important is knowledge about safety issues such as side effects or potential drug interactions associated with the herbal supplement you are considering.

THE SELF-ACTUALIZATION MODEL AND HERBAL SUPPLEMENTS

During both undergraduate and postgraduate studies in psychology, I was impressed with Dr. Abraham H. Maslow's theory of self-actualization. Maslow argued that each person has a hierarchy of needs that must be satisfied, ranging from basic physiological requirements to love, esteem, and, finally, self-actualization. As each need is met, the next higher level in the emotional ladder dominates our conscious functioning. Therefore, people who lack food or shelter or who cannot feel safe are unable to move up the ladder and express higher needs. Maslow believed that persons who satisfied the highest level of psychological needs were able to fully integrate all components of their personality, or self.

While baldness, an expanding waistline, and teenagers reminding me of my shortcomings have provided a challenge to my sense of self in the past few years, I've often thought Maslow's model has some application to herbal supplements. Not implying that herbs have a sense of self, the theory provides a framework for us to look at what steps are necessary for an herbal supplement to reach the status of "best."

Figure 1.1 is an attempt to place these criteria in a hierarchy that starts at the bottom as basic requirements and ends with those factors that would elevate an herbal supplement above its peers.

While my hierarchy clearly reflects my bias toward clinically proven herbal products, considering some or all of these requirements in the order presented should help guide your attempt to select the "best" herbal supplement. Let's expand our look at what goes into making an herbal supplement the best in its class.

How to Choose the Best Herbal Supplement

FIGURE 1.1. HERB QUALITY, SAFETY, AND EFFICACY HIERARCHY



GROWING, HARVESTING, AND STORAGE

When looking at an herbal supplement, our primary concerns are normally whether it is high quality, actually works, and is safe. However, our self-actualization model has to start with the time the seed is planted to time of harvest. The level of certain active constituents in plants can vary depending on the type of soil in which they're grown, the local climate, and harvesting time. Perhaps equally important is how the herbs are stored. Improper storage can lead to contamination and poor-quality raw materials going into the tincture bottle, capsule, or tablet on the shelf.

As the production of herbal products has become more sophisticated, so has the business of growing them. Be sure the company you are buying your herbs from has full knowledge of the source of their herbs.

One other note of importance here is the issue of sustainability. As the herb industry has exploded, the demand of increased sources of certain plants has followed. While wild crafting is a popular concept, it is often unrealistic in these times. American ginseng, goldenseal, and even echinacea have all been threatened by overzealous harvesting in the wild.

Controlled cultivation of herbs on farms helps decrease the risk of certain plant species becoming extinct and is also good for the economy.

GOOD MANUFACTURING PRACTICES

As we work up our hierarchy, numbers 2 through 4 are among the key considerations in deciding the quality of an herbal product. *Good manufacturing practices* (GMPs) is the blanket term used to cover the steps a company must take to ensure the quality of its product. While not fail-safe, GMPs reduce the risk of poor quality leading to safety concerns and lack of effectiveness in the herbal supplement you are buying.

Companies following GMPs will usually have laboratory facilities either in-house or through a reputable contract laboratory that allows for proper identification of the herb. The first question by an herbal manufacturer should always be “Do we have the right herb?” While an experienced botanist may be able to take the first steps of plant identification based on leaf shape, type of flowers, or root configuration, chemical profiling using sophisticated procedures such as high-performance liquid chromatography (HPLC) allows for more accurate identification. This is particularly applicable to standardized extracts with known chemical markers that allow for the development of a common “fingerprint” for an herb.

Next in our GMPs comes the issue of purity. It’s important for herb manufacturers to test herbs for contaminants (sometimes called *adulterants*). These could be something as simple as weeds or some other plant that have made their way into the bulk herbal product. More important, purity testing also is a checkpoint for contaminants such as pesticides, heavy metals, bacteria, mold, and even animal or insect contamination.

Next we reach the issue of potency. In many traditional practices of herbal medicine, this quality was determined by the senses: taste, smell, and sight. How the herb tasted, smelled, or looked was often the key to whether an herbalist would choose the plant for medical use. As noted earlier, the development of laboratory analyses, including HPLC, often make this part of our GMP journey easier and more reliable. It is impor-

tant to keep in mind that determining potency is much easier for those plants with identified active constituents that can be measured. Examples include bilberry, kava, ginkgo, and milk thistle.

Finally, a frequently overlooked issue related to potency is stability. While more related to a finished product that is already in a capsule or tablet, the issue of shelf life is critical to its effectiveness. Some companies automatically slap a three- or four-year expiration date on their products without performing the necessary tests to accurately determine stability. It's important to buy herbal supplements from suppliers that actually perform stability testing to see how long the potency of their product survives on the shelf. The Food and Drug Administration helped this process a bit in 1999 by passing a ruling that requires manufacturers labels to be 100 percent accurate when it comes to potency claims.

STANDARDIZATION

The past two decades have seen an explosion of standardized herbal extracts. This movement has primarily been driven by the influx of standardized extracts from Europe such as bilberry, feverfew, ginkgo, horse chestnut, and St. John's wort. Typically sold in capsule or tablet form, standardized extracts, as we'll note in Part 2, typically guarantee a consistent range of certain constituents from batch to batch in the finished product. This is typically expressed on the label as a percentage of the total weight of the extract.

Standardized extracts have become popular among health care professionals because they allow for more consistency in dosing. Based on the concentration of certain active constituents, these products often have an advantage of delivering a more powerful and efficient medicinal punch. Bilberry extract is a classic example. While you can eat several bowls of blueberries daily to equal the effect you might get with a couple of capsules of bilberry extract, you might be using your improved vision to read magazines on the toilet! Due to the proprietary nature of some of these extracts in Europe, they often have clinical studies supporting their safety and effectiveness. These factors have placed standardized extracts somewhere between our traditional perceptions of herbal remedies and mod-

ern pharmaceutical drugs.

It's important to remember that the term *standardization* has become a marketing hook with some products. Standardization implies consistency in a product, and not strength. Although many extracts are standardized to constituents that are medically active in the body (e.g., silymarin in mild thistle and kava lactones in kava), the term may also be extended to *marker* compounds that are used for quality control purposes only. Examples include valerenic acid in valerian and echinacosides in echinacea. This means it's best to consider standardization on an herb-by-herb basis and not buy into a blanket concept that encompasses all herbs.

Standardized extracts are a relatively new development in the long history of herbal medicine and represent only a small minority of what's currently available among herbal products.

PACKAGE CLAIMS AND DIRECTIONS

An herbal manufacturer that you can depend on for quality herbal supplements should be one that gives an accurate depiction of what's inside the bottle or package. Ingredient lists should not only include such issues as accurate identification, potency, and stability—as already discussed—but also encompass full disclosure of what else is in the product. Companies should disclose all additives and excipients used in their products.

Also critical are the instructions for use on the label. Ideally these should be based on clinical research experience with the product in question. Lacking clinical studies to support dosing, herbal pharmacopoeias and textbooks from Europe are the next best bet. Guidelines established by organizations such as the British Herbal Pharmacopoeia, German Commission E, and the European Scientific Cooperative on Phytotherapy often provide dosage guidelines that are based on clinical and historical use of the herb in question.

Full disclosure regarding safety issues is also important to a quality herbal supplement. What are common side effects? Can pregnant or lactating women use the herb safely? Is it safe for children? Are there any drug interactions to be concerned about? All of these are important questions that should be considered when creating an herbal supplement label or package insert.

Finally, are the structure and function claims on the label accurate? We discussed DSHEA and structure and function claims in the foreword. So you know the FDA expects companies to base these claims on valid scientific evidence supporting them. The ideal win-win situation is if these claims are based on research done on the actual product in the package. As we'll note later, *clinically proven* takes us to the top of our self-actualization ladder. Lacking actual clinical studies, companies should at least be aware of the clinical data on related products and create their claims accordingly. While I'm not a fan of this fallback position, it at least provides some guidelines for companies to follow in creating responsible claims.

Use books such as this one to educate yourself about what the scientific literature says about an herbal supplement. Match this up with the claims on the label. If there are notable discrepancies, then move on down the shelf!

CLINICALLY PROVEN

The pinnacle of our self-actualization is clinical proof of safety and effectiveness. While I don't downplay historical evidence of safety and effectiveness, modern clinical studies give us added focus and assurance of these important considerations. It helps us have a more accurate sense of what dosage to use and for how long. You're likely to have a greater sense of what side effects or potential drug interactions may occur. Finally, the claims on the package are based on firsthand experience, not borrowed information.

That's why my gold standard is those products that have been tested in modern clinical studies. If you look at most clinically proven herbal

supplements currently available in the United States (please see Part 3 for a listing of some of these products), you'll note that all of our other requirements to reach the status of "best" have been addressed.

I encourage you to support companies that have gone to the trouble to manufacture products that have reached the top of our self-actualization model. This is your assurance that they are more likely to offer products of the highest quality and are willing to answer questions accurately about their products.

SELF-ACTUALIZATION AND THE HERBAL CONSUMER

OK, so now that the checklist for the herbs is complete, here are a few more pointers to help your herbal self-actualization. These will be echoed throughout the book and should be a conscious part of your choice to use herbal supplements.

1. Read, read, read! As is the case with anything we use medicinally, information on herbs changes rapidly. Try to keep up with your reading of quality books on herbs and databases such as those mentioned in the Resources section at the back of the book.
2. Follow label directions. As we'll note in Part 2, just because you think it's safe because it comes from a plant doesn't mean there's no potential for side effects. Carefully follow dosage recommendations, and don't decide on your own that more is better than less.
3. If you want to use an herbal supplement to treat an ailment or disease, talk to a qualified health care professional first. This is particularly critical if you're taking medication.
4. Be wary of using herbs together with prescription or over-the-counter medications. Again, your doctor or pharmacists may help guide you here.
5. Buy from stores that are committed to educating their employees. Educated employees are more likely to give you accurate information based on quality material provided by credible manufacturers and their own reading. Avoid those stores that try to steer you toward a product because of profit margins or self-interest.

6. You usually get what you pay for. Standardized herbal products that have reached the level of “best” in their class are often more expensive than those that haven’t. So, be prepared to pay a little more for quality, clinically proven herbal products. Don’t reach for ground-up saw palmetto berries, for example, when a standardized liposterolic extract is what’s been clinically proven to treat prostate enlargement.

Watch out, herbal manufacturers and retailers—we’re self-actualized and comin’ to get you!