Part One: The Background

Preface

The Encyclopedia of Medical Breakthroughs and Forbidden Treatments contains a wealth of information on a wide diversity of topics—much of which will be new to many readers. By bringing this new information to your attention, we point the way so that you will be able to continue your exploration and experimentation on your own, or with the assistance of your physician or other medical professional(s). Due to length limitations, however, the subjects covered in this book by no means exhaust the full knowledge and understanding of the topics discussed, nor is it suggested they are fully inclusive of all medical information that may be relevant.

To a considerable extent, but not exclusively, our approach to healing and the medical arts involves holistic/alternative/integrative, more natural approaches rather than the application of traditional Western medicine (allopathy) which relies heavily on surgical procedures and the use of pharmaceutical drugs. This more natural field of medicine is referred to as the field of Complementary & Alternative Medicine (CAM).

In many other cultures, the core understandings of medicine and healing center around the use of treatment techniques that are less invasive and accompanied by far fewer adverse reactions (side-effects) in comparison to many of the Western methods. The same or better results are usually achieved with CAM, but without the consequences that may accompany the practice of often unnecessary surgery and the use of side-effect-producing pharmaceutical drugs. We believe this approach represents the medicine of the future, as it was to a considerable extent in the past—before big money and big business became involved in the healing arts.

For example, traditional Chinese medicine (TCM) is an art dating back thousands of years into antiquity. TCM relies heavily on the use of herbs and herbal formulations, diet, exercise, and massage. It also incorporates the use of acupuncture, a medical technique relatively recently introduced to Western medicine—and scoffed at for years by traditional Western physicians. Ayurveda, another complementary treatment modality, is the ancient Hindu system of healing dating to the first century A.D., and centers around the use of herbs, oils, purgatives, and other natural forms of healing. Scores of additional non-invasive, side-effect-free "alternative" treatment modalities are also readily available.

Even in the U.S. prior to 1900, the American physicians' mainstay treatment was homeopathy—practiced by America's best and brightest physicians—a very effective form of medicine against which massive publicity was directed in order to discredit its effectiveness. These campaigns to discredit were launched just prior to the formation of the American Medical Association, which functioned then and still functions to this day in support of large financial conglomerates with the specific intention of promoting pharmaceutical drugs and expensive medical procedures including surgery. Most Americans are unfamiliar with the origins of contemporary Western medicine and the facts behind the formation of organizations such as the English Society of Apothecaries, the British Medical Association and the American Medical Association. Nevertheless, for those who care to

explore these matters at greater length, these organizations have a well-documented, deep and sordid history including clandestine and less-than-admirable intentions, as you will see.

It is neither our desire nor intention to belabor the issues surrounding the questionable policies and practices of the current Western medical establishment—some of the results of which bring much suffering and hardship into the lives of many. On the other hand, in addition to informing our readers of tried-and-true "complementary" techniques of healing—the main focus of this writing—we feel obligated at least to touch on some of the main highlights of what, in our opinion, are questionable medical treatment modalities which are currently offered to the public, the harmful effects of which have been thoroughly documented for all who care to spend the time and energy in pursuit of the details. Without informing you about what you or your loved ones currently might be doing that is medically detrimental to your health—or what you unknowingly might do in the future as the result of your lack of knowledge and understanding concerning the various medical choices available to you—we would be obscuring a significant part of the story as well as denying our responsibility to you by not waiving a red flag of caution.

At the same time we must be careful not to paint the story with such a broad brush as to indict all of Western medicine, and the thousands upon thousands of innocent, well-meaning people employed within the health and medical community. Many to most of those so employed are largely unaware of the width and breadth of the entire story, and the harm that is brought to the population at large as the result of the misguided policies and practices of a few. It is the Directors and those who guide the course and set the policies of both the companies that provide medical care and related products and services, as well as the institutions that continue to allow them to function unimpeded, who deserve the blame.

Also sharing the responsibility are all those who may have come to a personal understanding of the reality of these unfortunate situations and circumstances and have done nothing to correct them, be they employees in the medical profession, physicians, news reporters, researchers such as the writers of the present document, or the like. Many pressures come to bear which may subtly and not-so-subtly prevent people from speaking out and acting in line with their consciences. Fear is a strong motivating factor which helps maintain the silence. Fear of losing one's job is so strong it can be overcome only by the most courageous. For most, going with the flow is the most comfortable path of least resistance. We go along to get along. "In a time of universal deceit," spoke George Orwell, "telling the truth is a revolutionary act."

The story is simple if not alarming. In search of gigantic profits the large pharmaceutical companies have lost their hearts in favor of financial profit margins. If they ever were, they are no longer in touch with the real needs of real people. These companies, in cooperation with government bureaucracies, allow many prescription pharmaceutical drugs to remain on the market even though both the manufacturers of the drugs and the government agencies know very well that some of these drugs are the direct cause of thousands of deaths annually.

Physicians currently write Americans over three billion annual prescriptions for drugs.[1] This is prescription writing at the rate of one each month for every living human being residing in the United States. With Americans spending over $200 billion per year on prescription pharmaceutical drugs, we can see there's a very powerful impetus on the part of the pharmaceutical companies to maintain this foothold in the bleeding pocketbooks of Americans, as well as the rest of the world.

Unfortunately, it's not only our pocketbooks that are bleeding. In the May 2002 issue of the *Journal of the American Medical Association*, Dr. Karen Lasser and colleagues from Harvard Medical School reported their analysis of 548 drugs approved from 1975 through 1999. Fifty-six of these drugs—slightly more than 10%—were later given serious side-effects warnings, or removed altogether from the market for safety reasons. When the researchers focused on the drugs that were approved toward the end of the study, the number grew to 20%.[2]

Dr. Lasser and her fellow researchers concluded that most of the troublesome new drugs don't represent any advance in treatment capability and are at best no better than the older, safer drugs al-

ready on the market.[3] If this is indeed the case, what would motivate the pharmaceutical companies to develop these new, potentially unsafe and life-threatening drugs when they already had developed better, safer products? The answer, we believe, is as crystal clear as the "ka-ching" coming from the cash register. Prescription drugs have a 20-year patent lifetime. After that, other companies are permitted to sell these previously patent-protected drugs. In order to maintain a monopoly in the marketplace, new patentable drugs must be created. An example of this is the recent switch from the USD $6 billion per year purple progenitor Prilosec®—whose patent had run its course—to its newly-patented purple replacement, Nexium.® Prilosec is now doing double duty in its second incarnation as an over-the-counter product.

The general idea behind most pharmaceutical drugs has been the discovery of *un*patentable, natural plant substances which are effective in treating specific ailments, and then to slightly alter the molecular structure of these substances so that patent protection can be obtained. By so doing, invariably the new, "molecularly-modified/me too" substances are fraught with side-effects ranging from bothersome to life threatening to lethal. In our opinion, this simply is not an acceptable approach to pharmacy and medicine. There are exceptions, of course, the opiate pain medications and properly-administered antibiotics being two specific areas that generally benefit humanity. Even with the potentially life-saving antibiotics, however, we have witnessed the creation of antibiotic-resistant superbugs that have come back to haunt us. Only the future will reveal the ultimate result of this pharmaceutical approach to infectious diseases.

As reported in the July 2000 issue of the *Journal of the American Medical Association*,[4] Dr. Barbara Starfield of the Johns Hopkins School of Hygiene and Public Health confirmed that every year in the United States more than 100,000 hospital deaths occur as the result of adverse reactions to prescription pharmaceutical drugs that are prescribed by physicians in accordance with the directions given by the pharmaceutical companies who manufacture them. These deaths are called Drug Adverse Events. (If hospitals were war zones, they would be termed "collateral damage.") They do not include data from other medical settings such as doctors' offices or outpatient deaths. Additionally, these numbers are only for deaths and do not reflect negative effects associated with non-lethal adverse reactions but are nevertheless associated with disability and/or pain and discomfort.

In addition to the 100,000 annual deaths caused by correctly-prescribed pharmaceutical drugs, an additional 125,000 deaths occur in the U.S. each year as the result of incorrectly-prescribed prescription drugs. To put this into perspective, this number is equivalent to a World Trade Center disaster every week for a year-and-a-half.

In Europe, Drug Adverse Events are kept secret by the national governments. In October 2008, however, a team of Danish and Dutch journalists used freedom of information legislation in Denmark and Holland to obtain secret pharmaceutical company documents revealing that pharmaceutical drugs are the fifth most common cause of death in European hospitals.[5]

It has been recognized that the majority of injuries and deaths caused by prescription drugs go unreported or under reported. When drug-related statistics are published, it is often stated that the numbers quoted are gross underestimates compared to what is likely to be the true incidence.

The late Milton Silverman, M.D., Professor of Pharmacology at the University of California and author of several books including *Pills, Profits, and Politics*, reported as long ago as 1974 that his studies indicated millions of hospital admissions each year are the result of adverse reactions to pharmaceutical drugs. Further, depending on how long they stay, the average patient has up to a 30% chance of doubling the hospital stay due to an additional adverse drug reaction.

The following example gives an indication of how blatant and deep-seated the pharmaceutical problem is. In 1999 in a Federal Court in Dallas, Texas, Attorney General Janet Reno of the U.S. Department of Justice prosecuted the world's two largest vitamin (pharmaceutical) manufacturers for conspiring to fix the world-wide prices of vitamins. Every year for a decade, top executives of the world's largest pharmaceutical companies would meet clandestinely in various posh settings to establish production quotas, prices and distribution channels for vitamin ingredients used in a diversity of ways—from ingredients used to enrich foods

(bread, butter, cereals, meats, milk, orange juice, etc.) to vitamin pills. The global markets of various vitamins such as A, B_2, B_5, C, E and beta carotene would be divided among the companies to the level of one half of one percent.[6]

Hoffman-LaRoche Ltd., a Swiss company having a 40% world-wide share of the vitamin market, pleaded guilty to violating the Sherman Antitrust Act and agreed to pay a penalty of USD $500 million. The company stated they expected substantial further fines in Europe and Canada. A second company, the German firm BASF A.G., which commands 20% of the international vitamin market, agreed to pay a fine of USD $225 million for their participation in the "conspiracy." (Reno's word, not ours.) Dozens of lesser companies were also investigated.

The third largest company in the cartel, the French conglomerate Rhône-Poulenc, agreed to testify against Roche and BASF in order to receive amnesty from prosecution. Good-hearted as this may seem, it was not a pang of conscience that convinced Rhône-Poulenc to drop a dime on their co-conspirators. Rhône had a pending $22 billion merger with Hoechst A.G. which could not be completed without the approval of antitrust officials in both the U.S. and Europe.[7] (Interestingly, BASF and Hoechst were part of the I.G. Farben breakup following the Nurenberg Trials of WWII. For those who would like to know more about the astonishing I.G. conglomerate, do an online search for "ig farben.")

Following the antitrust trial in Dallas, Hoffman-LaRoche's CEO Franz B. Humer stated, "I'm personally, absolutely shocked at what has happened." But then, so were we as kids when we got caught with our fingers in the cookie jar.

Back to the math for a moment. The 2003 combined revenues of the top 15 pharmaceutical companies were in excess of USD $270 billion—nothing short of colossal. Consulting our abacus, two conclusions become immediately apparent: 1) pharmaceuticals are a hugely profitable industry—second only to the U.S. defense industry, and 2) crime pays.

All of this is particularly puzzling, especially in light of the recent admission of Dr. Allen Roses, worldwide Vice President of Genetics at GlaxoSmithKline, the fourth largest pharmaceutical company in the world, and Britain's largest pharmaceutical firm. Dr. Roses made a most astounding admission—one that has been an open secret within the pharmaceutical industry but never before publicly voiced by such a senior drug boss. Speaking at a scientific meeting in late 2003, Dr. Roses admitted most pharmaceutical drugs are ineffective for most of the people who take them. He stated that "The vast majority of drugs—more than 90%—only work in 30-50% of the people. I wouldn't say that most drugs don't work. I would say that most drugs work in 30-50% of people."[8]

Having a formidable reputation in the field of pharmacogenetics, Dr. Roses explained that most drugs are effective in fewer than one in two patients primarily because persons taking the drugs carry a genetic makeup that in some way interferes with the drugs' effectiveness. He cited statistics on the effectiveness of different classes of drugs, as follows: Alzheimer's: 30% effective; Asthma: 60%; Cancer: 25%; Depression: 62%; Diabetes: 57%; Hepatitis C: 47%; Incontinence: 40%; Migraine: 52%; Rheumatoid arthritis: 50%; Schizophrenia: 60%.[9] The French philosopher Voltaire summed up the issue over two hundred years ago when he stated, "Doctors give drugs of which they know little, into bodies of which they know less, for diseases of which they know nothing at all."

Concerning surgeries, almost two decades ago former Director of Project Head Start and author of the classic *Confessions of a Medical Heretic*, Dr. Robert Mendelsohn blew the whistle and reported that each year in the U.S. millions of unnecessary surgeries are performed on the unsuspecting public, resulting in thousands of unnecessary fatalities.[10] This statistic does not do justice to all of the other hardships caused by such a large number of unnecessary surgical procedures.

In the information which follows, we tend to focus on treatment methods rather than methods of prevention. That's because we assume many readers already have medical problems for which solutions are presently being sought. Nevertheless we realize—as you should as well—that whatever medical ailments may presently plague you, they have originated for some reason—probably having to do with poor dietary habits (e.g., eating too many processed foods which contain unhealthy oils, chemical additives, etc.) and unhealthy lifestyles

(e.g., little or no exercise, lack of sleep, etc.). Therefore, in order to maintain any progress you may have achieved from the information contained within this work, dietary and lifestyle changes must be made. Otherwise, the underlying problem(s)—the disease-causing mechanism(s)—may still be in operation. For general prevention strategies, see ***Nutrition: Detoxification and Deficiencies*** under **General Treatment Methods.** Furthermore, many/most treatment methods are also effective preventives.

This book contains many potential solutions covering a diversity of ailments. We suggest that most of the time your medical disorder can be fixed or at least significantly improved. However, it should be pointed out that, generally speaking, no single remedy works for everyone, and that you may have to experiment with several prospective treatment methods before finding one or a particular combination that is personally effective. You must have the fortitude, both financial and emotional, to follow up on this. You must be consistent, persistent and patient.

One last item. We would like to explain what is meant by the term "forbidden" as used in the title of this book. Simply put, many medical researchers have noticed over the years that, for one reason or another, a larger-than-expected number of important medical discoveries/treatments do not find their way into everyday use by the general public. It's as if these technologies have fallen silently into a medical black hole, never to be seen by the needy public. Or, more subtlty, even though some of these modalities may be made available to some extent, they have not been in the past and are not currently publicized and allowed to prosper in the open marketplace. They are either subtly or not-so-subtly ignored and/or criticized when compared to the more popular treatments currently available. Consequently, they are known only to a relatively small number of people. There are a number of reasons why this happens.

On the one hand, there are certain medical procedures/treatments/medications that are banned for use within specific countries,—i.e., they are illegal. In the U.S., for example, many drugs popular in Europe are prevented from being sold, even when they have been shown to be safe and effective by reputable monitoring agencies. Memantine (Namenda®) is one example of a drug used successfully in Germany for over 10 years in the treatment of Alzheimer's disease. It was made available to the American consumer only in 2004, after much lobbying by consumer groups who knew of the drug's benefits.

If memantine accidently slipped through the cracks and was inadvertently ignored by the medical establishment, strophanthin has suffered the same fate—but more egregiously. Brought to England in 1862, strophanthin was quickly recognized as a miraculous heart tonic. Today, its widespread use could save hundreds of thousands of lives globally each year. There is currently no other pharmaceutical preparation that fully replicates strophanthin's beneficial actions. Nearly a century-and-a-half after its discovery, why is strophanthin readily available only to people living in Germany?

In addition to drugs, many life-saving treatment methods/technologies find their way into perpetual obscurity. It is not that these methods are replaced by superior technology as time progresses. On the contrary, many of the forgotten treatment methods are arguably some of the most effective technologies ever discovered by man. One would think such discoveries would be difficult to forget—particularly when they save lives and especially considering that no more effective technologies have replaced them.

Photoluminescence, for example, discussed under **General Treatment Methods**, is a technique developed by American physicians during the early 1900s. It uses simple light rays of a certain wavelength to treat the blood of the ailing patient. Although Photoluminescence is effective against a multiplicity of medical problems, one of its specialties is infection. Considering that infectious diseases are an ever-growing problem in today's world, why have the tremendous benefits of this technology been virtually ignored by the medical authorities in so many countries throughout the world including the U.S.? Although there are American physicians who practice Photoluminescence, they are under the constant eye of their local Medical Boards and often feel intimidated. If this technology were more widely known, the grip infectious diseases have over man would be significantly lessened.

Insulin potentiation therapy (IPT) is another important life-saving technique that has been virtually passed over by traditional medicine. IPT was developed by a family of three generations of Mexican physicians. It is one of the most effective, simple, and least expensive therapies for treating a host of ailments. Why are there barely more than 100 practitioners worldwide more than sixty years after the discovery of the technique? The answer will become painfully clear when you read about IPT under **General Treatment Methods**.

Before becoming a virtual poster child for alternative cancer treatment, not only was Dr. Stanislaw Burzynski's discovery of cancer-defeating *antineoplastins* forbidden, the American medical authorities tried for years to jail the doctor. Only public outcry saved the career of this courageous physician. Antineoplastins have saved countless lives and Burzynski's discovery is now available to the public, but only after many trials and tribulations for him and his loyal and respectful colleagues and patients.

Whether there is a "formal" legal ban as in the case of some pharmaceuticals, or more subtle forms of "banning" certain medical practices by not allowing them to prosper (for example, as the result of negative or even no publicity, etc.), many proven, life-saving modalities never reach the surface of public awareness. And the physicians who practice these methods often feel the pressure of offering a "non-standard" medical treatment to their patients, and in certain countries may be fearful of legal and professional recrimination for using an "unapproved" or even an "unknown" technique.

The list of "forbidden" medical treatments goes on and on, and you will discover many more of them as you continue to explore these pages. We believe it will become increasingly apparent that many important medical discoveries remain unknown or little known to large segments of people, even those who are interested in so-called alternative and complementary medicine.

The principal thread running through the "disappearance" of many of the little-known therapies discussed in this book is an active interest by competitors to see that their competition (or even the potential competition) does not survive. Most readers recognize this as a free-market economy in action. Under these circumstances, however, where literally millions of human lives are at risk, more conscious behavior on the part of those involved would spare much suffering and death to those in need. The fact that humans would knowingly trade lives to increase the profit margin of a company is a sad commentary on the present state of human consciousness, and a wakeup call for change.

For additional information about treatment methods discussed in this book, or to locate a medical practitioner in your area skilled in a particular treatment method, contact the American College for Advancement in Medicine at (800)532-3688, (949)309-3520; www.acam.org, or the International College of Integrative Medicine at (866)464-5226, (419)358-0273, www.icimed.com

Wishing you the best of luck in your search for a harmonious and healthful life,

—The Staff of Medical Research Associates

To ensure that you see all information relevant to a particular topic, consult the Index and the Member's Area of *The Encyclopedia's* website.

Introduction

The human being is an intricate organism composed of several aspects—mind, body, spirit. Some would argue only two aspects exist—mind and body. Nevertheless, when the aspects are functioning properly, all is well with the world, life is a happy event, and there is no experience of illness or perception of pain, either mental or physical. However, with age, injury, and stress, illness and pain become serious factors in our lives.

The primary object of this writing is to focus on remedies which treat the underlying causes of illness and disease. If we are able to rid ourselves of these maladies, life can be extended and lived to the fullest. Otherwise, life is shortened and accompanied by illnesses' byproduct—the experience of pain. It is because pain causes such turmoil and upheaval in peoples' lives that it is so necessary to focus on the pain-reduction aspect of illness and disease. Clearly, more attention must be given to reducing pain, and that means new treatment methods must be found that are capable of effectively resolving its underlying causes.

The incidence of illness and disease, and the accompanying pain that it causes, is significant. In a 2003 study called Pain in Europe,[1] one in five Europeans, or about 75 million people, were found to be living with pain—often agonizing, long term pain. According to the report, this has led as many as 15 million Europeans to contemplate suicide. One in five chronic pain sufferers reported they had lost their job as a result of their condition. Thirty-four percent reported their sex lives had been affected, and 73% said their pain interfered with normal sleep. Similar unfortunate statistics are found in other industrialized populations.

The human being—the pinnacle of evolution, called the Crown of Creation—must also be Earth's most sensitive sensing being. Eagles and other birds of prey can see much farther, dogs have a keener sense of smell, and most animals have a more highly-developed sense of hearing—but the human must surely be the being with the most highly-developed sense of pain perception.

No doubt a series of environmental factors plays a role in how we experience pain—i.e., to some extent we learn to hurt. There is no better example of this than Napoleon's soldiers who, during the Russian campaign of 1812, would soon return to battle on horseback after having a limb amputated.[2] This type of experience is difficult for most contemporary Westerners to comprehend. Nevertheless, for whatever reason(s), modern-day humans are the creatures that seem to experience pain more acutely in comparison to other living beings—or at least this is how most people would judge the perception of our pain in comparison to that of other animals.

This is particularly true of mental pain. Even though our highly-developed mental faculties are able to solve problems our pets can't dream of formulating, this same mental sophistication can turn on us with a ferocity not experienced by either domesticated pets or animals in the wild. For example, when is the last time you noticed your love-torn, jilted dog or cat losing sleep over a relationship gone bad? Have you noticed your canary being upset about her feathers being the "wrong" color, or panic stricken when her plumage changes color with age?

True, this is a simplistic way of looking at animals' emotions (feelings). We know, for example, that elephants mourn their dead, that our old cat doesn't want to deal with a new, fuzzy house guest, and that dolphins have sex seemingly only for fun; nonetheless, the basic point is valid—namely, that human beings are mentally developed in quite different ways from other animals, and it's this sophistication that makes us the leader in the pain perception department.

The Body-Mind-Body Loop

In humans, physical pain most often becomes mental pain as well, and vice versa. For us, the pain simply can't be separated—the two are inexorably intertwined. We all have noticed that we're not at our mental (emotional) best when experiencing the throbbing of a painful tooth, or even a stubbed toe. The physical sensation of pain seeps into our psyches like melting butter on a hot piece of corn-on-the-cob. Physical pain disrupts sleep, produces anxiety and can lead to depression and myriad other physical involvements. On the other hand, researchers at the Johns Hopkins University have found that relieving or preventing pain tends to

strengthen the body's immune response.[1] No pain, big gain.

Just as the body can exert powerful influences on the mind, it is well established that the converse is also true—the human mind can exert powerful effects on the body. It is known that negative psychological states such as depression and anxiety can lower the body's immune function, opening the door to various types of illness and disease. For example, depression has been linked to dramatic reductions in immune function, including the reduction of white blood cell activity and lowered antibody responses.[2] In one dramatic study, a team of researchers at the University of Bergen in Norway monitored a group of more than 60,000 Norwegians from 1995 to 1997. Those participants who had the highest levels of self-reported anxiety in 1995 were 25% more likely to develop premalignancies[3]—abnormal cells that can turn cancerous. Witnessing studies such as this, immune system researchers have commented that it is almost as though the immune system itself is expressing grief.

One of the most dramatic pieces of evidence of mind influencing matter (body) was a study performed by the Cleveland Clinic Foundation in 1992. Subjects trained for 15 minutes a day, five days a week, for a period of 12 weeks to *imagine* (via intense concentration) they were flexing muscles in either the little finger or the elbow. At the end of the three month period it was found that muscle strength in the finger increased by 35%, and elbow flexor strength was enhanced by 13.4%. Physiological monitoring of the supplementary motor area of the brain showed cortical signal increases with increased mental practice. Magnetic resonance imaging (MRI) studies indicated the prefrontal lobes were involved, as well as the primary sensory motor cortex. It was also found that the strength gained during the training was maintained even after the training ended, especially in the group that exercised the abductor muscle of the finger. The study director reported that "all you have to do is sit in a quiet place where you can concentrate. You don't need any equipment. You don't need to spend a cent."[4]

We all have experienced the acute pain of bumping an elbow, dropping something on our foot, a sore throat, or the like. The best thing about these types of pain is that even though it hurts, we know the acute pain will be short lived. Just this knowledge alone somehow makes the pain more bearable. In a few minutes, hours, or days at the most, the pain will dissipate and life will resume its normal pace. Chronic pain, on the other hand, is an ongoing burden with no end in sight. Pain is labeled as chronic when it goes unrelieved for at least three months. Nearly 50% of adult Americans experience this type of pain.[5] According to a recent *Wall Street Journal* article, the economic price tag for medical costs, lost income, lost productivity, compensation payments and legal costs related to pain exceeds $50 billion annually.[6]

DIFFERENCES IN PAIN PERCEPTION

Despite conventional wisdom—probably related to the function of childbearing—it has been shown that men generally have a higher pain threshold than do women, i.e., men tolerate pain better than women. In a recent study published in the *Proceedings of the National Academy of Sciences*,[1] researchers discovered a protein called GIRK2, which is part of the physiological system by which a drug or the body's neurotransmitters dampen the pain signal within a nerve. This protein seems to be more active in males than females. By removing GIRK2, the sexes become more equal in their ability to withstand pain.

Another fascinating study shows that when it comes to pain perception in general, a tiny variation in a single gene separates the men from the boys...and the women from the girls, so to say. Researchers at the University of Michigan and the National Institute of Alcohol and Alcoholism have discovered a gene that differentiates how men and women withstand both physical pain and emotional stress. The gene produces an enzyme called COMT (catechol-O-methyl transferase), which is critical in mopping up the dopamine neurotransmitter (secreted in the brain) linked to the experience of sensing pain.[2]

Macho men (and women), believed to be about 25% of the population, carry a more robust form of the gene than do the "wimps"—those who experience pain more easily, accounting for an additional 25% of the population. Those individuals with both forms of the gene—the more robust from one parent and the weaker form from the other parent—experience intermediate pain. This group

accounts for the remaining 50% of the population. Those with the most active genotype from each parent produce the COMT enzyme which is three to four times more active in uptaking the dopamine chemical.[3] These are generally considered to be the more stoic people, as opposed to those much more sensitive to physical pain and emotional stress.

Pain Relief Throughout History

Over the centuries, different cultures have held various ideas concerning the subject of pain. Some have felt pain to be a "necessary evil." Others have felt, "No pain, no gain"—for both physical and mental pain. "These are experiences which strengthen the character of an individual," so it is said. Still others have believed God wants us to experience pain—for example, the pain of childbirth is the so-called "duty" of the mother. Any medication given to the expectant mother would be an act against God, according to this view. Some have thought the Earth to be flat.

Throughout the ages humans have used many different forms of pain relief—some quite enlightened, and others patently ludicrous. On the ludicrous side, the ancients practiced a form of pain relief called blood-letting, wherein blood would be drained from various parts of the body. To stop the bleeding, a branding-iron-type device would be used. This practice persisted even into the late 1700s. Another form of pain relief practiced by the ancients is called *trepanning*, or *trephination*. This practice involved chiseling a hole into the skull in order to let out whatever evil was suspected to lurk therein. The procedure is still practiced today, although rarely, because it obviously goes against modern medical ethical practices. Other forms of pain treatment have ranged the gamut, from contact with electified fish to being subjected to bee stings. Pharmacological agents, i.e., drugs, have evolved alongside these other methods.

The Opiates. There is an historical record of man's use of the opiates for pain relief dating back as long ago as 4,000 years. Derived from the opium plant (poppy), the opiate drugs include heroin, morphine, and codeine. Heroin—about five times the strength of morphine—was first synthesized in 1874. Known chemically as *diacetylmorphine*, heroin was sold world wide during the early 1900s by the Bayer Company, the German company founded by Dr. Bayer which later become part of the infamous (German) I.G. Farben conglomerate (cartel). In 1906, the American Medical Association (AMA) approved the use of heroin as a replacement for morphine for general public consumption, and painful conditions in particular. By 1924, heroin was outlawed in the U.S. because of its addictive properties. In 1659, Sir Christopher Wren administered the first successful intravenous anesthetic in the form of an opiate. Nevertheless, it would be another 200 years before intravenous anesthesia gained general medical acceptance.

Cocaine. Cocaine, a derivative of the leaves of the coca plant, has been used by indigenous peoples throughout history where the plant grows naturally. The leaves are still chewed today by many South American natives as a matter of routine daily practice, providing an energy-enhancing and general palliative effect. Partially due to the efforts of the famous psychiatrist Sigmund Freud, cocaine became very popular during the late 1800s. Coca Cola derives its name from the plant, as early formulations (but not the "classic" Coke...) contained ingredients from the coca plant. During the early 1900s in the U.S., many drugs were banned from use, including cocaine. Even today in the U.S., the clinical use of cocaine is all but non-existent, as most physicians fear legal repercussions from the Drug Enforcement Agency and their local Medical Boards. Many other countries continue using the drug for appropriate clinical applications.

Up in Smoke. For better or for worse, man's use of marijuana is also documented in the historical record. Used both medicinally for pain and other benefits, and recreationally for over 5,000 years, the *Bible* makes reference to reefer in at least three instances, calling it kaneh, kannabus, and aromatic or sweet cane. History tells us the Father of America, George Washington, may have had a particular affinity for the plant. During the mid-to-late 1800s in the U.S., there were many favorable articles published in reputable medical journals recommending its use for a wide variety of physical and mental disorders. In 1937, cannibus fell out of political favor and was outlawed in the U.S. Recently, several states have approved medical mari-

juana ballot initiatives, much to the chagrin of many politicians and religious conservatives. Even still, the federal government won't honor what citizens support at the local level, and continue to spend billions of dollars annually to stop purveyors of smoke. Canada, on the other hand, has recently all but legalized the personal use of pot, making small quantities a minor offense. Belgium has recently legalized the substance. For decades Holland has led the way in the decriminalization of marijuana. In August 2003, the Dutch government made marijuana available as a prescription drug offered in two strengths, in addition to its continued "legal" street use.

Got Gas? Nitrous oxide (N_2O), also known as laughing gas, was identified in 1772. N_2O was the first gas recognized to have analgesic properties—initially observed by scientist Sir Humphry Davy—and it is still in use today by many dentists as an anesthetic. In 1846, Boston dentist W.T.G. Morton successfully and routinely used the gas ether in his dental practice. This marked the acceptance of anesthesia in general medical practice, with the exception of childbirth, in which case pain was viewed by the religious community as a "requirement" of childbearing. Also around the mid-1850s, chloroform gas started to become widely used as an anesthetic in general medical practice.

Modern Pain Pills. Concerning the opiates, these drugs represent modern medicine's principal armamentarium against the war on serious pain. Opiate derivatives are widely prescribed throughout the Western world, generally with effective results and minimal side-effects. The caveat to this is that in the U.S., this classification of drug is often withheld from patients most in need of their use—even terminal patients in severe pain—resulting from the current political climate. In cases such as this, the War on Drugs becomes a War on Patients.

Other pain relievers of lesser ability also are prominent in Western medicine. Acetylsalicylic acid (aspirin) came into use in about 1830 and has been sold world wide as a pain reliever since the early 1900s. In 1955, acetaminophen was introduced into the U.S., and in the 1970s ibuprofen was introduced as a prescription drug, followed by over-the-counter (OTC) approval in 1984.

Today throughout the Western world, there are many new anti-inflammatory drugs—including Non-Steroidal Anti-inflammatory Drugs, or NSAIDs—which are available both by prescription and over-the-counter. Many physicians understand that NSAIDs are of limited use in reducing pain, and may cause bleeding of the stomach lining (GI tract) and/or kidney and liver difficulties. Typical NSAIDs include naproxen (Aleve,® Naprosyn,® and Anaprox®), indomethacin (Indocin®), and ibuprofen (Midol IB,® Advil,® and Motrin®). Aspirin and acetaminophen (Paracetamol® and Tylenol®) are also considered non-steroidal drugs.

According to a 1998 article in the *American Journal of Medicine*,[1] more than 16,000 arthritis patients die each year in the U.S. from the use of Non-Steroidal Anti-inflammatory Drugs, and over 100,000 people are hospitalized due to NSAID use, generally due to gastrointestinal bleeding or perforation. Although these numbers are alarming, they are little known to the unsuspecting public. What should be a big clue is the October 2004 removal from the market of Vioxx, Merck pharmaceutical's sales blockbuster—which was shown to significantly increase the risks of heart attack and stroke. Modern pills? Yes. A better form of treatment? Probably not. You can read more about NSAIDs in the section on ***Arthritis***, and more about how Merck literally "made a killing" on Vioxx in Appendix B.

The remainder of this book will focus on Specific Ailments as well as Treatment Methods which have been found effective in treating a wide variety of maladies. It should be noted that *wherever applicable*, the recommended treatment methods focus on the cause of the ailment rather than simply ameliorating pain and other symptoms. The exception to this is the group of treatments for pain relief, which generally offer pain amelioration without particular regard to the underlining cause of the problem, with certain exceptions. Nevertheless, pain amelioration by itself can be a godsend. Please note that many of the topics discussed in the **Pain Relievers** and **General Treatment Methods** sections are applicable to many ailments discussed in the **Specific Ailments** section.