



Alternative Medicine

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CHAPTER 1

PURSUING ALTERNATIVE MEDICINE



Alternative medicine remains very popular. Several surveys have found that roughly one-third of adults in the United States use some form of complementary and alternative medicine.¹ But what are these people using? Is what they are using safe? An accurate picture of the situation is complicated.

If you've decided to try alternative medicine, you may have had difficulty finding accurate information. Our book provides a summary of the best scientific evidence available on dozens of the most popular products and therapies. We also examine the spiritual benefits and risks from an orthodox Judeo-Christian worldview. This book may well be

the only one on alternative medicine that is both evidence-based and faith-based.

Alternative medicine includes many things — some good, some bad. There is the potential for great benefit, but there is also the potential for serious harm. Before trying any remedy or therapy, give careful consideration to the whole area of alternative medicine.

First we need to define a few terms. What do we mean by “alternative medicine”? What do we mean by “evidence-based”? And what do we mean by “faith-based”? The first question we'll examine here. The two others will be our concern in each of the next two chapters.

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What Is Alternative Medicine?

Many would like to replace the term “alternative medicine” with “complementary and alternative medicine” and its acronym, CAM. The term “alternative” suggests that people use these approaches instead of conventional medicine. However, surveys have found that most people combine all these approaches to medicine. In other words, alternative medicine is most typically used to complement (or supplement) standard health care. Hence, the term “complementary” is preferred by some. We will use “alternative medicine” since that term remains most popular in everyday discussions. We use it in its broadest sense to include therapies and remedies used instead of or along with conventional medicine.

What is included within alternative medicine varies considerably from one definition to another. The simplest definition, and the one we will use, is that alternative medicine includes any therapy or remedy that is not generally accepted or provided by the dominant medical establishment in a given culture. Alternative medicine has a number of general characteristics:

- **Passed over by conventional medicine,** alternative medicine includes remedies, therapies, and healing systems that conventional Western health care professionals are unlikely to provide their patients. The dominant medical establishment tends to look with disfavor (or disgust) on alternative medicine, or views its approaches as going beyond the proper domain of medicine. Sometimes, alternative medicine claims to have been pushed aside by practitioners of

conventional medicine for reasons of political or financial gain.

- **Holistic approaches** to health care are commonly stressed in alternative medicine. This means different things to different practitioners, but in general they treat the body, mind, and spirit. It also means relying on noninvasive “natural” methods of healing with an emphasis on disease prevention. Although conventional medicine can be holistic, physicians usually do not stress that fact.
- **Spirituality** is frequently addressed within alternative medicine, though often in ways that are unfamiliar or alien to Christianity (and to other major religions such as Judaism and Islam). Without understanding the roots of a particular therapy, you may find yourself involved with a theology dangerously different from what the Scriptures teach or what Jesus would want his followers doing.
- **Little good-quality scientific evidence** is available to support many of alternative medicine’s assertions about healing. However, as we will show, some aspects of alternative medicine have excellent scientific support yet are not utilized by many conventional Western physicians. Other therapies, with proper testing, might garner support for their claims. Without such evidence, no one, not even an expert in alternative medicine, knows for certain whether the untested, unproven alternative therapies actually have healed anyone or not. All we know is that patients relate how they were helped or cured or went into remission after using an alternative therapy.

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Before you embark on any path that takes you into the world of alternative medicine, even to buy an herbal remedy suggested by a friend, we recommend that you investigate the realities of alternative medicine — the prospective benefits *as well as* the potential costs and the risks you might face. Not all stories are positive.

Hazel (in this book, the cases are real; the names and some of the details have been changed to protect patients' confidentiality) struggled for months with terrible pain in her shoulder. She avoided her physician, afraid she would be urged to take powerful painkillers with nasty side effects or to undergo surgery. So she went to a variety of alternative therapists who said they could massage or manipulate the problem away. Her shoulder would be a little better after each session but soon would hurt again.

Hazel tried all sorts of supplements and went on special diets. No improvement. She was told that the problem was with her energy and could be resolved if she had her energy "cleared." She tried Therapeutic Touch and then Reiki (see Therapeutic Touch and Reiki entries). She felt more relaxed after the sessions, but then the pain would return. Over-the-counter pain relievers helped a little, and Hazel began to wonder if she should give conventional medicine a try.

Frustrated, in constant pain, and unable to use her arm, she consulted Walt. A brief history, a physical exam, and an X-ray quickly revealed a condition called "chronic bursitis." An injection of a nonabsorbable steroid into the bursa — a common and proven conventional treatment — gave Hazel full use of her crippled shoulder within fifteen minutes. Hazel cried, realizing she had needlessly suffered chronic pain for so long while trying alternative medicine.

We don't label alternative medicine as good or bad. Our book points out the *proven* benefits and the *unproven* claims. We expose and explain the risks that many purveyors of alternative therapies appear to be concealing. We will present the background out of which various alternative therapies and remedies arose. And we will also look at what the use of alternative therapies could mean for a Christian. We have tried to anticipate your heartfelt questions and concerns so we can provide objective answers.

We have *nothing* to sell (except this book). We want you to have the best information, the best evidence, so that you can make the best and wisest decisions for your health.

In Part 2 we will discuss each of the most popular alternative therapies available today in North America. Many of these are also popular in Europe, Asia, and Australia. The entries in this section explain the origins of the therapies, give evidence of effectiveness, and list reasons for caution or concern.

Part 3 will give detailed information on popular herbal remedies, dietary supplements, and a few vitamins. We have chosen those popularly used as a form of self-help and available without much direction in health food stores, drugstores, and many supermarkets and on the Internet. Here, too, you'll be able to read our recommendations along with any cautions and concerns.

We know that some people will disagree with our conclusions. Some will reject our insistence on high-quality evidence, saying it's not available yet or can't be provided for particular therapies and remedies. Some claim research costs too much. Yet supplements are now big business, producing large profits, some of which should be put into properly testing the products to protect people using them.

Others may agree with us in general but disagree with specific recommendations. Understandably,

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those who practice, promote, or sell therapies and remedies will not want to see criticism of things they value or on which they base their living. We accept such disagreements and welcome discussion about our conclusions. We stand ready to change our opinions on one condition: that high-quality evidence be produced that persuades us to change our recommendation. Those familiar with our first edition will see that we have changed some recommendations, based on new evidence. But heartfelt stories or impassioned pleas or appeals based on flawed research will not persuade us to change our recommendations — nor should they persuade you.

Conventional Medicine Takes an Interest in Alternative Medicine

As more research is done, we believe that conventional medicine and alternative medicine will increasingly be used together (hence the move toward CAM). Some alternative therapists recognize the potential of a holistic approach in contemporary conventional medicine and work in tandem with medical physicians to give high-quality care. And many conventional medicine practitioners recognize that one or more alternative therapies might benefit their patients when used in tandem with surgery and pharmaceuticals.

Increasing numbers of doctors, nurses, and other health care professionals are incorporating the best of both approaches into what is called “integrative medicine.”² Professional continuing medical education (CME) courses also are providing information on alternative medicine. In fact, some of the most popular CME courses for doctors, nurses, and phar-

macists focus specifically on alternative medicine. Pharmacies are increasingly making alternative remedies available, although natural food and health food stores, the Internet, and mail-order companies still account for most of these sales. Some areas of alternative medicine have become more popular even while sales in other areas have decreased. In 2003, overall herbal remedy sales in the United States dropped, but homeopathy sales grew by 3 percent overall and by almost 50 percent in mainstream outlets such as drugstores.³ In addition, pharmaceutical companies have begun distributing alternative remedies and are doing some testing.

Interest Grows among Christians

Interest among Christians appears to mirror — and sometimes exceed — these general trends. Christian radio stations carry advertisements for herbal remedies and nutritional supplements even more commonly than the secular media. We have serious reservations about most of these “infomercials.” Our God is a God of truth, and claims made in Christian media should be supportable and true. A Christian company should have the courage to insist that its advertisers support the accuracy of their claims. Those who declare that their therapies and remedies can treat or cure conditions should provide the sort of verifiable evidence of effectiveness and lack of harm we discuss throughout the book — we’ll explain why as we go along.

Specific “Christian” alternative therapies are also promoted. One entrepreneur claimed to have figured out the recipe for manna and alleged it would protect people from all forms of illness, just as the original manna protected the Israelites in the wilderness. An-

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other is the “Genesis 1:29 Diet,” based on God’s declaration, “I give you every seed-bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will be yours for food.” Believers in this diet teach that people will be most healthy when eating a biblically based vegetarian diet.

Are there really “Christian therapies”? We frequently hear Christian “success” stories promoted to encourage Christian involvement in alternative medicine. Some Christians claim to have found particular ways to cure or alleviate cancer.⁴ One prominent Christian author wrote about the benefits he experienced from an alternative cancer therapy available only in Europe.⁵

Highly sophisticated medical studies have been conducted on the effectiveness of prayer for healing. Results of research into the impact of spirituality and religious faith on health and healing have been published in mainstream medical journals.⁶ Some Christians now claim the power of prayer is supported by scientific research with “overwhelming, undeniable results”.⁷ Is that really the case and does that make prayer a therapy? Both of us are firm believers in the power of prayer as described in the Bible, but we question whether scientific studies should be used to validate that belief. We will examine this issue in detail in the Prayer for Healing entry.

NIH Begins Evaluation of Alternative Medicine Treatments

In 1992, the National Institutes of Health began an evaluation of alternative medical treatments, establishing the Office of Alternative Medicine (since renamed the National Center for Complementary

and Alternative Medicine, or NCCAM). Funding has increased from \$2 million in 1992 to \$50 million in 1999 and \$123 million in 2005.⁸ Prominent universities and major medical centers have received substantial grants to encourage research in and teaching of alternative medicine. Many medical schools and nursing schools have courses in alternative therapies.

Since the 1990s, a number of new publications devoted to alternative medicine have been launched. The main database for peer-reviewed medical publications (called PubMed) includes twelve such journals, and we are aware of at least four others whose primary audience is physicians and health care professionals. Well-established conventional medical journals (such as the *Journal of the American Medical Association*, *New England Journal of Medicine*, *American Family Physician*, and *Lancet*) regularly publish articles about alternative medicine.

Medical insurance and managed-care companies have started paying for some alternative therapies. Some jurisdictions now require that alternative therapies be included among the therapies covered by insurers. However, some of these trends have started to change. In 1999, basic health insurance in Switzerland was required to cover five complementary therapies, including herbal remedies, homeopathy, and traditional Chinese medicine.⁹ In 2005, the Swiss government reversed its policy, claiming the alternatives did not meet requirements for efficacy or cost-effectiveness.

Alternative Medicine Is Big Business

Despite some problems with and concerns about alternative medicine, Americans are increasingly

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spending more and more money on alternative medicine.¹⁰ Between 1997 and 2002, significant increases in the use of herbal remedies occurred. In 2002, 18.6 percent of Americans were using herbal remedies, *not* including vitamins and dietary supplements not of plant origin.¹¹ Over \$4 billion is now spent annually in the United States on herbal remedies, although sales through mainstream markets dropped 7 percent in 2004.¹² No longer can it be said that alternative medicine is a small fringe market. It is a major business enterprise with all of the advantages and limitations that this brings.

Risks in Alternative Medicine

The risks with alternative medicine are real. Reliance on unproven alternative therapies can have tragic results.

Walt first became involved with Joe's care after Joe was brought to the emergency room in severe pain from a collapsed vertebra. An MRI (a diagnostic imaging test) showed cancer had spread to his brain and bones. Joe, an energetic African-American father of four, told how he had been diagnosed a few years earlier with early-stage prostate cancer and was concerned that the medical options to "cure" the cancer were invasive and fraught with significant cost and risk.

A friend took Joe to their local health food store, where the owner recommended a number of nutritional therapies and dietary supplements "proven to cure cancer" and "not known to most doctors." Joe then saw a local alternative medicine practitioner who, without even examining him, recommended only alternative therapies. The therapist told Joe that

the therapies she recommended were "being kept secret by the government."

Days passed, then weeks, and then a couple of years. Slowly Joe began to develop more symptoms. By the time I saw Joe, a young man in his forties, there would be no cure, no happy ending. I could only try to relieve his pain, his guilt and suffering, and comfort him as his wife and children, the staff, and I helplessly watched his life fade away.

The outcome most likely would have been different with conventional medical therapy. Medical literature is filled with well-documented evidence that early detection of and intervention in prostate cancer frequently results in cure. Joe probably died prematurely because he put his trust and faith in unproven alternative therapies suggested by those not trained in medical diagnosis and treatment. Although he was sincere in his belief about alternative medicine, as were the folks who recommended the unproven therapies, they were all sincerely wrong.

Unfortunately, these types of stories are not uncommon. A researcher for the British Research Council for Complementary Medicine visited twenty-nine health food stores in London asking advice about frequent, severe headaches.¹³ Her fictitious symptoms were chosen so that a trained professional would easily recognize them as suggesting a brain tumor or other serious problem. The researcher was told by health food store employees that her headaches were caused by the flu, low blood sugar, tension, the weather, or using her brain too much. Forty-two different therapies were recommended, with no consistency in the advice given. At fewer than one in four of the stores was the researcher advised to see a physician.

In another study in Hawaii, a researcher visited forty health food stores stating she was gathering information on herbal remedies for her mother, whose

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advanced breast cancer had spread throughout her body (metastasized).¹⁴ In 90 percent of the stores, employees recommended various products to cure cancer, even though making such a claim is against the law. The most popular remedy, recommended at almost half the stores, was shark cartilage. Later in the book we discuss the complete lack of evidence that shark cartilage cures cancer — or anything else. Of great concern is that almost one in five employees counseled *against* using conventional cancer therapies that have been proven to be effective.

Of course, we can point out many stories of how our large conventional medical system has also caused harm to patients. Alternative medicine proponents jump all over these stories and cite an endless parade of pharmaceutical horror stories — such as thalidomide given to pregnant women to treat nausea, resulting in their babies having serious birth defects, including missing or shortened arms or legs. They relate how mass inoculation against the swine flu virus resulted in serious illness, even death. They tell of people who have become overly dependent on the latest tranquilizer or sedative. They note that wonder drugs, such as Vioxx to treat arthritis pain, have been withdrawn from the market after being linked to patients' deaths — in spite of all sorts of controlled studies beforehand. They tell how people die every year from medication mistakes in hospitals and from prescription errors. And they are right. Conventional medicine is not perfect. It is a human enterprise in which practitioners are always learning and sometimes making mistakes — terrible mistakes.

What the proponents of alternative medicine rarely, if ever, reveal to those seeking advice are the failures and mistakes from their past — stories of those who believed false or inaccurate claims and suffered, even died, needlessly.

With this book, we want you to become “as wise as serpents” about the risks and benefits of conventional *and* alternative medicine. We don't want you to continue to merely ask, “What do you recommend?” or “What do you think is best?” We want you to ask the practitioners of conventional or alternative medicine, “What is the evidence that supports what you believe or recommend?” We want you to learn how to wisely gather the accurate and trustworthy information you need for the decisions you must make about your health.

Jonathan Swift, the great eighteenth-century Irish satirist, summed up our concerns beautifully: “Falsehood flies and the truth comes limping after; so that when men come to be undeceived it is too late: the jest is over and the tale has had its effect.”

Proof of Effectiveness Is Missing for Many Alternative Therapies

Most people we talk to are stunned when they learn that most alternative therapies have little or no compelling clinical evidence to support their effectiveness or safety. Evidence that does exist is often ambiguous or based on seriously flawed studies. In some cases the “proof” that a therapy is effective is based on interpretations of controversial theories. For many therapies, the only evidence offered is in the form of anecdotal reports — testimony of users of the therapy.

Perhaps even worse is the way the popular media cover developments in alternative medicine. As soon as a new therapy begins to show some positive results in some people (or even in animals), reports appear promoting it as though it has already been proven to

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work. The fact that the reports are from those with a vested interest in the therapy, or that the positive result could just as likely be a coincidence, is virtually *never* mentioned. Instead, we see the touting of a cancer “cure” or a diabetes breakthrough, based only on preliminary evidence and supposition. And if the “cure” is subsequently disproven, there may be little if any coverage of this fact.

The story of Coenzyme Q₁₀ is a good example of such a media blitz. Coenzyme Q₁₀ was at one time one of the most popular dietary supplements. Physicians and researchers know that Coenzyme Q₁₀ is a critical factor in generating energy in all living organisms. They also know that older people and those with a number of different ailments often have reduced levels of Coenzyme Q₁₀. Therefore, some alternative practitioners reasoned, if a person took Coenzyme Q₁₀ as part of a regimen of daily nutritional supplements, it might slow or stop the aging process and the person would be assured of better health.

Soon several popular books were touting this theory as fact. Coenzyme Q₁₀ became a “must have” nutritional supplement. There was even talk that it could combat or reduce the severity of AIDS, slow or reverse aging, and give people longer, better lives.

Then long-term, carefully controlled studies began to be conducted. Coenzyme Q₁₀ is indeed showing some preliminary evidence of having potential in treating some illnesses. But it is not an antiaging pill or an HIV treatment. It’s true that Coenzyme Q₁₀ is critical for energy and that its level is reduced in certain people. But the supplement is nothing like the “fountain of youth” it was originally advertised to be. Because of the premature claims, countless consumers may have wasted millions of dollars on Coenzyme Q₁₀.

Alternative Therapies Lack Adequate Regulation

Most European countries strictly regulate the manufacture and sale of herbal and other botanical products. In Germany, the Federal Health Agency set up what became known as Commission E to evaluate the safety, efficacy, and quality of herbal products. Although the Federal Health Agency does not test herbal products, manufacturers are required to submit proof of a product’s quality, safety, and effectiveness. Each product’s license must be renewed every five years.

Once established, Commission E functioned independently of the Federal Health Agency. From 1978 to 1994, Commission E reviewed all available literature on the safety and efficacy of 360 herbal remedies. These technical reports were published and are now available in English.¹⁵ In countries with such regulations, consumers are assured of the consistency and safety of what they purchase — and they have some confidence that the claims made about a substance are accurate.

Unfortunately, this is not true in the United States, as there are no such standards or regulations. Consumers not only have no guarantee of the safety or efficacy of what they purchase; in many cases they can’t even be sure that the amount of the herb or other active ingredient indicated on the label is actually there. We’ll discuss these issues in more detail in Parts 2 and 3, but studies have shown the following:

- **missing ingredients** where what was listed on the label was not in the container.¹⁶
- **contaminants** in some products, including dangerous chemicals or pharmaceuticals not listed on the label.¹⁷

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- **differences** in the contents of the same product from different manufacturers (or even from the same manufacturer).¹⁸
- **prescription medications** found in “natural” remedies and supplements without being listed on the label.¹⁹
- **unacceptable variation** in the amounts of active ingredients in different batches of the same product.²⁰

For example, the *Los Angeles Times* commissioned a study to examine St. John’s wort, an herb known to be effective against some forms of mild to moderate general depression.²¹ *Times* reporters purchased the ten most popular brands from several retail outlets and had the pills tested by an independent laboratory.

The results were startling. Only one had between 90 and 110 percent of what the label indicated (an acceptable standard for over-the-counter products, based on the German standards). One manufacturer’s pills had only 20 percent of the amount of active ingredient claimed on the label. Two others had a third *more* than the labels claimed.

Such problems exist in the United States in large part because of the way dietary supplements are regulated. Prescription and over-the-counter drugs are heavily regulated and closely monitored. For this reason, when you pick up a prescription at the pharmacy, you can be confident you have a high-quality product in your hands. Manufacturers are required to show that these products are effective and safe and made to the highest standards before they are allowed on the market.

Not so with dietary supplements. The Food and Drug Administration (FDA) oversees the regulation of drugs, food, and dietary supplements. In the early 1990s, the FDA was concerned about the way dietary supplements were being regulated and sought

to tighten its control over these products and their labeling. However, manufacturers and consumers lobbied against the new regulations in Congress. The result was passage of the Dietary Supplement Health and Education Act of 1994 (DSHEA). This legislation expanded the list of items regulated as dietary supplements and limited the FDA’s role in their regulation.

Under DSHEA, the term “dietary supplement” includes dietary substances added to supplement the diet as well as vitamins, minerals, herbs, and extracts of any such ingredients. Manufacturers are not required to submit evidence of effectiveness or safety prior to marketing a dietary supplement. The burden is on the FDA to prove that a dietary supplement is unsafe before it can be taken off the market. Hence, in spite of the many reports of adverse effects from ephedra, it took from 1997 to 2004 for the FDA to succeed in banning ephedra products.²² (By contrast, the manufacturer of a new pharmaceutical drug must prove the drug is safe and effective *before* the company is allowed to put it on the market.)

Controversy reigns over precisely what claims can be made for a dietary supplement. General health claims — “maintains a healthy heart,” “helps relaxation” — are allowed. Claims cannot be made that a product prevents or treats a disease. The DSHEA also requires all statements about health claims on dietary supplements to prominently display the words, “This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.”²³

The warning appears to have had little effect. Consumers continue to buy these products, believing manufacturer claims and ignoring the DSHEA warning. The warning actually gives the makers of these products an easy “out” — deniability.

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Alternative Medicine and Ancient or Traditional Cultures

The ancient or traditional cultures with which many alternative therapies are associated have been viewed through romantic lenses, their lifestyles seen as healthier than modern, fast-paced ones. The medicines, especially the herbs, used for centuries in these cultures would, it is claimed, never have gained acceptance if they were not effective. Thus, the therapies are declared by the proponents of alternative medicine to be valid. Some champions of a product will claim that their therapies were suppressed for years by Western imperialism and Christian missionary crusades. Only now, they say, are they being rediscovered and made available in the West.

Some of the more vigorous supporters of alternative medicine blame many of the concerns about alternative medicine on Western culture. They claim that research on these therapies is lacking because of biases in the Western medical and pharmaceutical establishments. Claims are made that the pharmaceutical industry will not research herbal remedies because it cannot patent the products and hence cannot make much money from them. Conventional medicine, they claim, is concerned only with retaining power and market share.

Partisans of alternative medicine advocate giving individuals the freedom to choose whatever form of health care they want. The argument is made that people's responsibility to care for their own health should be acknowledged and promoted by giving the individual greater freedom in matters of health care. They view those seeking to regulate alternative medicine, such as the FDA and the Institute of Medicine (IOM), with suspicion.

Spiritual Therapies and Christians

The link with other cultures raises another concern, especially for Christians and others who take their religious or spiritual faith seriously. Some alternative therapies are based on practices and rituals that have long been part of pagan or spiritual traditions and other religious practices.

Spirituality is an important concept in many forms of alternative medicine. Practitioners can be devout Christians or they can believe in worldviews that are radically different from a biblically based worldview. Sometimes the same terms are used, but with meanings that are quite different. For example, prayer may be recommended by various therapists, but they may have completely different practices in mind. A valid concern is that some forms of alternative medicine may be vehicles for the promotion of religious perspectives that are opposed to Christianity. A few may actually involve occult practices.

Some alternative medicine practitioners believe they cannot help their patients without first introducing them to one or another of the ancient Eastern or New Age faith systems. This leads to potential conflict for Christians. They may hear anecdotal stories from friends about shamanism easing arthritis pain without drugs, Therapeutic Touch increasing the speed of healing after a severe burn, or Reiki easing a chronic health condition. The stories are positive. Nothing is said about the potential spiritual side of the treatments. And are these therapies safe?

For example, Therapeutic Touch seems, on the surface, to be related to the biblical laying on of hands — even though hands never actually touch the patient. Practitioners claim to have removed any religious connotations from the practice. How-

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ever, the nurse who helped develop the practice is a Buddhist and has stated that the principles behind Therapeutic Touch are the three main principles of Buddhist teachings.²⁴ An almost identical practice based on healing energy, called “pranic healing,” is found within occult traditions.

Even Christians disagree on such therapies. Some say these therapies go against biblical teaching. They warn that some may lead to involvement in the occult. But others teach that ultimately all healing comes from God. They emphasize that Jesus is called the “Great Physician.” They point out that in his day, Jesus would have been considered an alternative healer. Both perspectives can’t be right, can they?

A few points can be made here. One of the central tenets believed by many in the New Age movement is that all spirituality is good, that no form is any better than another.²⁵ This is in opposition to the Bible’s message that many problems originate, either directly or indirectly, in the conflict between the spiritual forces of good and evil. Paul wrote in Ephesians 6:12, “Our struggle is not against flesh and blood, but against the rulers, against the authorities, against the powers of this dark world and against the spiritual forces of evil in the heavenly realms.” (We will address these issues more fully in chapter 3.)

The “openness” advocated by many in the alternative medicine community could expose people to practices and spiritual beings whose primary purpose is to harm people and lead them away from the loving Father of the universe. Although some question the existence of evil spiritual forces, Jesus speaks repeatedly about them, and the Bible warns that “your enemy the devil prowls around like a roaring lion looking for someone to devour” (1 Peter 5:8). Before trying any therapy, carefully evaluate the background and methods used.

Categories of Therapies

We have raised a variety of issues that should be explored prior to trying alternative medicine. Each alternative therapy or remedy will not raise every issue. To help focus your attention on the type of issue to be resolved, we have developed six categories. In Parts 2 and 3, we use these categories in our evaluation of each alternative therapy or remedy. The system is not absolute, and some therapies and remedies will fit into several categories.

1. Conventional Therapies

Conventional therapies and remedies are those we associate most closely with medical physicians, hospitals, and the modern Western health care system. Conventional medicine focuses on the use of pharmaceuticals, surgery, technology, and physical devices to prevent, diagnose, treat, and cure disease. These are the therapies either practiced routinely by Western-trained physicians or taught in nearly all medical schools. Alternative medicine therapies and remedies move into this category when high-quality research accumulates to show evidence of benefit and safety, and when a growing number of conventional health care professionals recommend the therapy.

2. Complementary Therapies

Complementary therapies and remedies are those either not practiced routinely by Western-trained physicians or not taught (or incompletely taught) in most medical schools. The therapies are not primarily designed to cure illness but focus instead on promoting health and preventing illness. Many seek to bring comfort or relieve stress. Some of the

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more popular complementary therapies include nutrition, exercise, stress reduction, marriage and parenting classes, support groups, massage, prayer, and spirituality. Many people would say that some of these — things such as prayer or marital advice — are not therapies at all. Common sense and mounting evidence from studies show that these factors are important for healthy lifestyles and the prevention of illness. However, these factors are often included in discussions about alternative medicine, and therefore we include them in this category. Any therapy with spiritual connections we will include in our fifth category.

3. Scientifically Unproven Therapies

Scientifically unproven therapies have not gone through even the most basic testing required for scientific demonstration of effectiveness and safety. Yet these therapies need not be rejected outright if they are based on established scientific principles. An old adage that is often brought up is that “absence of evidence of an effect is not evidence of the absence of an effect.”²⁶ While that is true, this adage actually arose in reference to adverse effects. Sometimes evidence of harm appears slowly only after many people have used the product. Many herbal remedies fall into this category.

Remedies and therapies in this category generally cannot be recommended because of the lack of evidence. But sometimes it may be appropriate to try a therapy that shows some evidence of effectiveness if there is no evidence of it causing harm and its cost is reasonable. Approach all therapies that are scientifically unproven with caution.

4. Scientifically Questionable Therapies

Scientifically questionable therapies and remedies are based on theories or principles that contradict

widely held scientific beliefs and have little or no scientific evidence to back up their claims. This category includes therapies that have been proven ineffective or even harmful.

For example, we categorize homeopathy as not only unproven but scientifically questionable because of the theory on which it is based. Homeopathic remedies are made by repeatedly diluting and shaking various herbal and mineral ingredients. Homeopathic dilutions are continued, in some cases, to the point where every molecule of the original “active” ingredient has been diluted out of the solution. None of the starting material is left in the final solution, and yet homeopaths claim these have the strongest effects. This contradicts the scientific finding that the more dilute a drug’s concentration, the weaker its effect on the body.

We are skeptical of scientifically questionable therapies and do not recommend them. However, we recognize that a therapy may have some usefulness via some unknown mechanism and we would examine carefully any good-quality evidence that shows such a therapy is effective *and* safe. Only then, based on that evidence, would we consider recommending using any scientifically questionable therapy.

5. Spiritual Therapies

Spiritual therapies take us into an area of alternative medicine that is highly problematic for Christians and believers of other faiths. And yet most alternative medicine books do not discuss this important aspect. For example, “energy medicine” is a general term for a collection of diverse practices based on what is called “life energy.” This life energy is non-physical and universal. True health, these practitioners say, results from a balanced flow of this energy through the body and unblocked exchange of this energy with one’s environment.

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Our focus here is less on the accuracy of these beliefs (which we examine in Part 2) than on the fact that they have deep spiritual and religious roots and that this is often not acknowledged by those who promote therapies based on these beliefs. These beliefs underlie a vast array of alternative therapies, including Therapeutic Touch, Reiki, reflexology, Deepak Chopra's Ayurvedic medicine, Larry Dossey's healing words, and many others.

Such therapies raise important faith issues and require theological evaluation even more than scientific analysis. That is why we assign them to their own category. Where they best belong is sometimes not clear, as certain therapies can be practiced in very different ways. For example, controlled breathing exercises can be part of a spiritual therapy such as yoga or have no spiritual connections (as with the Lamaze approach to childbirth). The important thing is to be aware of the context and know how to evaluate therapies spiritually. Christians are called to test all spirits and thereby all spiritual teaching and claims. The standard is clearly described in 1 John 4:1 – 3:

Dear friends, do not believe every spirit, but test the spirits to see whether they are from God, because many false prophets have gone out into the world. This is how you can recognize the Spirit of God: Every spirit that acknowledges that Jesus Christ has come in the flesh is from God, but every spirit that does not acknowledge Jesus is not from God. This is the spirit of the antichrist, which you have heard is coming and even now is already in the world.

6. Quackery or Fraud

False claims, unproven products, and products known to be ineffective or harmful rob people of money, trust, and frequently their health. The sad truth is that some individuals will intentionally de-

ceive others about a product's efficacy just to make money. That's fraud.

Almost as bad are the therapies touted by people who truly believe they are of value even though they are not. That's quackery.

In chapter 5 we will give you examples of both quackery and fraud. We also describe some warning signs you should be aware of to protect yourself from these problems.

What to Do When Considering Alternative Medicine

Many people, including physicians, are left confused and frustrated about alternative medicine. People with health-related questions don't want theological or political debates; they want relief. They don't want conflicting information; they want trustworthy guidance. They want to know the right thing to do. Christians also want to please God in their actions, base their beliefs on his Word, the Bible, and reflect his character in their decisions and actions.

When considering a treatment, we should know why we are using whatever therapies or remedies we use — or don't use. We need to know that a particular remedy is not only effective but reasonably safe. To be good stewards of our resources, we should be able to know if the label on the bottle is accurate and reliable. Others' experiences and recommendations can be an important part of any evaluation, but they are not enough.

We must also evaluate remedies from an investment, or stewardship, perspective. We are all limited in the amount of time and money available to us. We should not squander our resources. Christians

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especially are called to be accountable stewards of these resources. Jesus asked, “So if you have not been trustworthy in handling worldly wealth, who will trust you with true riches? And if you have not been trustworthy with someone else’s property, who will give you property of your own?” (Luke 16:11).

We should all investigate the claims made about the remedies we put into or onto our bodies, the therapies we allow to be practiced on us, and the practitioners in whom we place our trust. “Do you not know that your body is a temple of the Holy Spirit, who is in you, whom you have received from God? You are not your own; you were bought at a price. Therefore honor God with your body” (1 Corinthians 6:19–20). To do this, we need to gather information that is medically reliable *and* biblically sound, weigh the options, seek sensible counsel, carefully pray, and then make as informed and as wise a decision as possible.

We cannot emphasize strongly enough that this investigation should be done whether we are pursu-

ing conventional *or* alternative medicine. Yet with both forms of medical care, we see people trusting blindly in someone or something for no reason other than the chance happenings that led them to a certain practitioner.

This book is designed to help you make reliable decisions. The next two chapters provide you with some of the most important tools and principles you need to do this. First we will look at how medical science evaluates whether something is effective or safe (the evidence-based approach). Then we will look at how the Bible evaluates the spiritual dimensions (the faith-based approach). We apply those principles to specific therapies and remedies in the rest of the book. We’ll give you the facts — fairly, evenhandedly, and as objectively as we can.

We are on your side. Our goal is to help you make wise decisions. Not only will our advice and recommendations be evidence-based and medically reliable; they will also be biblically sound.

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ACUPRESSURE

• What It Is

Acupressure involves applying pressure to specific points (acupoints) on the body using fingers, hands, elbows, or knees. Pressure can be applied by therapists or patients themselves, or by elasticized bands that press a stud onto the person's skin. Acupressure developed within traditional Chinese medicine (TCM). (See the Traditional Chinese Medicine entry to understand how acupressure is believed to work.) Central to its development is the notion of *chi* (pronounced CHEE), a nonphysical life energy central to good health in TCM. When its flow has been interrupted, pressure on the appropriate "acupoints" is believed to relieve energy blockages. An acupoint is the precise location on the skin on which pressure (or a needle) is believed to bring about a biological effect. There are some two thousand acupoints said to be interconnected. Acupressure (and acupuncture) practitioners work with acupoints to balance energy flow and restore health.

Acupressure led to the development of a Japanese form of massage called Shiatsu (which literally means "finger pressure"). Unlike typical massage, shiatsu massage is carried out to balance the flow of *chi* by applying pressure at various acupoints using practitioners' fingers, thumbs, elbows, knees, or feet.

• Claims

Acupressure is most commonly believed to reduce nausea and vomiting when pressure is applied to an

acupoint called P6 or Inner Gate, located between the tendons on the forearm, three fingers' width from the first wrist crease. Some companies market a do-it-yourself acupressure device with small metal or wooden balls positioned on a strap in such a way that when the device is strapped around the wrist, a ball will press on P6. These are sold in stores catering to boaters, air travelers, and others who suffer from motion sickness. They are also being investigated to prevent nausea and vomiting caused by chemotherapy or anesthesia.

Another acupoint between the thumb and index finger (called Meeting of the Valleys) is believed to help digestion. Acupressure is also believed to relieve pain, particularly headaches, back pain, and migraines.

Some claim acupressure can treat and cure just about every illness and disease. An advertisement by a "Dr. J. V. Cerney" for a book called *Acupuncture Without Needles* claims acupressure "can rub away pain . . . gently massage away chronic illness . . . restore vigor and youthfulness." Once you buy the book, you can unlock "the mystery of your body's 'magic buttons' for safe, fast relief of almost any pain or ailment." The ad contains several pages of testimonials from satisfied customers relieved of everything from migraines to asthma to impotence. People are identified only by their first names, making it impossible to check whether they even exist. The ad ends with a list of more than eighty ailments acupressure is claimed to instantly relieve. An ad for another book on acupressure claimed it could reverse the aging process.



• Study Findings

Research on acupressure has focused primarily on the relief of headaches, nausea, and vomiting. A 2004 Cochrane systematic review found several studies using P6 acupressure to prevent postoperative nausea and vomiting. Overall, acupressure was effective, and in some of the studies it was found to be as effective as conventional pharmaceuticals (✓✓✓✓). Several studies used wristbands to apply pressure to the P6 acupoint to relieve morning sickness. However, one systematic review of these studies found that, overall, the evidence was unclear when the size and quality of these studies were taken into account (✓✓). In addition, research on the most severe form of morning sickness, hyperemesis gravidarum, has found no evidence of benefit from acupressure (×××).

Studies (✓✓) using acupressure for headaches had mixed results. Based on the results of case studies, acupressure for smoking cessation was found to be better than just advice. Overall, though, there is no clear evidence (✓✓) that acupressure is effective for smoking cessation.

Objective studies have not demonstrated the existence of the acupoint and meridian system. Though there are charts mapping this invisible system, they are only guides. Traditional Chinese medicine teaches that acupoints vary from person to person. Western scientists question the validity of the entire concept.

Conventional medicine recognizes that acupressure works for some people some of the time, especially for preventing nausea and vomiting and to some extent for relieving headaches. The question is whether acupressure is sometimes effective because it relieves energy blockage (as traditional Chinese medicine teaches), because of some poorly

understood but scientifically verifiable mechanism, or because of the placebo effect.

• Cautions

Although most treatments are gentle and acupressure is without serious side effects, some types of acupressure are applied with enough pressure to cause minor aches and pains that continue for hours after the procedure has been completed. More care is needed with some forms of Shiatsu massage, especially when practitioners use their elbows or feet.

Of greater concern is the belief system that can accompany these therapies. Belief in the concept of life energy and its manipulation is fundamental to Eastern religions. Certain acupressure teachers expose practitioners to these ideas and may want to convert patients to their beliefs. Some practitioners call on spiritual powers to assist in diagnosis and treatment, exposing patients to occult concepts and powers. People receiving Shiatsu massage sometimes report getting cold or flu symptoms. These are viewed by practitioners as evidence of a “healing crisis,” believed to be caused as *chi* is unblocked. This appears highly speculative and should raise concerns about possible spiritual implications. For these reasons, Christians must use careful discernment when choosing a practitioner for any of these therapies with Eastern roots.

• Recommendations

Readily available acupressure wristbands have had positive results in several trials for preventing nausea and vomiting. Patients who do acupressure on themselves may also be able to get some relief from certain forms of headaches. Such self-administered

ALTERNATIVE THERAPIES

acupressure also avoids exposure to the Eastern religious beliefs underlying *chi*.

Therapists can give acupressure treatments that last as long as an hour and continue over several weeks. This affords ample opportunity to expose clients to the religious ideas underlying *chi* therapies. Research has not revealed much additional benefit when acupressure is carried out by therapists. Great care should be taken to ensure therapists do not call on inappropriate spiritual forces during treatment. Or choose a conventional therapist — a physical therapist or physician — who could teach you to perform acupressure on yourself.

• Treatment Categories

Complementary

- To treat nausea and vomiting ☺☺☺☺
- To relieve headaches ☺☺
- To treat morning sickness ☺
- To help with smoking cessation ☹☹

Scientifically Unproven

For any other indication

Spiritual

In the hands of some practitioners



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CAPSAICIN

• What It Is

Capsaicin is the active ingredient in cayenne or chili peppers, also known as capsicum and hot pepper extract. Hot peppers have been cultivated for centuries, resulting in many varieties of the most common species, *Capsicum frutescens* and *Capsicum annum*.

• Claims

Hot peppers are used primarily as a spice in cooking but also have a long tradition of medicinal use. Capsaicin is used both orally and topically. Orally it has been used for gastrointestinal problems (to stimulate digestion and for gas, colic, diarrhea, and cramps) and for circulation, high cholesterol, seasickness, fever, atherosclerosis, and heart disease. Topically it is used to relieve the pain of osteoarthritis, rheumatoid arthritis, and neuralgia (a sharp or burning pain that originates in nerves).

Capsaicin (like mustard plasters) was known as a “counterirritant,” a substance placed on a painful area to cause further irritation, which somehow relieves the original pain. Others claim that capsaicin taken orally can reduce blood cholesterol and decrease the tendency of the blood to clot.

• Study Findings

The counterirritant effects of capsaicin have been extensively researched (✓✓✓✓), leading to FDA approval of capsaicin as an external (topical) analgesic for pain from rheumatoid arthritis, osteoarthritis,

psoriasis, and neuralgias, including shingles and diabetic neuropathy. However, studies showed it is not effective for all people. It cut in half musculoskeletal pain for about one in every eight patients treated with 0.025 percent capsaicin. For neuropathic pain, 0.075 percent capsaicin was effective after eight weeks in about one in every six patients.

Capsaicin is available in a number of over-the-counter creams and works well when used appropriately. It appears to work by causing depletion of Substance P, which is how peripheral nerves transmit painful stimuli back to the spinal cord. Capsaicin therefore prevents the brain from perceiving the pain. However, it takes a few days to use up the Substance P already in the painful area. Capsaicin is therefore most effective when used repeatedly for chronic pain such as with arthritis and neuropathy. It should be applied three to four times daily for at least four weeks.

Evidence to support the internal use of capsaicin is insubstantial, with the possible exception (✓✓) of its use as a digestive stimulant. Epidemiological evidence (✓✓) suggests that those who eat more chili peppers have fewer peptic ulcers. Preliminary evidence (✕✕) suggests that capsaicin does not relieve irritable bowel syndrome.

• Cautions

Ironically, if all the Substance P in an area is not depleted, the intensity of the pain may increase. It is therefore very important that enough capsaicin cream be used. This can be a problem when people make their own creams, as the amount of capsaicin

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varies extensively among varieties of peppers. Capsaicin is extremely irritating to eyes, open wounds, and mucous membranes. After applying the cream to the skin, residual capsaicin is practically insoluble in cold water and only slightly soluble in hot water. It can be removed from the hands using vinegar. The cream may be helpful for shingles or psoriasis, but the skin should be monitored carefully for signs of excessive irritation.

• Recommendations

Capsaicin is an effective analgesic for certain types of arthritis and chronic pain of the arms or legs. It has few side effects so long as it is kept away from the eyes and open wounds. Capsaicin may be unsafe when taken orally in amounts larger than in food, especially for children and women who are pregnant or breast-feeding. As those who have eaten hot peppers know, there is great variability in people's taste for peppers. These differences apply to skin tolerance as well as to taste buds.

• Dosage

Capsaicin is very potent, so topical preparations often contain between 0.025 and 0.075 percent capsaicin, which should be applied no more than three or four times a day.

• Treatment Categories

Conventional

- Topically to relieve chronic musculoskeletal pain ☺☺☺☺
- Topically to relieve chronic peripheral nerve pain (neuropathy) from shingles or diabetes ☺☺☺☺
- Topically to relieve chronic peripheral nerve pain (neuropathy) from HIV/AIDS ☹
- Topically to treat some forms of arthritis ☺☺☺

Complementary

- Orally to stimulate the digestive system ☺☺
- Orally to treat dyspepsia or peptic ulcers ☺
- Orally to treat irritable bowel syndrome ☹

Scientifically Unproven

- For any other indication

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EFFECTIVENESS OF THERAPIES

LISTED BY DISEASE OR SYMPTOM

This index shows the authors' rating for the effectiveness of each therapy, herb, vitamin, and supplement, listed alphabetically by disease, condition, or symptom. For more information on any of the author-rated therapies, see the listing for that therapy. Therapies or remedies for which insufficient evidence exists for a reliable recommendation are not included in this section. Before acting on these recommendations, please read the complete entry. The index is intended to guide you to the evidence discussed in each entry.

Since the evidence for any particular therapy can not only support its benefits but also show its potential for harm, we have compiled a single guide that we hope will be useful. The rating is our "best estimate" of the benefit or harm for any particular indication. Others could (and often do) look at the same evidence and derive different conclusions.

Overall Recommendation	Criteria
☺☺☺☺	75% – 100% confidence that the therapy is potentially beneficial
☺☺☺	50% – 74% confidence that the therapy is potentially beneficial
☺☺	25% – 49% confidence that the therapy is potentially beneficial
☺	0% – 24% confidence that the therapy is potentially beneficial
☹	0% – 24% confidence that the therapy is of no benefit or potentially harmful
☹☹	25% – 49% confidence that the therapy is of no benefit or potentially harmful
☹☹☹	50% – 74% confidence that the therapy is of no benefit or potentially harmful
☹☹☹☹	75% – 100% confidence that the therapy is of no benefit or potentially harmful

EFFECTIVENESS OF THERAPIES: LISTED BY DISEASE OR SYMPTOM

Abrasions

☹☹ comfrey

Acid Reflux

☹☹ licorice

Acne

☹☹☹☹ aloe
☺☺ tea tree oil

Addictions

☹☹☹☹ acupuncture

ADHD

☹ omega fatty acids
☹☹ vitamin C

Adrenal Insufficiency

☺☺☺ DHEA

AIDS

☹ St. John's wort
☹ selenium

Alertness. Mental

☺☺☺ green tea

Allergies

☺☺☺☺ bee products

Alzheimer's Disease

☺ DHEA
☺☺☺ ginkgo biloba
☹☹☹ vitamin C
☹☹ vitamin E

Amyotrophic Lateral Sclerosis (ALS)

☹☹☹ antioxidants
☹☹ creatine

Angina

☹☹☹☹ chelation therapy
☺ Coenzyme Q₁₀

Anti-Aging

☹☹☹ Coenzyme Q₁₀
☺☺ DHEA

Antioxidant Source

☺☺☺ grape seed extract
☺☺☺ green tea
☺☺☺☺ lutein
☺☺☺☺ mangosteen
☺☺☺☺ selenium
☺☺☺☺ vitamin C

Anxiety

☺☺☺ aromatherapy
☺☺☺☺ biofeedback
☺☺☺ breathing techniques
☺☺☺ kava
☺☺☺☺ meditation
☺☺☺ reflexology
☺☺ St. John's wort
☺☺ tai chi
☺ valerian

Arthritis

☺☺☺ capsaicin
☺☺☺☺ chondroitin sulfate
☹☹☹ creatine
☹☹☹ feverfew
☺ ginger
☺☺☺☺ glucosamine
☺ MSM
☺☺ SAM-e
☹ selenium
☹☹☹ shark cartilage
☹☹ vitamin E
☹ willow bark

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