



Turning Point

Integrative Solutions for Chronic Pain

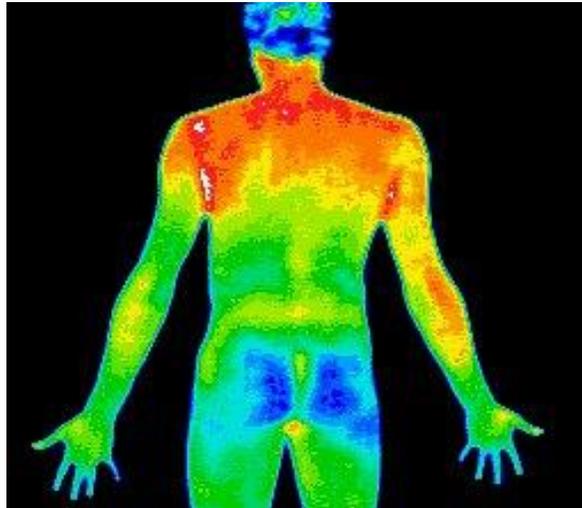
*The most effective
alternative & integrative
approaches to pain*

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Turning Point

The Most Effective Alternative & Integrative Treatments for Chronic Pain

Michael Wedge, L.Ac., M.Ac.O.M., DCH



Thermographic image of chronic pain

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Warning - Disclaimer

This book is designed to provide information regarding treatments which may be effective in the management and treatment of chronic and intractable pain. The ideas and suggestions included in this book are intended to educate, not provide strategies and treatments specific to any person or medical condition. It is highly recommended that you consult a practitioner knowledgeable in these treatment approaches prior to deciding which is best for you. The author shall have no liability or responsibility to any person or entity with respect to loss, damage or injury caused or alleged to be caused directly or indirectly by the information contained in this book. The information contained in this book is not to be a substitute for proper medical care.

Acknowledgements

I would like to dedicate this book to my patients who have taught me so much over the previous 23 years and to my many instructors who have taught me the art and practice of excellence in health care.

PLEASE NOTE

This book title states “The most effective alternative and integrative treatments for chronic pain” which is obviously in the opinion of the author. This is based on over 23 years of treating people experiencing pain and becoming aware of what treatments have been utilized and which ones work the majority of the time and which ones don't. I have no illusion everyone will agree with my opinions. I am simply presenting information on treatment approaches I believe are the most effective alternative and integrative approaches to pain. There is one exception to this and that is the short section on EFT. The specifics will be discussed later.

This book presents information based on the experience of the author. No product or approach is being endorsed as a treatment specific to any one person. No representation as to the suitability of any treatment, approach or supplement is being made. Rather, these are approaches that may be beneficial when dealing with chronic or intractable pain. Consultation with a trusted and knowledgeable health care provider is necessary to determine the appropriateness of any of the approaches discussed in this book.

Chronic Pain / Intractable Pain

There is a difference between intractable pain and chronic pain, as many of you are aware, but for the sake of simplicity, I will use the term chronic pain to imply both conditions. Intractable pain can be a far more difficult problem to deal with, but the suggestions contained within this book are applicable, potentially anyway, to both types of pain.

[Table of Contents](#)

Preface

Introduction

Chapter 1 Why An Alternative Approach?

Chapter 2 Acupuncture

Chapter 3 Chiropractic

Chapter 4 Hypnosis

Chapter 5 Pain Neutralization Technique

Chapter 6 Biofeedback

Chapter 7 Emotional Freedom Technique

Chapter 8 Mindfulness

Chapter 9 Supplements & Hormones

Conclusion

Addendum Acupuncture – A Deeper Understanding

About the Authors

Preface

“The Greatest evil is physical pain”. St. Augustine

I'm not sure the previous quote is an accurate assessment of evil in our world, but for those who suffer from chronic pain, their pain is an ever present, life-altering experience. Chronic pain robs a person of quality of life, and sadly, at times, life itself.

There is a poem I enjoy that has as its final sentence the following words: “To know that even one life has breathed easier because you have lived; this is to have succeeded.” It has been my privilege to work with, and effectively treat thousands suffering from chronic pain. Sadly, not everyone responds as we would like, but because of my experience treating chronic pain for decades I can share with you what my experience validates as frequently effective treatments.

This book is not intended to be an exhaustive look at alternative and integrative approaches to pain management. Rather, my intent is to provide a starting point for further research and if you are so inspired, to try one or more of the approaches discussed in this book. Those that suffer from chronic or intractable pain tend to be very knowledgeable about conventional and alternative approaches, but certainly not everyone. On many occasions I have seen people in my office that told me they never thought about acupuncture to help address their chronic pain, or they had heard about acupuncture but figured it could not possibly be of benefit and if there was benefit, it had to be placebo. It was in fact their physician or spouse that most often brought acupuncture to their attention and, as an act of desperation, came to the office for treatment.

It is not the intent of this book to deal with the more standard treatments for chronic pain as there is already an abundance of information available. I consider standard treatment to include pharmaceuticals, surgery and other interventional pain management treatments and physical therapy. These approaches undoubtedly help some, maybe many, but by simply looking at the statistics you will see the treatment of chronic pain has been far less than satisfactory. The simple fact that you are reading this book suggests either you or someone you know is suffering from chronic pain and you are looking for viable approaches other than, or in addition to, standard care. This may be due to failure of standard medical care, or because you simply wish to pursue another approach.

So just what is covered in this book? Quite simply, I will be discussing nonstandard approaches. Some of these approaches you may be quite familiar with, or have at least

heard of, and others may be completely new to you. All of the approaches include in this book work, some as primary treatment modalities and others, for example the chapter on herbal and nutritional approaches for pain, are best used in conjunction with some of the other approaches discussed.

You may have heard positive and negative comments about the topics that follow. Some topics might be of interest to you and others might not, but as you read through this book I ask that you set aside any preconceived beliefs and take the time to consider the potential benefits of each treatment approach.

I wish for you the same that I wish for myself and family; abundant health and a quality life free of chronic pain.

Introduction

“If you are going through hell, keep going.” Winston Churchill

Does the following story sound familiar to you? Even parts of it? This story is fiction, as it is not one person's story, but rather a story representative of so many suffering from chronic pain. The frustration, anger and despair is palpable in the lives of those suffering from chronic pain.

This is my story. I remember in the beginning thinking that this was all a big mistake. See I had been in a car accident that wasn't even my fault. I did everything the doctors recommended. Went to physical therapy 3 times a week, practiced my stretching exercises at home, rested, took the medication and waited. But here's the thing: The pain never went away. I kept waiting and waiting and waiting. And complaining and complaining and complaining. To my doctor, to the physical therapist, to family members, to anyone who would listen. Eventually my doctor got sick of listening so she sent me to a specialist. It seems like I had every test and medication known to mankind given to me. Of course, with each test or medication, it meant more waiting. Waiting for the results. Waiting to see if the medication would help me feel better. Waiting to see if they could figure out why I was still hurting. And with each test, with each med, I got my hopes up. And each time, I was disappointed again. It was like a crazy roller coaster that I couldn't get off of. Hopes up, hope down. Next trial of something else and hopes up, and then hope down. I remember thinking “what have I ever done to deserve this? Was I being punished for something?” Eventually they told me there was nothing more than can do for me. How could this be? How can they put a man on the moon, and yet they can't help me? That just didn't make any sense. And I didn't believe it. I could not, would not, accept that I had to live my life in this horrible pain.

I remember the day I just lost it. I was at home and my sister said to me that I will have to learn to “live with the pain.” I totally blew up. Screamed and cursed and ranted and raved. I cursed the pain, I cursed my body, and I cursed everyone who tried to tell me that I had to get on with my life. I sure must have looked like a crazy person that day.

I'll tell you this, I used to be an outgoing, spontaneous and fun person. The pain changed all that. I was tired all the time. Most days I didn't even want to get out of bed. I didn't feel like being around my friends or my family. They didn't really understand anyway. Heck, sometimes it seemed they thought I was making it all

up; like it was all in my head. A couple of times I even thought it would be easier to be dead than to live like this. It felt like I had hit the bottom. I felt helpless and hopeless.

Then one day the truth of the situation came crashing over me. They (the doctors) would never give me enough medication to make the pain stop so I needed to stop asking and they (the doctors) didn't know how to fix me. If I was ever going to have a life, I would have to figure out how to help myself.

I wish I could tell you that I found the "answer" and that it was easy. But it wasn't and I didn't. This isn't quite a "happily ever after story" but it is an "it's much better than it was" story. What I found out is that there is a lot of great stuff out there that helps, most of which my doctor never told me about. There are some days now that I am pain free (yippee). And there are some days that I am not. But even on those days, I am better than I used to be. Everything is different now. I got my life back.

Chronic pain is a difficult-to-define disease state as it is subjective experience with both physical and emotional components. Sadly, chronic pain is an extremely pervasive problem impacting about one-third of the population. A smaller portion experience intractable pain. The impact on quality of life, emotional health, financial health and its impact on family and friends is impossible to quantify.

The physiology and psychology of chronic pain and the interplay between the two as well as social and environmental influences is a complex and poorly understood topic. A discussion of these components of the chronic pain experience may be academically interesting, but that's not what this book is about. You have one question and it's a simple and straight forward one; can the information in this book reduce or, ideally, eliminate my suffering? After all, that's why you are reading this book and it's why I wrote it.

The definition of chronic pain varies, but it is a pain that persists past the time required for a typical injury to heal. Some regard 3 months of persistent, albeit not necessarily constant, pain to warrant the label of "chronic" and others up to 6 months. Regardless of the definition, chronic pain is a pain that is ongoing and is rated as at least moderately intense by the person experiencing it. Because the definition of chronic pain varies, pinning down the numbers of those suffering from it can be difficult.

The International Association for the Study of Pain published a review of 13 pain-related studies that were completed in various parts of the world. The data showed that between 10 percent and 55 percent of the population suffered from chronic pain. This was more prevalent in women than men. Studies just looking at the United States show about 31 percent of the population suffers from chronic pain, again, considerably more

women than men. Whatever the exact numbers are, chronic pain is responsible for a huge amount of suffering and costs massive amounts of money both for the direct costs of medical care and in lost time earning money. Of course the costs to the personal lives of those with chronic pain and their families, is staggering.

In addition to dealing with chronic pain, those suffering with this relentless enemy also frequently deal with other problems known as comorbidities. Some examples include insomnia, often times due to either the pain medication or the pain directly, or both; stress and frustration due to pain and loss of quality of life; increased weight gain and loss of mobility due to lack of exercise and physical activity in general; and of course loss of income and the life altering impact it brings.

If you or someone you know suffers from chronic pain you are likely very aware of what was just shared. The question is what can you do about it? Surely there must be an approach that will help, if not resolve your pain. Maybe you have followed every suggestion your physicians have recommended yet your life remains in upheaval due to continued pain. You are frustrated, if not desperate, and you are looking for a viable alternative, something that must have been over looked. Within the pages of this book you will be exposed to proven approaches that may very well provide you with the relief you are looking for.

Because chronic pain can be caused by a variety of etiologies, there is no “one size fits all” treatment. What I mean by this is chronic pain can be related to trauma, degenerative changes, autoimmune problems, cancer, fibromyalgia and others. One type of treatment may be excellent for trauma, but of little or no value for an autoimmune problem such as rheumatoid arthritis. As a result, there can be significant differences from person to person so the suitability of any given treatment is best discussed with a trusted and knowledgeable health care provider. What I mean by knowledgeable is someone with a good familiarity with the treatment approaches that follow.

Why has my doctor not discussed these approaches with me?

You are right to ask yourself and others this very straight forward question. If these treatments are as good as I say they are, surely your doctor must know about them. Why then have these options not been discussed?

This is actually a very complex question with a variety of answers, answers that are incomplete in many ways. I would say the primary reason is ignorance of alternative medical practices. Although this has changed dramatically over the many years I have been in practice, it still remains a problem. Change is slow, but substantial research has been done, and although some research is negative, the overwhelming body of

research is very positive and supportive of the practices that will be discussed in this book. Another problem is adherence to what is referred to as standard of care. For example, if someone presents to their physician with chronic low back pain, an extremely common problem, the person is frequently referred to physical therapy. That is the standard of care. But very frequently physical therapy falls short and people remain in pain. Since the standard of care did not work, and if there is no surgical necessity, the common practice is to medicate a person and send them on their way. Thus begins the chronic pain pattern so many are stuck in. What we need is a change in medical education, something that has actually been happening for many years, and then to wait for those stuck in the old paradigm to move out of medicine as they retire and allow those educated in a different paradigm to come into power. The late Max Plank, a prominent German physicist, said it best when he said

“A scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die and a new generation grows up that is familiar with it.”

I suspect an entire book could be written as to why the acceptance and integration of many of the therapies discussed in this book have not been woven into the fabric of our health care system. Because of firsthand experience in the practice of the discussed treatments or because of direct feedback over more than two decades from my patients, I can tell you the treatments discussed in this book are powerful and have the potential to improve the quality of your life by bringing your pain under control or eliminating it all together.

I am not suggesting conventional approaches to pain management are not beneficial, that would be irresponsible and incorrect. But I believe there is a very important place for the treatment approaches discussed in this book. I also believe we should adopt what I call a ladder of invasiveness. What I mean is that the more benign treatments should be utilized prior to treatments that may very well leave a person worse off if it fails. For example, wouldn't it be beneficial to try acupuncture which, if unsuccessful, has no negative repercussions, prior to utilizing an invasive surgical procedure that has the potential to cause significant damage? Now they not only have the original pain problem, but they have the surgically-induced problem as well.

It is not my intent to be negative towards invasive procedures. Invasive procedures serve an important service and at times immediate surgical intervention is necessary to prevent further problems, but when time permits, why not slow down and try a less aggressive approach, an approach that will frequently reduce or eliminate chronic pain. What I am suggesting is simple; a truly integrative approach to pain treatment.

What this book is and is not

This book is intended to share with you treatments that may be effective in reducing or eliminating chronic and intractable pain. It is not intended to be an in depth discussion of these approaches and little attempt has been made to discuss the pathophysiology of pain. Please use this book as a starting point for further discussion and investigation of these topics.

Structural vs Nonstructural Pain

There is an important distinction that needs to be made. I have used the term structural related pain and this needs to be defined. Chronic pain falls loosely into two categories, structural and nonstructural. I define structural pain as pain and or other symptoms such as tingling, numbness, etc., that is caused by a structural abnormality such as a ruptured intervertebral disc. These types of problems typically require surgical intervention. Alternative therapies such as acupuncture and chiropractic will generally not result in prolonged improvement in these patients. The underlying pathology needs to be addressed. Pain that remains following corrective surgery will typically respond very well to therapies such as acupuncture.

Although this description sounds like a rather clear distinction, this is not always the case. I have seen many people with MRI diagnosed pathology with associated pain that responded very well to alternative type's treatment. This suggests to me the identified pathology although suggestive of a cause and effect relationship, was in fact not directly responsible for the pain. As suggested later in this book, unless immediate surgical intervention is required, a short course of conservative treatment is a good approach. As a personal example, I developed acute, extremely intense pain in the right side of my neck, shoulder and down my arm following digging of a hole. The pain involved the 6th cervical nerve and extended into my thumb and there was associated tingling and burning. An x-ray showed no space between two of my cervical vertebrae in the area of the 6th cervical nerve. There was a suggestion this was a congenital finding but at the same time the x-ray findings corresponded to the location of pain I was experiencing. I took a conservative approach to treatment to determine if the problem was in fact structural. The problem resolved without surgical intervention. Bottom line is the apparent cause of a problem is not necessarily as it appears to be. Surgical intervention when needed can produce wonderful results, but it is not without the potential for causing more harm.

Chapter 1 Why An Alternative Approach?

Why an alternative and integrative approach?

Integrative Medicine

We hear the terms alternative medicine, complementary medicine and integrative medicine being tossed around a lot, often times interchangeably. But are they really the same? What do these terms mean anyway and is it important to know the difference?

Let me begin with the easiest question to answer; is it important to know the difference between these labels? In short, I don't think so. There is a difference, sometimes minimal, between these labels, but from a point of view of your personal health care, it's more of an academic exercise than a practical one. Having said that, I will explain the differences.

Western Medicine

In the west, we have what most think of as standard medical care. This is what we grew up with, it's what we encounter when we see our MD. This style of medicine was originally referred to as allopathy in the late 1700's or early 1800's by [Samuel Hahnemann](#), a homeopath. The term allopathy was actually a derogatory term at the time, but has become more of simply a label used to differentiate standard western medical practices from other styles of medicine.

Alternative Medicine

As other styles of medicine began to infiltrate our society, these forms of medicine were broadly labeled alternative medicine. Of course there were less kind labels for alternative medicine such as quackery and snake oil. Quite honestly, much of what passes as alternative medicine is quackery, in my opinion anyway. As time passed and research to examine the claims of alternative medicine practitioners was completed, a separation of the wheat from the chaff began to take place. In the process western medicine slowly began to accept, at least to some degree, the validity of some aspects of alternative medicine. Admittedly some were pushed and pulled kicking and screaming towards acceptance and some still resist. But the general trend is one of growing acceptance. An excellent example of this is acupuncture. When acupuncture first became known in the west and then began being practiced by unlicensed

practitioners (there was no formal accreditation and licensure in the early days of acupuncture in the US) it was considered quackery. Since acupuncture was not understood and did not fit the western medical model, everyone knew it was useless and at best a placebo. Some said acupuncture was simply an elaborate form of hypnosis. But slowly over the previous 4-5 decades acupuncture has moved from quackery to general acceptance, albeit some remain doubters. Acupuncture is now practiced in hospitals, pain clinics and cancer clinics and more. Acupuncture is well accepted for the treatment of pain, nausea from cancer treatment and morning sickness, is used on the battlefield for pain control and has been made available to our veterans due to its efficacy. I am not suggesting everyone is on board with acceptance of acupuncture, but acceptance is broad enough that it is moving out of the alternative medicine category and into the integrative medicine category. I suspect as more time passes acupuncture will simply be a routine part of our health care system and no longer have a label other than "medicine".

On the other hand, alternative medicine such as homeopathy has not been embraced by the vast majority of the medical community or the public. There are of course homeopathy proponents. I am not making a statement for or against homeopathy, I am simply stating its level of acceptance. Same is true with other forms of alternative medicine.

Bottom line is we have two broad categories of medicine in the western world, allopathic and alternative. At one time these were felt to be polar opposites and were considered antagonistic to each other. People were put into the position of choosing one or the other, rather than to use one style of medicine to complement the other.

Complementary Medicine

As time passed, the medical community and the public began to see there was strength in combining styles of medicine and, when done intelligently, provided a superior result. An example of this is in the area of chronic pain. Consider chronic pain that is caused by an underlying structural problem such as a ruptured disc between vertebra in the low back. This type of problem, if significant, will generally not respond well to acupuncture. This is a surgical problem. On the other hand, most cases of chronic pain are not caused by a structural problem, but by other causes. Western medicine does not treat this kind of pain well. Acupuncture does. In fact, acupuncture treats this type of pain rapidly and effectively, and based on my personal experience, about 80-90 percent of the time those suffering from this type of pain will obtain long term or permanent improvement.

Have you ever known someone that had a back problem that required surgery, but once the surgery and healing were completed, the person remained in considerable pain?

This happens frequently. In this case western medicine did what it does so well and surgically corrected the problem. But, as is often the case, pain remained. Acupuncture used after surgery will typically resolve the pain. This is an example of one style of medicine, acupuncture in this case, complementing Western medicine. Hence, the term complementary. Of course the term complementary medicine does not have the confrontational feel to it that the term alternative medicine does.

Integrative Medicine

The term integrative medicine is simply an evolution of the term complementary medicine. They mean the same thing, the term integrative simply became the most popular term. As a result, we hear of integrative medicine clinics all the time

In this book I will discuss various treatment approaches that will fall into the integrative category and some that haven't quite made it there yet, but likely will. Even if these approaches don't make it into the integrative or even mainstream category, they do have clinical efficacy and may very well prove useful to you. All but two of the approaches discussed in this book are personally known by me to be effective, but not necessarily effective for everyone. This is based on over 23 years of clinical practice at the time this book was written. Two of the approaches, EFT and Mindfulness, have not been utilized by me personally or professionally. Mindfulness has scientific validation whereas for EFT this is mostly lacking. I have included EFT because there is a considerable amount of anecdotal evidence supporting its use. Since it's free and there are no downsides, I decided to include it.

No attempt is being made to downplay any style of medicine, or a particular treatment approach. I am not an ideologue, rather I am for whatever works, in the shortest amount of time with the least amount of side effects. Those suffering from chronic pain should have a tool box of conventional and integrative approaches to treatment. These can and should be combined when appropriate, in any way that produces the desired results.

Cardiac Adrenal Pain Syndrome

Chronic pain, and in this case, specifically intractable pain, is extremely disruptive to how the body functions. In fact there is a condition called Cardiac-Adrenal-Pain Syndrome. An over-simplification of this syndrome can be stated as follows: Chronic pain results in the secretion of stress hormones from the adrenal glands which ultimately cause a cascade of physiologic events to occur which if left untreated, can lead to death. It is obvious the pain needs to be stopped. Even the less problematic chronic pain problems can result in negative repercussions due to the constant taxing of

the adrenal glands and the subsequent adrenal fatigue. Adrenal fatigue will ultimately interfere with the body's ability to deal with pain and other stressors, emotional or physical. Integrative approaches to pain treatment typically provide the most rapid approach to effectively deal with pain and as a result, to address and resolve Cardiac-Adrenal Pain Syndrome.

I invite you to explore with me several of the most useful, clinically validated approaches to pain management and pain treatment from the integrative side of the fence. It is worth noting the distinction between pain management and pain treatment. Chronic pain is typically thought of as incurable so an attempt to manage pain is made. But in some ways the psychology behind this approach is one of defeat. It's like your doctor is saying from the get go, that your pain can not be resolved. In some cases this is true, but in others, this belief is simply incorrect.

I am not attempting to be inclusive of any and all alternative and integrative approaches to pain treatment. I am discussing the ones I am most confident in. There are no doubt approaches with which I am not familiar, or approaches with clinical efficacy that I have not included.

Chapter 2 Acupuncture

Acupuncture and Oriental Medicine

Oriental medicine, also known as Asian medicine, has been around for thousands of years and has successfully treated countless scores of people. Acupuncture falls under the umbrella of Oriental Medicine or Asian Medicine or Traditional Chinese Medicine, all names, for our purposes, with essentially the same meaning. The acronym AOM is frequently used to indicate Acupuncture & Oriental Medicine. Although used to effectively treat a wide variety of health problem; in the west, AOM is most commonly used in the treatment of pain and injuries. In addition to the treatment of chronic and acute pain and injuries, acupuncture is commonly used in the treatment of gynecologic problems, asthma, digestive problems, Bell's Palsy, hypertension, infections and much more. The World Health Organization has published a list of conditions for which acupuncture has been deemed effective. The US National Institutes of Health has a position paper on acupuncture that is generally favorable. The position statement is dated as it was written in 1997. Since that times a considerable amount of additional research and clinical trials have been completed. If you are interested in more information go to <http://consensus.nih.gov/1997/1997Acupuncture107html.htm> .

AOM is far more effective at pain treatment than most, even acupuncturists, realize. I make that statement based on over 23 years of experience. Many in the public and medical community have either experienced the benefits of acupuncture for themselves or know those that have. On the other hand there are those that simply refuse to accept the possibility of any usefulness for this form of medicine. Why? One reason, and probably the primary reason, is a simple one; they have been exposed to the idea that Acupuncture is an energy medicine. There is a belief, both among acupuncturists, the medical community and the public, that acupuncture is in some way based on the idea of invisible energy pathways referred to as meridians, energy which is incorrectly referred to as qi, and other mystical concepts. This "understanding" of acupuncture makes it difficult for many to wrap their minds around and since it seems like nonsense, any benefit must therefore be placebo. There is only one problem with this idea of acupuncture being an energy medicine. It's not true. Acupuncture is based on anatomy and physiology. It is a flesh and blood medicine which is based on anatomy and physiology, just like Western medicine. This statement is backed up by the earliest texts on Chinese Medicine.

What follows is a quick look at acupuncture. I feel it would be a disservice to not take the time to explain the truth behind acupuncture. Acupuncture is an incredibly effective treatment for chronic pain and to dismiss it because of a mistaken belief in the false

energy model might be responsible for someone not making use of this beneficial treatment. For those that are interested, a deeper look at acupuncture is included in the addendum portion of this book.

A Short History of AOM Acceptance

AOM, which consists of acupuncture, herbal medicine, dietary therapies, and mechanical treatment methods such as cupping, dates back 2500 plus years. It is an eloquent medicine that has evolved over the millennia into a highly efficacious form of health care. Although the percentage of the US population using acupuncture is relatively small, the growth in utilization has been extraordinary. A time will come when those that are suffering, especially those with chronic pain, will discover the incredible effectiveness of this medicine and acupuncture will rapidly rise to be the dominant form of non-surgical pain management and treatment. Why do I say this? Because there is nothing other than acupuncture currently available that is effective 85-90 percent of the time for people that are not in need of surgical intervention. This category of pain is by far the largest.

Although the data is a bit old, in December 2008 the National Center for Complementary and Alternative Medicine (NCCAM) and the National Center for Health Statistics (part of the Center for Disease Control and Prevention) released findings from the 2007 National Health Interview Study that is put together by the US Census Bureau. This study found about 6 percent of the US population was using acupuncture. That number is almost double the number from 2002. Since that time, acceptance by the public and within the medical community, has grown exponentially. Although not specific to acupuncture, the NCCAM reported that as of 2007 approximately 38 percent of adults in the US uses Complementary & Alternative Medicine (CAM). See www.nccam.nih.gov/news/camstats/2007/camsurvey_fs1.htm for additional information. Interestingly, the use of CAM is greater in women than men and in those with higher incomes and education.

According to the NCCAM, the most common reason cited for the use of CAM in 2007 was the following: These are in order of predominance: Back pain, neck pain, joint pain, arthritis, anxiety, cholesterol, head or chest cold, other musculoskeletal complaints, migraines, insomnia. As previously mentioned, this information is not specific to AOM, but it is interesting to see the growing acceptance of CAM.

The medical community has begun embracing CAM as well, especially acupuncture. Consider for example the American College of Rheumatology endorses acupuncture for pain. In May of 2002 a survey was published in the Archives of Internal Medicine and at that time about 10 percent of physicians were using acupuncture personally. This may seem like a small amount, but it was 12 years ago this survey was published.

Acceptance has grown considerably since that time. Currently it is not uncommon to find acupuncturists working in hospitals, pain clinics, and integrative oncology clinics. Acupuncture is used on the battle field for pain control and the Veterans Administration, at least in some states, is referring their chronic pain patients for acupuncture. The growth has really been phenomenal given acupuncture was introduced to the US during the Nixon Administration and took some time to gain traction.

Is Acupuncture an Energy Medicine?

There is a lot of misinformation floating around as to how acupuncture works and what its underlying theories are. In fact acupuncture is frequently referred to as an “energy medicine”. The idea of acupuncture being an energy medicine is promoted by most acupuncturists because this is what they were taught in school. But is this correct? What is energy medicine anyway?

Knowing what acupuncture is and is not, how it works and why, is not necessary for effectiveness, but the better your understanding the more likely you are to add it to your pain treatment arsenal. With that in mind, I will introduce you to the facts so you can separate it from fiction. For a more in-depth look at acupuncture, please see the appendix.

What is energy medicine? The concept varies from person to person, but in broad terms, energy medicine believes there is an underlying life force that is present in all of us and this life force, or energy, flows through the body in predetermined pathways. When this energy is unbalanced, disease sets in. In order to treat illness, this energy is manipulated in some way to bring it back into balance. This idea is not to be considered the same as the use of energy to treat biologically defined problems. For example, the use of lasers make use of photonic energy. Homeopathy could be considered an energy medicine (although not everyone agrees), Reiki is another form of energy medicine and acupuncture is considered by many to be an energy medicine. Even Wikipedia promotes this idea of Acupuncture and Oriental Medicine being an energy medicine. Wikipedia states “According to TCM (Traditional Chinese Medicine), stimulating specific acupuncture points corrects imbalances in the flow of qi through channels known as meridians.” But is acupuncture really an energy medicine?

There may very well be a life force within us, one that must remain in balance for health and can be manipulated in such a way as to promote health and longevity, but that’s not what acupuncture is. The Huangdi Naijing is the doctrinal source for Chinese Medicine and is at least 2000 years old. In this book, actually two texts, the fundamentals of acupuncture are laid out quite specifically. From this text we learn Chinese Medicine is based on anatomical dissections and an early understanding of anatomy and physiology, not body energetics. What this means is acupuncture is a flesh and blood,

anatomically based medicine. It is not based on some invisible, intangible, mystical energy.

So where did the concept of energy medicine come from? It appears that a Frenchman named George Soulie de Morant is ground zero for the confusion. In the 1930's, Soulie de Morant translated parts of the Huangdi Neijing incorrectly, possibly due to his familiarity with Ayurveda medicine, which is in fact an energy-based medicine. His mistranslation was adopted by the west and has stuck ever since. Consider for example the following terms. Some of which you have likely heard and thought you understood.

Qi: The word qi is commonly used in Chinese Medicine to mean energy and life force. These terms, energy and life force, do not grasp the full meaning of qi as it is commonly used because there are a variety of permutations of qi, but for our purposes, it will suffice. It is worth noting that the definition of qi is contextual. The definition, or should I say the accurate definition of qi, must be for our purposes, the medical one.

The word qi as it is used in the Huangdi Neijing is correctly translated as “vital air”, “essence of air”, or “function of”, not “energy” or “life force”. For example the term “kidney qi deficiency” means the function of the kidneys is weak. “Vital air” refers to the component in air that is vital for life, and that is of course oxygen. Qi has nothing to do with invisible energy. Acupuncture is a physical medicine, just like any other physical medicine, and can be explained with anatomy and physiology. In fact the only way to explain acupuncture scientifically, is with a knowledge of neurovascular anatomy, cell biology, the neuroendocrine system, hematology and other well identified aspects of modern anatomy and physiology. Anyone using the energy model is simply misinformed as to the nature of acupuncture. That's not to say those using the energy model of acupuncture are not clinically effective, they typically are. I suppose a possible analogy might be a carpenter who is using a nail gun. If he knows how to use the nail gun to achieve results, it matters not whether he refers to the nail gun as a nail gun or believes in his heart it's a widget controlled by unseen cosmic forces. The results are the same. But for acupuncture to gain even wider acceptance within our culture, an accurate understanding of its foundational principles is necessary, and for the medicine to continue to evolve and become even more effective, we must have the ability to analyse its successes and failures.

Meridian: The term meridian came into use courtesy of Soulie de Morant when he incorrectly translated the words Jing Mai, which correctly translated refers to a vessel, as in blood vessel, and defined it as an energy vessel. Over the years there has been many attempts to identify energy meridians but none have been found. Why? The reason no cadaver dissection has ever identified a meridian is because they do not exist. By the way, later in life, Soulie de Morant admitted he mistranslated Jing Mai, but for some reason the original mistranslation has stuck.

Consider the following quote from the Huangdi Neijing: “The 12 channels (meridians) all have pulses”. Do invisible energy meridians, with invisible energy, produce pulses you can feel? Of course the answer is no. But blood vessels do. The channel system is actually blood vessels, not energy meridians. One vessel is known as the Chong Mai, also known as the Sea of Blood, and it runs down the body from the chest to the abdomen. Anatomically we have the aorta and vena cava that are the two largest vessels in the body located in the chest and abdomen. They carry a large quantity of blood. Does the Chinese medical description of the Chong Mai, or Sea of Blood, sound like an energy vessel or a blood vessel? It is very clear the channel system in the body are blood vessels. If one takes the time to look up the description of these vessels in the Huangdi Neijing they will see the channels are descriptions of major and branching blood vessels, and nerves that follow the path of the blood vessels.

Acupuncture point: The words “acupuncture point” does not exist in the Huangdi Neijing. The proper translation is node. Nodes are areas where collateral blood vessels branch off the primary longitudinal vessels and at these points there are neurovascular nodes. This gives us insight into how acupuncture works. Acupuncture works through normalization of the nervous and vascular system.

Acupuncture: The word acupuncture does not exist in the ancient texts. The original meaning translates to needle therapy.

Ok, we don't need to delve into this any deeper. If you are interested, there is a fantastic book by Donald Kendall titled *Dao of Chinese Medicine* that discusses this in detail and as previously mentioned, a little deeper look at acupuncture can be found in the addendum section of this book. The work of specialists in the field of philology such as Dr. Paul Unschuld and others, are excellent sources should you wish to better understand Chinese Medicine. Suffice it to say, acupuncture is not an energy medicine. There is nothing strange about its theories. Acupuncture, just like Western medicine, is based on anatomy and physiology. In fact, the basics of the circulatory system were known by the Chinese a very long time before Western science understood it.

Now that we have removed the sphere of mysticism from Chinese Medicine, let's look at a prominent theory as to how acupuncture treats pain.

How Does Acupuncture Work?

There are multiple theories, all of them based on how acupuncture effects our nervous and hormonal systems. The one theory that makes the most sense can be summarized as follows.

Mediates change through the nervous system

Increases circulation (blood, oxygen, nutrients) to all tissues of the body

Reduces Inflammation

Reduces pain immediately through the release of enkephalins (body's pain killers) and long term through improved circulation and healing of the tissues

Stimulates healing of tissues and organs in part through normalizing function of the nervous system and improved blood flow

The relationship between blood vessels and the nervous system as well as how to impact both with the proper use of needle therapy has been laid out as previously mentioned in the Huangdi Neijing. Modern research has provided a deeper understanding of how acupuncture works. The research of individuals such as Bruce Pomeranz, MD, PhD, from the University of Toronto, has led to an understanding of how our neuroendocrine system is regulated by acupuncture. The Biomedical Acupuncture Institute is another group that has been promoting a neuroanatomical approach to acupuncture called the Integrative Neuromuscular Acupoint System (INMAS). Research has continued into just how acupuncture works and we now have a rational, scientific explanation, or more correctly hypothesis as to how acupuncture works. I say hypothesis because this explanation is likely only a piece of the puzzle. It's a major piece, but as with all scientific discoveries it is subject to being expanded or modified in some way as additional information becomes available.

Styles of Acupuncture

It is important to note that there are a variety of acupuncture styles; for example, 5 Element, Japanese, Korean, TCM, Auricular, Scalp, Master Tung and others. There is also the broader category of distal needling and local needling. Needling is another term for inserting an acupuncture needle. Distal acupuncture does not insert needles into the injured or painful area of the body. Local acupuncture does. For example, distal acupuncture would typically place needles in the lower arms or lower legs to treat back pain; local acupuncture would place needles into the area of low back pain. It's a bit more involved than that, but in general, that's the difference. I have practiced both styles and now almost exclusively use distal acupuncture. In my opinion it is the most effective style of acupuncture for pain. All styles are efficacious in their own right, but in my opinion people respond far better using distal acupuncture. Distal acupuncture has the advantage of producing near-instantaneous pain relief. Local acupuncture most often does not.

Distal acupuncture and its various incarnations is known by several names, each with some variation, but all are very similar in their approach. Common names include the Balance Method, Distal needling, and Tung Style (named after Master Tung).

Both styles work, but there are advantages of the distal method over the local method. Advantages of the distal method for the treatment of pain include:

Extremely rapid pain reduction / elimination

Significantly greater long term success rate

Does not aggravate the area of injury

There is a saying in acupuncture that translates “Stand Pole, See Shadow”. A saying I learned from Dr. Tan. Dr. Tan introduced the Balance method (distal needling) to the US many years ago. So just what does *Stand Pole, See Shadow* mean? It means acupuncture should produce results just as quickly as standing a pole in the sun will produce a shadow. Yes, acupuncture really is that effective. Additional treatment will be needed in most cases to provide lasting results.

You can hear what some of our patients experiences have been by going to our web site at www.PremierAcupunctre.com and looking for the drop down menu named ‘What Our Patients are Saying’. Click on the video testimonials link. At the time of the writing of this book, we had only recently begun adding videos, but these videos are representative of the response most of our patients experience.

So How Does it Work?

Local Acupuncture:

When an acupuncture needle is inserted, the body responds both locally, at the site of insertion, and systemically, or throughout the body. Locally, minute trauma from the acupuncture needles results in a release of chemicals from specialized cells known as mast cells. One of the effects is to improve white blood cell activity and concentration in the area of injury, reduce inflammation, increase blood flow and promote healing of the local tissue. Systemically, changes are initiated through the nervous system, although the systemic effects are muted compared to distal acupuncture.

Distal Acupuncture:

The following explanation is intended to impart a basic understanding of how the distal method of acupuncture works. It is essentially an overview and is not intended to be a definitive explanation. For a more detailed look, you can reference the book *Dao of Chinese Medicine* by Donald Kendall.

Your nervous system contains sensory (touch, pain, etc.), motor (allows for movement) and proprioceptive (tells your brain where your body is in space and where pain is coming from) nerve fibers. Proprioceptive nerves tell our brain where neighbouring parts of our body are relative to one another and where pain is coming from. Together these afferent nerves (afferent nerves are nerves that travel from the peripheral nervous system towards the spinal cord and into the brain) provide information to our brain about our environment and injuries. This information is used by our brains to prevent further injury; for example, pulling our hand away from a hot stove and to heal injuries we might have sustained.

One plausible and certainly clinically applicable explanation of chronic pain is our nervous system stops responding appropriately to pain. When this occurs, the normal cascade of healing activity does not occur in the area of injury and pain continues unabated. In the chronic pain cycle it appears sensory nerves remain irritated and fire (send pain signals) frequently, sending information to the brain stating there is an ongoing injury. It is possible the injury never healed, it is also possible the injury healed but the sensory nerves continue to fire informing the brain of a problem that no longer exists. In response to these ongoing pain signals the brain will do its best to prevent further injury. One way this is accomplished is by inhibiting motor nerve function. Motor nerves are efferent nerve fibers that travel from the brain and spinal cord out towards the periphery and allow for movement. Inhibiting motor nerve function results in stiffness and or weakness. Additionally there appears to be a decrease in blood flow to the injured, or what the brain perceives as, injured tissue. An example of this is very common in people with low back pain. They wake up in the morning very stiff and sore, they spend anywhere from a few minutes to half hour or more moving slowly and stretching before getting out of bed then climb into the shower and allow the hot water to beat down on their sore back. After a while they can begin to stand up straight and move around. Once they begin moving around, blood flow increases and the extreme stiffness subsides, but not typically completely. Blood flow has increased but motor nerve function is commonly still being inhibited to some degree.

When an acupuncture needle is inserted, the body responds systemically by initiating changes via the nervous system. Properly placed acupuncture needles jump the neural threshold, which essentially means the needles make the nerves fire and send electrochemical signals up the afferent nerve pathways to the brain. The brain then

releases very powerful pain killers known as Enkephalins and there is an immediate decrease or elimination of pain. Enkephalins are compounds that are internally produced and bind to opioid receptors in the body. This results in pain reduction or elimination. Once this happens the body will increase blood flow to the injured tissue and stop or reduce the inhibition of motor nerves allowing the stiffness to decrease and resolve. Subsequently, our bodies begin to heal as a result of the increased blood flow to the injured or hypersensitive tissue. Concurrent with these physiologic changes, our body becomes relaxed which aids the healing process. An interesting comment made by about 15-20 percent of my patients is that they feel warmth in the injured area, warmth which is presumably due to increased blood flow into the injured body area. I suspect the number actually experiencing this sensation is much higher, they simply don't mention it.

Since the majority of chronic pain is related to pain not caused by structural problems, but rather irritation or trauma to the nerves, injured muscles, inflammation, etc., and reduced blood flow to injured tissues, acupuncture is more often than not the most direct, most rapid and most complete way to address these problems. Clinically this is borne out by the rapid, often time's near-instantaneous reduction or elimination of pain, numbness, tingling, etc. It should be pointed out that once your nervous system begins responding properly to the area of injury, and the blood flow increases, unless there is a significant underlying structural problem (major disk herniation, cancer, etc.) the tissue will most often heal and the problem will resolve. Acupuncture is not meant to be simply a symptom treatment. Acupuncture heals the problem at the root cause. There is no other treatment I am aware of that exerts as direct and as powerful an effect as acupuncture.

The elegance of acupuncture when treating pain is it will either work, or it won't and you will know this very quickly. It simply is not necessary to obtain treatment after treatment after treatment for weeks and months on end waiting for something to improve.

How Often Should Treatments Be Given?

In my opinion, a minimum of three times per week until lasting symptom resolution has occurred. At that time reduce to twice weekly to stabilize the results. Put another way, symptom resolution does not mean healing is complete. Symptom resolution occurs once there has been enough healing that your body adequately compensates and you experience little or no pain. But additional treatment is necessary to increase the opportunity for complete healing. Having said that, keep in mind that if there has not been definite improvement by the time you have completed your 4th acupuncture treatment, the odds that you will respond favorably drop off considerably. There are exceptions to this rule, but as a general guideline, you should know fairly quickly if you are progressing. If not, then find another approach listed in this book, or consider a

different acupuncturist using a different style of acupuncture.

Is there evidence supporting the use of acupuncture?

The evidence to support the efficacy of acupuncture is abundant. This includes empirical evidence, outcome based studies and even blinded trials. The gold standard of double blinded trials is very difficult if not impossible to do with acupuncture. A double blinded trial is where neither the patient nor the practitioner know who is receiving an actual treatment and who is receiving a placebo. Since acupuncture is very personalized and two people with the same complaint can receive different treatments, blinding the practitioner is not practical. I can tell you from personal experience that for pain related problems (pain unrelated to a structural problem as previously discussed), about 90 percent of people will experience rapid improvement, especially when treated using the Balance method (Distal acupuncture) and about 85-90 percent of those completing a full course of treatment will obtain long term or permanent pain relief of about 80 percent or more.

The World Health Organization has published a list of medical problems for which acupuncture has been shown beneficial. Some of these include low back pain, neck pain, headaches, and menstrual cramps. Knee pain, tennis elbow and many more. The Cleveland Clinic Center for Integrative Medicine and other major clinics utilize acupuncture.

Interestingly, research has included the use of fMRI (functional magnetic resonance imaging) to evaluate how acupuncture effects the brain. In 2005 the National Center for Complementary and Alternative Medicine sponsored a conference called Neurobiological Correlates of Acupuncture to discuss neuroimaging research in acupuncture. All very interesting research.

A study published in JAMA Internal Medicine in 2011 concluded "Acupuncture is effective for the treatment of chronic pain and is therefore a reasonable referral option." Dr. Andrew Vickers, an author of the study and a research methodologist at Sloan-Kettering Cancer Center in New York said "We think there is firm evidence supporting acupuncture for the treatment of chronic pain." In an invited commentary, Dr. Andrew Avins from Kaiser Permanente stated acupuncture provides "robust evidence...of modest benefits over usual care for patients with diverse sources of chronic pain." (Archives Internal Medicine, Volume 172 (NO 19) October 22, 2012).

Skeptics remain and studies have been completed showing little positive effect from acupuncture. I am at a loss to explain this. The results might be less than is clinically seen because those we know won't respond well, those with major structural problems, were included in the study. It is also true that some problems, especially neck and low

back pain respond extremely well and other problems not as well. Lump these together in a study and the typically stellar results seen with neck and back pain will be diluted by the results of the more intractable problems. I routinely see patients with major trauma, Traumatic Brain Injuries (TBI), and other significant causes of pain that has been intractable. Sure, some do not respond at all and some minimally, but the vast majority of these patients have gone through surgical procedures or other invasive treatments, medication and physical therapy and are still in pain. Most respond very well to acupuncture, even the skeptics.

The following quotes are from comments made by my patients and are posted on our web site. Testimonials carry no weight when it comes to proving scientific validity of a treatment. On the other hand, empirical evidence and the real life experiences of those that have tried a therapy do carry significance.

“I came here sort of as a last resort because I felt I’d tried pretty much everything else to get rid of the pain. So far, Acupuncture has been the only thing that has helped me improve. I have tried medication, Pullman Regional Hospital, WSU Health and Wellness, Physical Therapy and two different Chiropractors in Washington State.”

“This experience has been amazing. For the first time in 22 years I have not had a headache! The pain in my back has been reduced. I’ve tried Chiropractic and Massage Therapy. Both relieved the pain but did not get rid of the pain.”

“After five years of chronic pain and chronic pain management, surgery, Physical Therapy, Massage, Chiropractic treatment and multiple other treatments – Dr. Wedge suggested specific Acupuncture treatments which decreased my current pain level so dramatically! I am considering cancelling back fusion surgery because I can live with the amount of pain I currently have.”

“I have tried two different Chiropractors and neither were any help in managing the arthritis pain. I tried all the anti-inflammatory medications and arthritis medications, the side effects were too harsh. With regular (acupuncture) treatments my arthritis pain is controlled well enough for me to remain active and functional. Other treatments have not been as successful.”

“For years I suffered with mid back pain that continued up into my neck. I finally decided to see a Chiropractor to see if I could get relief. I went to several different Chiropractors in my travels, and had to continue to go at least once a week to remain pain free. I saw Dr Mike for hormone issues and he suggested I try Acupuncture for my pain. After a month I was pain free and unless I reinjured my back, I remained pain free. Thank you Dr. Mike for making life so much better! I am a firm believer in the benefits of Acupuncture.”

If you visit our web site at www.PremierAcupuncture.com you will find other patient comments and we have recently started adding video comments from our patients. The people you see and comments you read are not the exception, but their response is typical of our pain patients.

I want to point out that even though some of the previous quotes mention people's failure with chiropractic, I am not suggesting chiropractic does not work. The people it works on do not become my patients.

Adjunctive Therapies

Acupuncturists may make use of electro-acupuncture and other forms of electrotherapy such as micro current therapy, laser acupuncture, moxa, cupping, and lifestyle changes such as dietary and exercise changes.

Education

Education in Acupuncture and Oriental Medicine is at both the Masters and Doctorate level. Depending on the program of study, there may be little or no formal education in Chinese herbal medicine. The doctorate degree is relatively new. The Master's degree has been around for about 22 years as of the date this book was written. AOM schools are accredited by the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM). The ACAOM is recognized by the US Department of Education. The primary difference between the Masters and Doctorate education is specialization. States have their own licensure designations and can include L.Ac. (Licensed Acupuncturist) AP (Acupuncture Physician) EAMP (East Asian Medical Practitioner). In general, degrees with O.M. (for example M.Ac.O.M.) after them have comprehensive herbal medicine as part of their formal training

After graduating from an accredited school, most if not all states require passing the board exam offered through the NCCAOM (National Certification Commission for Acupuncture & Oriental Medicine). For reasons unknown to me, there are a few states that still do not license the practice of acupuncture.

The education of an acupuncturist typically requires a minimum of 90 college units prior to entering AOM College. Then depending on the program, the graduate level education typically lasts 3-6 years. Anatomy, physiology, pharmacology, pathology and clinical assessment are taught from both Eastern and Western perspectives. Dietary and nutritional therapy, herbal medicine (depending on the program) are also taught. There is a one year internship as well.

Pros:

Generally a very safe and highly effective treatment for pain.

Based on the style of acupuncture utilized, results may be almost instantaneous.

Cost effective.

Many insurance companies cover acupuncture.

Drug free treatment.

Aims to heal the root cause rather than simply the symptom.

Typically will know if long term or permanent improvement in chronic pain will occur within 4 treatments. A course of treatment is typically longer, but your long term response to treatment will be fairly predictable within 4 treatments.

Cons:

Can experience minor bruising at needle insertion site. This is uncommon.

Sensitivity to needles. Some are more sensitive than others and the discomfort is minimal typically. A small price to pay to potentially resolve chronic pain.

Possibility of organ puncture. This is exceedingly rare.

Muscle soreness after a treatment is uncommon but can happen. This usually lasts a short time.

Miscellaneous Thoughts:

All needles are sterile, brand new and never reused. This is an FDA regulation.

Needles are very thin and are constructed in such a way that they are much more comfortable than the needles used in an IV or injection. The experience is very different.

Acupuncture is an extremely effective tool for the treatment of pain. In some states physicians, physical therapists and chiropractors practice some version of

acupuncture, often with little training. Acupuncture is not a tool that is quickly learned and tacked onto other styles of health care, but rather is part of a comprehensive medical system. Watch for physical therapists practicing dry needling. This is simply acupuncture under a different name. The practice of dry needling is a very rudimentary form of acupuncture, one that most acupuncturists don't use much because the benefits are limited. A recent court case in Oregon ruled against the Physical Therapists who attempted to add dry needling to their scope of practice. The court ruled that dry needling is the practice of acupuncture. My suggestion is a simple one. If you want acupuncture, go to an acupuncturist. If you want an adjustment go to a chiropractor or osteopathic physician and if you want physical therapy, go to a physical therapist. To do otherwise almost assuredly guarantees you will receive less than optimal care, in my opinion anyway. In the case of acupuncture there is simply no way a physical therapist with 25 hours of training will provide you with the same safety and quality of care as someone that spent 4-6 years in school perfecting their craft. You deserve the best of care, don't settle for less.

Often times the use of chiropractic can be effectively and beneficially combined with acupuncture. At other times, in my experience anyway, adding chiropractic to acupuncture can result in a setback. If you are inclined to combine the two, then be mindful of how you feel. If the combination makes you feel better than either chiropractic or acupuncture by itself, then by all means use both. On the other hand if you feel great using acupuncture and then an adjustment makes you feel worse each time you are adjusted, then set the chiropractic aside. The reverse of this is true as well. Don't be ideologically tied to one approach. Use what works for you and set the rest aside.

As with any health care provider, provide a complete medical history, medication, supplements and allergy information.

Ask questions about your acupuncturists' qualifications, experience, and specialties.

Ask if your acupuncturist is willing to work together with other health care providers you are seeing.

Ask about your treatment plan and prognosis

Acupuncture as most are aware has grown in acceptance over the last few decades. You might find it interesting the American Academy of Pain Management, a group made up primarily of medical doctors but is open to practitioners of acupuncture, chiropractic and others, has brought in an acupuncturist at least twice to speak at their conventions.

Chapter 3 Chiropractic

Chiropractic

Although the majority of the US population does not utilize chiropractic care, most people are to some extent anyway, aware of the services offered by a chiropractor. According to the 2007 National Health Interview Survey (NHIS), about 8 percent of adults and 3 percent of children have received osteopathic manipulation. Osteopathic manipulation is practiced by osteopathic physicians, but it is essentially the same practice as chiropractic. According to the NHIS, in 2002 chiropractic was the most commonly used form of complementary care for low back pain, with the majority (66 percent) reporting they received “great benefit” from spinal manipulation.

Chiropractic care, or more specifically, some form of manipulation, by some accounts goes back to long before Christ. Maybe as far back as 2500 BC. In the late 19th century chiropractic began to take on the form of care it is known as today. As chiropractic care began to gain exposure and acceptance, its practice was aggressively rejected by the AMA, but in 1976 a chiropractor names Chester Wilk and four other chiropractors sued the AMA stating the policies and practices of the AMA were damaging to the chiropractic profession. After 14 years the US Supreme court ruled against the AMA.

Chiropractic care is most frequently used for the treatment of low back pain, neck pain and headaches, although it is used in general for musculoskeletal complaints. Adjunctive care often includes massage and other approaches to help address soft tissue (muscles, ligaments, connective tissue, etc.) problems

Chiropractic Theory

Chiropractic theory holds that a cause of disease is impairment of the nervous system as a result of dysfunction of the musculoskeletal system. In other words, an impaired nervous system will impact the body’s ability to adapt to internal and environmental stressors. As a result, disease is increasingly likely to occur. As with all systems of health care, chiropractic recognizes disease can results from a variety of other factors such as poor nutrition, chronic stress, environmental toxins, etc. A system that is out of balance, be it from nervous system impairment, other internal stressors or environmental factors, is prone to disease.

So what causes nervous system impairment? A long held theory is that subluxations, basically a misalignment of the vertebra secondary to changes in ligaments, tendons, muscles, intervertebral discs, direct trauma, etc., associated with the spine impact proper nerve function. This in turn further aggravates the soft tissue in the area, which further impacts the spine. This downward spiral results in pain, often times chronic pain. Chiropractic attempts to interrupt this downward spiral by addressing the subluxations and promoting the health of the soft tissue. Other causes of dysfunction might include direct irritation of the spinal nerve roots from direct trauma or foraminal stenosis. A stenosis is simply a narrowing of an opening. In the case of a foraminal stenosis, a spinal nerve root (a nerve that exits the spinal cord and extends into the body) is impinged due to the narrowing of the opening the nerve passes through. Spinal nerve roots are quite sensitive to pressure and this can lead to pain, muscles spasm, neurologic symptoms and more.

Treatment

Chiropractors utilize a variety of approaches to address musculoskeletal problems and to correct dysfunction secondary to subluxations. These might include spinal and extremity manipulation, what most think of when they think of a chiropractic adjustment, or the Activator technique which is a more gentle adjustment utilizing an activator. Wikipedia describes the Activator as “an alternative to manual manipulation of the spine or extremity joints...which is generally regarded as a softer chiropractic technique. If you are familiar with a spring loaded center punch you will have the basic idea of what an Activator looks and functions like. You can see an image at http://en.wikipedia.org/wiki/Activator_technique. Other common treatment modalities include massage, electrotherapy, laser therapy, and even more sophisticated treatments such as vertebral decompression.

Theory vs. Practical Application

Following is my personal take on the primary mechanism by which chiropractic works. I am not attempting to deny the subluxation theory and I am in no way suggesting is less than effective because my take is different. I am not a chiropractor, but I went to school with several and am professionally acquainted with chiropractors as well, and I have discussed this with several over the years. Chiropractors, the ones I have talked with anyway, readily admit subluxations as the primary cause of back pain is not likely the culprit the majority of the time. In fact, locating a subluxation on an x-ray is unlikely. Subluxations certainly exist and are well recognized, but they do not seem to exist with the frequency chiropractic theory suggests. With that in mind, here are my thoughts.

I have many patients that receive chiropractic care and they frequently make reference

to “throwing their back out”, or some variation on this idea and that the chiropractor needed to adjust them so their spine was once again aligned. This idea is pervasive, but essentially inaccurate. As previously discussed, there is a medical problem where one vertebra has slipped off, at least to some extent, another vertebra. This is referred to as a subluxation. The truth is this is not the cause of the vast majority of back pain or back problems. We simply are not so fragile that when we pick something up our back goes out of alignment. .

So what is chiropractic actually doing, in my opinion anyway? Injury results in damage to tissues in the involved area. This may result in inflammation, spasm, muscle tightness, altered blood flow into and out of the injured tissue and restricted movement. Restricted movement of a joint means the joint is hypomobile. A chiropractic adjustment forces the joint into motion, thereby reducing the hypomobility and thus increases blood flow to the damaged area. You might find it interesting that the sound a person hears when an adjustment is made is not due to the movement of bone. The sound is the result of expanding gas bubbles (nitrogen) in the joint capsule as a result of the negative pressure created when the joints are separated (moved) during an adjustment.

It is important to understand I am not suggesting nerve root impingement does not occur, often times it does, but rather than being related to a subluxation, it is related to muscle spasm secondary to an injury. Once a chiropractic adjustment is made, and if needed adjunctive therapies utilized, the muscle spasm stops, blood flow increases, joint mobility improves and normal function returns. I have many patients that receive dramatic improvement at the time of an adjustment. I am not questioning the efficacy of a chiropractic adjustment here, rather I am suggesting the mechanism by which chiropractic works is less related to subluxation and more to soft tissue injury. Having said that, I have seen many people over the years that experience migraines and a cervical (neck) adjustment will frequently instantly resolve the headache. I suspect there is to some degree a subluxation involved in these cases.

Because chiropractic adjustments do not do much for the soft tissue injury, at least not directly, massage, ultrasound, heat application, laser, electrotherapy etc., are commonly utilized.

Side Effects & Complications

The most common side effect of chiropractic care is post treatment soreness. More significant problems such as a stroke after neck manipulation has been reported but this is extremely rare. It is worth pointing out that cause and effect between chiropractic adjustments and stroke as a result of damage to the vertebral artery is questionable. One study out of Ontario Canada in 2009 looking at 818 cases of stroke due to damage

to the vertebral artery found an association between visits to a health care provider and strokes, but this association was present whether the person saw a chiropractor or a physician. Other possible side effects include associations between chiropractic care and aggravation of intervertebral disc problems and pinched nerves, but cause and effect has not been established. Other problems I have been made aware of by my patients that have utilized chiropractic care include aggravation of back pain, although this is typically temporary, it can last long term, and an increase in headaches, again, an infrequent problem. In general most are happy with their chiropractic experience, but it certainly is not beneficial for everyone. Like any form of health care, if it is of benefit to you, then use it to regain your health, but if after a reasonable effort has been made to obtain chiropractic care at the recommended frequency and there is no improvement in a relatively short period of time, say 5-10 treatments, then find another approach. This is not to say you will have your problem resolved in 5-10 adjustments, but I do believe if you cannot acknowledge to yourself that you are indeed getting better within the 10 treatment range, then consider another form of treatment and discuss this with your chiropractor.

Is there research supporting the practice of Chiropractic?

There is an abundance of research attesting to the benefits of chiropractic. There are of course studies that show little or no efficacy as well, but the preponderance of evidence show benefit. That does not imply chiropractic helps everyone, it certainly does not, but it is a viable approach to consider.

The following quotes were taken from the American Chiropractic Association website, ACAtoday.org

For Acute and Chronic Pain

“Many treatments are available for low back pain. Often exercises and physical therapy can help. Some people benefit from chiropractic therapy or acupuncture.
-- Goodman et al. (2013), *Journal of the American Medical Association*

“[Chiropractic Manipulative Therapy] in conjunction with [standard medical care] offers a significant advantage for decreasing pain and improving physical functioning when compared with only standard care, for men and women between 18 and 35 years of age with acute low back pain.”-- Goertz et al. (2013), *Spine*

In a Randomized controlled trial, 183 patients with neck pain were randomly allocated to manual therapy (spinal mobilization), physiotherapy (mainly exercise) or general practitioner care (counseling, education and drugs) in a 52-

week study. The clinical outcomes measures showed that manual therapy resulted in faster recovery than physiotherapy and general practitioner care. Moreover, total costs of the manual therapy-treated patients were about one-third of the costs of physiotherapy or general practitioner care.-- *Korthals-de Bos et al (2003), British Medical Journal*

“Patients with chronic low-back pain treated by chiropractors showed greater improvement and satisfaction at one month than patients treated by family physicians. Satisfaction scores were higher for chiropractic patients. A higher proportion of chiropractic patients (56 percent vs. 13 percent) reported that their low-back pain was better or much better, whereas nearly one-third of medical patients reported their low-back pain was worse or much worse.” *Nyiendo et al (2000), Journal of Manipulative and Physiological Therapeutics*

“In our randomized, controlled trial, we compared the effectiveness of manual therapy, physical therapy, and continued care by a general practitioner in patients with nonspecific neck pain. The success rate at seven weeks was twice as high for the manual therapy group (68.3 percent) as for the continued care group (general practitioner). Manual therapy scored better than physical therapy on all outcome measures. Patients receiving manual therapy had fewer absences from work than patients receiving physical therapy or continued care, and manual therapy and physical therapy each resulted in statistically significant less analgesic use than continued care.”– *Hoving et al (2002), Annals of Internal Medicine*

In a study funded by NIH’s National Center for Complementary and Alternative Medicine to test the effectiveness of different approaches for treating mechanical neck pain, 272 participants were divided into three groups that received either spinal manipulative therapy (SMT) from a doctor of chiropractic (DC), pain medication (over-the-counter pain relievers, narcotics and muscle relaxants) or exercise recommendations. After 12 weeks, about 57 percent of those who met with DCs and 48 percent who exercised reported at least a 75 percent reduction in pain, compared to 33 percent of the people in the medication group. After one year, approximately 53 percent of the drug-free groups continued to report at least a 75 percent reduction in pain; compared to just 38 percent pain reduction among those who took medication.-- *Bronfort et al. (2012), Annals of Internal Medicine.*

What is a Chiropractors Education?

Education: Chiropractic is a doctorate level profession and the education involves the study of anatomy, physiology, pathology, nutrition, physical examination, chiropractic

theory, principles and practice, imaging, such as x-ray and other diagnostic techniques. Chiropractic colleges are accredited by the Council on Chiropractic Education. Chiropractic is a licensed profession with licensing and scope of practice (what a chiropractor is allowed and not allowed to do) varying from state to state.

Pros:

- Sometimes rapid pain relief
- Restoration of normal function
- Low risk of physical harm
- Drug free pain control
- Cost effective over traditional medical care
- Frequently covered by insurance

Cons:

Patients are frequently asked to continue adjustments for many months even in the absence of improvement. This is one comment I have heard repeatedly from my patients regarding their chiropractic experience. My advice is if you are improving with treatment, then continue, if not, and you have given it a fair trial, then stop. This is just as true with chiropractic, acupuncture, physical therapy or medicine in general.

Possibly soreness following an adjustment. This is really a non-issue as it is a small price to pay for possible resolution of pain.

Unlikely, but possible stroke following neck adjustment, pinched nerves and aggravation of disc problems. See discussion above.

Possibly long term aggravation of the complaint being treated.

May not be covered by insurance.

Miscellaneous thoughts:

As with any health care provider, provide a complete medical history, medication, supplements and allergy information.

Ask questions about your chiropractor's qualifications, experience, specialties.

Ask if your chiropractor is willing to work together with other health care providers you are seeing.

Ask about your treatment plan and prognosis

I am not a fan of x-rays unless they are absolutely needed. Damage from ionizing radiation is cumulative. Avoid x-rays unless there is good medical reason for one. Simple routine screening in my mind is not a good reason.

Chapter 4 Hypnosis

Hypnosis

"The greatest discovery of any generation is that human beings can alter their lives by altering the attitudes of their minds." ~Albert Schweitzer

Probably everyone has heard of hypnosis, but few really know what it is and in what situations it can be used for. Ask someone about hypnosis and they will often times think of a stage hypnosis show seemingly making people do crazy things, or they will have heard about hypnosis for smoking cessation or weight loss. But few are aware that hypnosis has considerable research supporting its use in the management of pain.

A major work titled *Hypnosis in the Relief of Pain* by Ernest and Josephine Hilgard discusses the use of hypnosis in great detail. The book was originally copyrighted in 1975 and then updated multiple times. There are of course other excellent books on the use of hypnosis and pain management.

Over the years new techniques and a deeper understanding of how hypnosis aids in the management of pain have emerged. There are now quite a few excellent hypnotic techniques for pain management. To name just a small handful, there are distraction techniques, age regression, displacement, glove anesthesia and others. Glove anesthesia is an excellent technique I have used with patients of mine. The name comes from the feeling of numbness that is induced in your hand that involves an area similar to the shape of a glove. Why numb your hand? This is only the first half of the technique, the second half is being taught how to transfer this numbness to an area on your body that is painful. In addition to specific techniques for pain control, the act of entering a relaxed state, a state that is commonly, but not necessarily, associated with hypnosis, has a profound impact on your sense of well-being and is in fact an effective way to reduce pain by itself. What our minds are capable of is truly remarkable. The variety of techniques and their variations for using hypnotic suggestion for pain management is extensive, but suffice it to say hypnosis is a useful tool in pain control.

Although using self-hypnosis recordings is an option, working with a hypnotherapist knowledgeable in hypnotic pain control is the preferred method. You will be taught the skills of hypnotic pain control then you can practice on your own until you have developed the skills necessary to use your mind to control pain.

Hypnosis is a very misunderstood state and one that is irrationally feared. Lack of

knowledge of just what hypnosis is, has resulted in many that could benefit from this naturally occurring mental state missing out on a very useful tool.

Does it Really Work?

There is significant research on the use of hypnosis in the treatment or management of chronic pain. The previously mentioned book *Hypnosis in the Relief of Pain* is an excellent resource.

There is an article published in *the International Journal of Clinical and Experimental Hypnosis* that reviews thirteen studies using hypnosis for pain control. The article states

“the findings indicate that hypnosis interventions consistently produce significant decreases in pain associated with a variety of chronic pain problems. Also, hypnosis was generally found to be more effective than non-hypnotic interventions such as attention, Physical Therapy, and education.” The article can currently be found at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2752362/>

What is Hypnosis

Just what is hypnosis? Many lay people claim to understand just what hypnosis is, but their understanding is typically distorted as a result of stage hypnotists, movies, stories of Mesmerism and a myriad of other questionable sources. If you ask professionals involved with the clinical practice of hypnosis you will likely receive many different answers, but there is typically a common thread that runs through each definition, tying them together. I will share a few definitions, then tie them together into a workable definition which will serve our purposes.

The only thing which seems to characterize hypnosis as such and which gives any justification for the practice of calling it a “state” is its generalized hyper suggestibility. (Hull; Hypnosis & Suggestibility)

Hypnosis is a state of consciousness –not unconsciousness or sleep– a state of consciousness or awareness in which there is a marked receptiveness to ideas and understandings and an increased willingness to respond either positively or negatively to those ideas. Dr. Milton Erickson

Hypnosis is a state of mind in which the critical faculty of the human is bypassed, and selective thinking established. (Dave Elman, Hypnotherapy)

For our purposes, we will use the following definition. The definition is mine, but is actually a conflation of different definitions and functional constructs. This is a functional definition, one that will provide us a way to unpack just what hypnosis is from a practical point of view. Although functionally accurate, this definition is not intended to be an academic definition.

Hypnosis is a state of increased suggestibility and heightened awareness brought about by the distraction of the conscious mind which allows permissive access to the subconscious mind to bring about desired change.

An important part of this definition is that it is a permissive mental state. Another way to state this is to say that hypnosis is a consent state. Nothing is being done to you, you are simply allowing someone, or yourself, to make suggestions that help bring about desired change. If you don't like the suggestion, it will not be acted on.

There are also different forms of hypnosis. For example, waking hypnosis which is a different state than what we might refer to as clinical hypnosis. Both have the same desired outcome for change, the approach is different. For our purposes, these distinctions, as well as concepts of depth of hypnosis are not important so I will take a more simplified approach. If you choose to look into this further there are excellent books available.

There are several key words in my definition which addresses common concerns expressed by those unfamiliar with hypnosis. Commonly expressed concerns include the following.

Fear of the trance state and not coming out of trance

Fear of revealing personal information

Fear of manipulation

Because fear is the most common cause of not entering a hypnotic state, it's important to address each one of these unfounded concerns. If you consult with a hypnotherapist they will likely discuss this information with you prior to the therapeutic process beginning. I am discussing this in depth now in case you are discounting hypnosis as a viable pain management technique due to fear or other misunderstanding of the mental state.

Fear of trance and not coming out of trance:

The trance state, an unfortunate and inaccurate word, is actually a normal state you go in and out of all day long. Using the state for self-improvement is simply utilizing a God given ability of your mind to accelerate desired change. How many times have you read a book and become absorbed with the story? Or driven down the highway thinking about something else (not a recommended practice) and noticed you had traveled several miles and did not even realize you had done so? These are both hypnotic states. Or put another way, you were in a trance state. The hypnotic induction is simply a way to induce the state as part of a process for change. There is nothing more mysterious about it.

I remember reading an article on the internet about a stage hypnotist that apparently fainted during his show. The person writing the article said that fortunately he was able to regain consciousness and bring those participating in the show, those that had been hypnotized, out of the state. Wake them up so to speak. It's misinformation like this that results in the general public fearing hypnosis. At any time during the show, any of the participants could simply have stopped participating and walked off the stage. The writer's assessment was simply silly and uninformed.

Keep in mind hypnosis is a natural state, one that is also a consent state. What do I mean? You enter the state by consent, your consent. If you choose not to enter the state, you won't, and if at some point during hypnosis you choose to end the experience, you simply end the process. That's all there is to it. You are always fully aware of what is occurring and what is being said. Oftentimes you will not even know you entered the state. More on this later.

Fear of Reveling Personal Information

Ah, skeletons in the closet. One of our greatest concerns is allowing someone to look into our closet. But fear not, since hypnosis is a consent state, a state in which you actually have a heightened sense of awareness, you will never tell anyone something you don't want to tell them. You will never accept a suggestion that you do not wish to accept. Let's go back to the hypnotic state induced while becoming engrossed in a great book. If I asked you to go to an ATM machine and withdraw all your money and give it to me, would you? Of course not. The same holds true when hypnosis is used for self-improvement or pain management. Anyone that tells you otherwise is misinformed.

Fear of Manipulation

As you have probably already figured out from the information previously provided, this is not a concern. Hypnosis is a consent state. No one can make you do anything you don't want to do. The question that invariably arises when I point this out is this; why do people participating in a stage hypnotists' show bark like a dog, do a strip tease, or find they can no longer put their socks on or count to 10? Excellent question. Sure appears as though the hypnotist is manipulating their behavior. Remember, hypnosis is a consent state. Why are the people that are on stage participating in the show in the first place? Because they want to. They are giving their consent to be part of the evening's entertainment. If a suggestion was made such as take your clothes off and dance in front of the audience, this would never happen unless of course the participant had a bit of exhibitionist in them and they wanted to do so. Bottom line is simple. They act the way they do because they want to.

Hypnosis, a simple working explanation

Now that you understand what hypnosis is and isn't, I would like to provide a simple, practical model of what is occurring. This is simply a model to enhance understanding and is not intended to be an academic explanation.

Your conscious mind is the part of the brain that assesses your environment, makes judgments and decisions and also acts as a guard to your subconscious mind, filtering what is allowed to reach your subconscious. We call this the critical factor.

The subconscious mind is where your habits and belief systems reside. Sort of like the operating system of your home computer. Your subconscious runs in the background but has profound influence on your life, and how you interact with your environment and those around you. When you are young, your conscious mind, your critical factor, is not developed enough to pass judgment on what you are being told. This is when many of your very basic, very fundamental beliefs are formed. If at an early age you are exposed to racist people, or you are told it is your destiny to always be mediocre in life because no one in your family history has ever achieved greatness or even a modicum of success, then these limiting beliefs will saturate your subconscious and become an integral part of your belief system. As we age we continue to program our subconscious by the way we talk to ourselves or the habits we develop. For example, if you are always positive, you have a vision for your life that sees you as being extraordinary and the metaphor you use to describe life is one that empowers you, such as life is a dance and I love to dance, then this will define who you are and what you become in life. On the other hand if you see life as a constant struggle, one that is rigged in favor of only a select few, and is a battle you can't win, then this too will define your life. It is extremely important to filter what you allow into your subconscious so that

you can define your life the way you desire.

If you are a pilot, you have two options when flying, you can either allow the airplane to fly you, which is a dangerous approach for sure, or you can fly the airplane. It's a matter of who is in control. The same is true with your subconscious. Do you control your subconscious and the influences it has on your life, or does it control you? Program your subconscious for greatness and that's just what you will achieve. Program it with self-imposed limitations and limitations will guide your future.

One way to achieve change is through hypnosis and hypnosis in our model is simply distracting the conscious mind, or more specifically the critical factor of our mind, so that we have access to our subconscious. If we desire change, the suggestions made directly to the subconscious will be accepted and change will occur. That's it in a very small nutshell. But don't allow the beauty of its simplicity to fool you. Kahlil Gibran in his book *The Prophet*, said it was a mistake to judge the power of the ocean by the frailty of its foam. I took the quote out of context, but it is none the less an excellent way to think about the intrinsic beauty and simplicity of hypnosis and yet understand its incredible potential.

Can everyone be hypnotized?

This is a debated issue and there are various approaches to accessing a person's ability to be hypnotized. There are without a doubt varying degrees of responsiveness to hypnotic suggestion, and to the depth of hypnosis. But it seems that everyone with the ability to concentrate, where their mind is not currently being altered by the influence of drugs, can reach some level of hypnosis. Contrary to what some have come to believe, it is not the weak minded that respond well to hypnosis, it's actually the more intelligent that do, at least as a general rule.

In general, at least to a point, the deeper the hypnotic state, the better the suggestibility, and this is especially true for pain management. But even a light depth of hypnosis can allow for a significant decrease in pain.

I believe the more important question is not can everyone be hypnotized, but rather what keeps someone from being hypnotized. There are a variety of reasons, fear of the experience being number one. This is why this topic was discussed previously. Simply not wanting to enter the state for whatever reason is of course a game stopper. Hypnosis is a consent state. If you don't consent, there will be no hypnosis. There is a truism that goes "all hypnosis is self-hypnosis". This simply means you are allowing the process to occur. No one is doing something to you, but rather the therapist or hypnotist is simply acting as a guide. If you don't wish to go where the guide is leading you, you simply won't go.

What does hypnosis feel like?

This is a very common question and the answer may surprise you. You may never even know when you entered the state. You might feel relaxed, sometimes profoundly relaxed, but that's about it. You will hear everything being said, you will be aware of what is occurring around you, and in fact you may have a heightened awareness. Hypnosis is not a mysterious or magical state; it's simply one of several normally occurring states in a healthy human being.

It is fairly common to ask someone that just finished a hypnosis session if they were hypnotized and commonly the answer is no. But your body will show signs you have entered the state and by certain "tests" built into the hypnotic session.

Self-Hypnosis

Besides being a very effective modality for pain management and self-improvement in general, hypnosis is not dependent on having a therapist to work with. Once you have learned the skill, which is best taught with the help of a qualified therapist, you should be instructed in the use of self-hypnosis so you can utilize your new found skill anywhere and at any time you desire. If this is not discussed by the therapist, then ask.

Summary

Hypnosis is a safe and effective method of pain management. In my opinion, hypnosis is more a pain management technique, then a method of resolving the underlying cause of the pain. Other methods such as acupuncture for example, have the ability to permanently resolve chronic pain. Think of hypnosis as another tool in your pain management tool box. One benefit of this particular tool is it is a skill you can learn under the guidance of a skilled therapist and then utilize as needed on your own. A bit of self-empowerment. Do keep in mind hypnosis and hypnotic pain management are a learned state and it takes practice and more practice. But it's worth it, the reward can be a more comfortable life for you.

Education / Training

Be careful here. Hypnosis is not a licensed profession in most states. Some states require hypnosis to be practiced by a licensed health professional and some don't. Just because someone is a licensed health professional, even if they are a mental health

practitioner, does not mean they are trained in hypnosis. On the other side of the spectrum are the 40 hour courses in hypnosis that leads to certification (a non-defined, non-regulated term in hypnotherapy). These courses typically teach you the skill of inducing the hypnotic state, cover the nature of suggestion and the subconscious and provide a basic outline on how to formulate suggestion. Those going through these programs can be very poorly trained or they can be quite good. They are not necessarily mental health therapists, but they could be. They have a skill and can be quite helpful in habit control such as smoking, weight loss, sports improvement and other non mental health related self-improvement programs. A doctoral program was established many years ago by Al Krasner, PhD., in Sothern California. The program was State-approved by the Bureau for Private Postsecondary Vocational Education (BPPVE). Degree granting authority was through the Office of the Superintendent of Public Instruction under the provisions of the Education Code of the State of California. This program was the only hypnotherapy doctoral program and was modeled to some extent after the PsyD, psychology degree in that it emphasized clinical application rather than research. The program was unaccredited, but provided an excellent breadth and depth to training in Clinical hypnosis.

Bottom line is to ask about the experience, specifically experience in hypnotherapy for pain management, of the person you will be working with. Formal education is good, but consider one of the best known hypnotherapists in the country in the 1950's was Dave Elman. He traveled extensively teaching physicians and dentists medical hypnotherapy. He produced a book title *Hypnotherapy* which is an outstanding text. The Elman approach to hypnotic induction was a breakthrough and his influence is still felt to this day. His background contained no formal education in hypnosis, yet according to Wikipedia, *"the first heart operation using hypnosis rather than normal anesthesia was performed by his students with Dave Elman in the operating room as coach."* Mr. Elman's text *Hypnotherapy* and class recordings are considered classics in the field of medical hypnosis. I can attest to the importance of these as I own both the text and class recordings.

At one time there was a board certification in hypnotic anesthesiology that had a substantial following including physicians, psychologists, and non-health care provider hypnotherapists. Their name was National Board for Hypnotherapy and Hypnotic Anesthesiology. I received board certification through them. The death of the founder, RD Longacre brought the board to an end.

Pros

Powerful and clinically proven tool for pain management

Can be quickly taught self-hypnosis to allow for pain control when and where you

need it

Non Invasive. There is no downside to hypnosis

Cons

Typically does not address the cause of chronic pain unless it is stress-related.

Miscellaneous thoughts

Hypnosis in the area of pain management should be used with care. For example, let's assume someone is well trained at dealing with their chronic pain with hypnosis and then they slip and fall injuring their low back. The pain from this injury can typically be reduced or eliminated, but if there is underlying pathology that can be aggravated by use, then hypnotically eliminating the pain can result in a detrimental outcome. Or consider someone with migraines. Hypnosis is excellent for the management of migraines, but consider the ramification of blocking the pain when the underlying cause is a brain tumor that is not being addressed. Prior to utilizing hypnotic pain control, be certain to check with your physician

Chapter 5 Pain Neutralization Technique

Pain Neutralization Technique

Pain Neutralization Technique (PNT) is not something you will (currently) read about in a medical book, it is not a well-known and utilized approach to pain. I do believe you will find as I have, that PNT has much to offer in dealing with musculoskeletal pain and dysfunction. I have used this technique with my patients and have found it to be surprisingly effective. The technique has a considerable following by physicians, chiropractors, acupuncturists and others.

The technique was founded by Stephen Kaufman, DC and is quite simple in its theory and application. PNT is frequently used to treat trigger points, and is quite effective. Prior to discussing how the technique is applied, let's answer the question, what is a trigger point.

A trigger point is a rather nasty area in the muscle that is hyperirritable. When pressed, there is a typical pain radiation pattern. For example, have you ever experienced a painful tight muscle that when you located just the right spot and pushed there would be substantial tenderness and pain radiating say up your neck and into your head? That is a trigger point. Trigger points are the cause of significant suffering. There is a monumental work published by Dr. Janet Travell that describes trigger points and how to treat them. Dr. Travell, was the person who coined the word "trigger point". Her work has been foundational learning for those dealing with myofascial problems. Myofascial refers to muscles and fascia. Fascia is connective tissue that surrounds muscles, groups of muscles and other structures.

It is worth noting that trigger points can cause more wide spread chronic pain. In other words, someone could be suffering from chronic neck pain for which they have received other treatments or pain medication, but the cause is really a trigger point located in the upper back. Resolve the trigger point and the neck pain will resolve.

In addition to trigger points, PNT is effective at treating other musculoskeletal problems as well. For example frozen shoulders, limited range of motion in the neck and a wide variety of other problems.

What is treatment like?

Treatment is simple, generally not uncomfortable and relief is rapid, typically occurring

within seconds of treating the correct muscle and area. Multiple treatments are usually required for lasting results.

Treatment involves applying pressure in the proper direction based on the trajectory of the muscle fibers being treated and the correct use of agonist and antagonist muscles. This is the technique at its core, but can become more involved. An agonist muscle is the muscle responsible for the primary movement being undertaken. For example bending your arm requires the contraction of the bicep muscle. The bicep in this example is the agonist muscle. Antagonist muscles are muscles that work opposite to the agonist muscles. Returning to our bicep example, the antagonist is the triceps.

If you were experiencing pain in your bicep, one approach using PNT would be to either treat the bicep itself, or the antagonist muscle, in this case, the triceps. There are other approaches as well using PNT but this is the fundamental principle.

I use to frequently combine acupuncture with PNT when treating pain patients, but after I began using the distal form of acupuncture which has been previously described, the need for PNT has decreased dramatically. PNT is a very useful standalone treatment or when used with other treatment modalities.

Robert Rowen, MD had this to say about PNT in his newsletter *Second Opinion*:

“The majority got rapid relief, even with very long term chronic problems. It was absolutely incredible! I’ve devoted an issue of my newsletter to his techniques”

Treatment videos can be found on the internet. One example with Dr. Kaufman treating shoulder pain can be found (at least at the time of this writing) at <https://search.yahoo.com/search?p=pain+neutralization+technique&ei=UTF-8&fr=moz35>

Education

Those practicing PNT should be a licensed health care provider such as a physician, acupuncturist, chiropractor, etc. After all, they are treating you for a health-related problem. Training is either through onsite training or DVD’s. The procedure is simple if you understand and know the involved anatomy. There are multiple levels to PNT training from basic to advanced, with each level adding to the practitioner’s skill set.

Pros:

Non invasive

Rapid pain relief

Essentially pain free treatment

PNT is the most impressive manual technique I have seen

Cons:

None

Chapter 6 Biofeedback

Biofeedback

Biofeedback is a process by which you can gain control over certain body states that are typically considered involuntary. In the case of chronic pain, the ability to relax your body and/or specific muscle groups can be profoundly beneficial.

Biofeedback uses equipment that is connected to your body that provides information on physiologic changes. For example: heart rate, skin temperature, sweating, breathing rate, mental relaxation. A lie detector is simply a biofeedback device. For example, consider someone with poor circulation in their fingers. Biofeedback equipment attached to the fingers would provide information as to temperature changes. Then, through the process of learning to control physiologic function, a person can learn to increase blood flow to the fingers. The biofeedback equipment would then indicate increasing temperature. With some practice, a person is able to learn to control blood flow into their fingers. If you are old enough to remember the mood ring craze from the 1970's, you will recognize this as a form of biofeedback. When the ring was black your finger was cold, when you relaxed, maybe visualized increased blood flow to your finger, the mood ring would turn to warmer colors. Computers have resulted in some fun ways to learn and improve biofeedback skills. If you should try biofeedback, you should know it is a learned skill, not typically one that you will be good at on your first try.

Biofeedback should not be considered a questionable approach to pain management. It is widely utilized and even major institutions such as University of California San Francisco Medical Center utilize biofeedback for pain and other health problems.

Biofeedback and Chronic Pain

Chronic pain has multiple components of which many are subjective and environmental. For example, fear is subjective but impacts pain intensity. Have you ever experienced an injury that you thought was substantial and you were experiencing significant pain? Then your physician told you the injury was much less significant than you believed it to be and the intensity of pain rapidly decreased? This is very common. We see this in children all the time when they hurt themselves and run crying to their mom or dad and they give their child a hug and reassure them there is no problem. The child goes from crying and screaming to back outside playing almost immediately. Stress is another component of chronic pain. Stress makes us less tolerant of pain. Our mood also

impacts pain. Consider for example if you were in a foul mood and were walking down the beach, the weather is cold, it's windy, you just had a major fight with your spouse and then your bare feet steps on a sharp shell. The pain you feel will be very different than if you had just become engaged, and you were walking down the beach with your new fiancé, the weather is warm, you can smell the ocean mist and seagulls can be heard playing out over the ocean. In the first scenario the pain is much more problematic than in the second scenario. Muscle tension and a number of other variables impact pain perception.

Consider for example you have chronic low back pain. The pain results in a cascade of events.

Initial injury that does not heal

Chronic pain sets in

Chronic pain taxes your nervous and hormonal systems that makes adapting to and dealing with chronic pain more difficult.

Muscles remain tight which reduces blood flow into and out of the involved muscles. This results in pain and inhibits the body's ability to heal. In severe chronic pain situations it's possible to develop Cardiac-Adrenal Pain Syndrome which due to the physiologic effects can result in death.

Chronic pain makes you less tolerant of things going on in your environment and leads to short temper and tension between you and your family. Maybe you are unable to take care of projects around the house, or are unable to work so financial stress enters the picture.

These problems and others set up a cycle of pain that further reinforces this cycle. All of this and more occurs in many with chronic pain. Interrupting this cycle at any point will reduce pain, often times dramatically. This is why biofeedback is beneficial. It gives the person the ability to interrupt this cycle and thereby reduce pain.

Consider for example simply learning to relax the muscles in the involved painful area, say in the low back. This initiates another series of events. Consider the following possible outcome.

Muscles relax and blood flow through the injured tissue increases.

Pain begins to decrease.

Nervous and hormonal systems become less taxed which further relaxes the body.

Heart rate and blood pressure decrease

Less pain and more relaxation improves mood and improves life circumstances.

Once this series of events begins, it too reinforces itself, but in a positive way. It is worth noting that this is also one of the mechanisms of action for hypnosis.

I consider biofeedback a palliative approach to pain. What I mean is biofeedback is an ongoing process to allow a person to manage their pain rather than resolve the underlying cause. Acupuncture and Chiropractic have the ability to treat the underlying cause thereby permanently resolving the problem. At least that's the goal. This goal is not always obtainable. Having said that, if the chronic pain problem is simply a blood flow and muscle tension issue, which is actually somewhat common, biofeedback may very well resolve the problem. As with any of the approaches discussed in this book, combining biofeedback with another type of treatment could be very beneficial.

Common uses for biofeedback in pain related problems include low back pain, fibromyalgia, TMJ, neck pain, arthritis and headaches. In fact according to WebMD, headaches are one of the best studied biofeedback uses. This is not to suggest biofeedback would not be useful for other types of pain such as cancer pain, or any other type of pain. With no downside and considerable upside benefits, there is no reason not to work with this technique and see what you can accomplish.

Education

Biofeedback can be self-taught by purchasing your own equipment. This can range from very inexpensive to expensive. Mental health therapists, psychologists and others might utilize biofeedback. Ask them about their experience with biofeedback in general and in pain management particularly.

Pros:

Non invasive

No possibility of injury

Can be self-taught

Teaches how to use one's mind to control physiology

Cons

Typically not curative

Chapter 7 Emotional Freedom Technique

Emotional Freedom Technique (EFT)

Note: It is with some consternation that I include the topic of EFT. Why? First, this book is about therapeutic approaches with proven efficacy. EFT as far as I am aware does not have the kind of proof of efficacy I am comfortable with. No doubt some would disagree with me. I am aware of EFT and how it is utilized and the underlying theory as to how it works. The underpinnings of how it works is doubtful in my mind. Having said that, it has become very popular in certain circles with apparent beneficial effects in a variety of psychological disorders such as phobias, PTSD (Post Traumatic Stress Syndrome), and in many other areas. To a lesser degree, some are using it for pain control and make claims as to its effectiveness. I have no personal experiences with EFT for pain. I share this information so you can do further research if desired.

EFT it is not without its ardent fans and it is growing in popularity. At the same time, EFT is strongly opposed by many, referring to it as pseudoscience or worse. EFT is used for a variety of issues, from psychological to physical. Its use in pain management is what we are interested in, but you might find it useful for other concerns or difficulties you might be experiencing. I am bringing your attention to the existence of EFT because it is evident that it does produce positive change in many of those who use it. Is it placebo? Is it a legitimate therapy whose mechanism of action is simply not understood? I don't know the answer to those questions. One thing I have noticed is a therapy might produce measurable change, but skeptics are so busy attacking the purported mechanism of action, that they miss the therapeutic benefits. Fact or fiction, placebo or validated psychological and physiologic change, that's for you to decide.

History of EFT

EFT is the outgrowth of Thought Field Therapy (TFT). TFT was the brain child of Dr. Roger Callahan, a clinical psychologist. TFT is a therapy that involves tapping specific acupuncture points for a specific problem. Different problems required different tapping sequences. This relatively complex approach was simplified and in its simpler form is called EFT.

Procedure

The procedure, or therapeutic application of EFT is fairly simple and straight forward,

but can become more complex when dealing with problems that are layered. For example, there may be multiple aspects to a phobia and unless each one of these components is addressed, the therapy will be less effective. Having said that, the basics of EFT are as follows

Think about what it is you wish to change, for example fear of heights

While thinking about and at the same time developing an emotional response to the fear, you begin tapping on specific acupuncture points

The process can be repeated as needed to resolve the phobia

That's the basics of EFT. An abundance of information is available on the internet. For those that are interested, there is a CD/DVD set from Nightingale Conant titled "*EFT – The New Technology for Immediate Healing and Vitality*" by Lee Pulos, Ph.D. I found the material quite interesting. The web site is www.nightingale.com. Another source is www.EFTUniverse.

Pros:

Essentially no cost. All the information you need is available on the internet for free

No down side. As long as you are not putting off the need for immediate medical intervention, giving EFT a try has no downside.

Cons:

None

Chapter 8 Mindfulness

Mindfulness

Contributed by Shelly Jacobs, MA, LPA

Physical Pain is a Mental Nightmare

After exhausting all medical options and interventions, you may have been told that you will have to learn to "live with" the pain. But what does this mean? What is one supposed to *learn* to help cope with a life that may be permanently altered by pain? Unfortunately, most doctors don't have an answer to this question and one is left struggling to figure it out alone.

When we are in pain it is natural for the pain to become the focal point of our experience. That's our biology. We are designed to pay attention to anything that may threaten our survival. Pain signals from an injury tell us to be careful with that body part as it is in a vulnerable state. Holding our attention to the injured body part keeps us prepared and ready to protect our body from further harm if needed. Unfortunately when pain messages are repeated over time, sent again and again from the body part that was hurt or injured, the nerves become extremely sensitive. Now even minor touch or movement, which may not have previously been perceived as hurting, becomes painful. In response, our natural tendency is to tense our muscles which further amplifies the pain sensations. Adding to this, as our attention narrows and obsessively focuses on pain, we often experience very upsetting emotional reactions such as fear and anxiety, frustration and anger. The result: now there is both physical pain as well as emotional pain.

Although people like to think they are separate, the truth of the matter is that the mind and the body are one. The mind is in every cell of our bodies. Which means our emotions and our thoughts affect every part of us. From the very tops of our heads to the tips of our toes, every muscle and every nerve fiber. It works like this, our emotions are triggered by our thoughts and these trigger the release of various chemicals into our body which is carried via the blood stream to every part of our body. Experiencing persistent or chronic negative thoughts such as "I can't stand this pain much longer" or "what if I never get better?" can trigger the release of chemicals, such as cortisol the stress hormone, that causes further body malfunction. (Gardner-Nix & Costin-Hall,

2009). We are not designed to hold negativity and stress for long periods of time. Our immune system can't function optimally when we are constantly feeling helpless or hopeless or angry. Additionally, our ability to have deep restorative sleep becomes impaired. There is even research that shows that long lasting feelings of anger actually increase our sensitivity to pain and decrease the effectiveness of pain medications. (Gardner-Nix & Costin-Hall, 2009) In other words chronic stress can keep us sick and in pain!

Negative emotional reactions come in all forms of shapes and sizes but most have a common theme that revolves around anger and fear. Most of us have been brought up to believe that modern medicine can fix what ails us. We are often surprised and angry when we find out that medicine has its limitations especially when it comes to helping relieve us from pain. It just doesn't seem right and it doesn't make sense. If they can put a man on the moon, why can't doctors help make the pain go away? And it's scary to think that the pain may never go away. We don't like to think of ourselves as being scared. That's for children not adults. But being in pain is scary. It brings up fears about our ability to take care of ourselves or our family. We fear that we may lose income or attractiveness or independence. We fear that the quality of our life is irreversible altered and that we won't ever again be able to feel joy or peace or happiness unless the pain goes away.

It's almost as though people in chronic pain experience only two mind states: The first is a ruminative, obsessive focus on pain sensations and the continuous worry and fear about how the pain will affect our present and future life. We ruminate and obsess on the mismatch between how we want our lives to be and how they currently are, leaving us feeling hopeless and depressed. Because this state of mind is so distressing, it gives rise to the second state; one of avoidance. Feelings of fear, confusion, anger, disappointment, frustration are difficult emotions to tolerate and most of us will do anything to make them go away. We may not even be aware of the desperate measures that we take to rid ourselves of these highly distressing feelings. Nevertheless the high rates of alcoholism, addiction to nicotine, internet, medications, overeating, over-sleeping, and over-working suggest a pattern of avoidance that is rampant in our society. Unfortunately, avoidance and suppression of feelings and thoughts through distraction, simply leads to an unexpected outcome, namely an increased intrusion into our mind of the very thoughts and feelings we are trying to avoid! Clearly we need another way out of this trap. And there is one. It is called mindfulness. The practice of mindfulness allows us to focus on the present in a way that expands our perspective. With mindfulness we can move from a narrow, restrictive focus on fear, worry and pain to learning to relate differently to our illness or pain. We can learn that suffering is only one option available to us in dealing with pain. This is the very heart of healing.

Why Mindfulness

Mindfulness practice has its origins in Buddhist meditation and today it is being used to help treat a number of mental and physical conditions. Although it cannot cure disease, clinical studies show that mindfulness practices help with reducing stress and anxiety, increasing relaxation and immunity to infection and increasing feelings of happiness and well-being. In one study it was found that subjects that participated in as little as 8 weeks of training in mindfulness showed clinically significant increases in activation of their left prefrontal cortex (the area behind the forehead) which is associated with feelings of well-being! (Hanson, 2009)

When used as an adjunct to medical treatment, mindfulness has been found to be helpful in reducing pain and improving physical wellbeing and functioning. In a number of studies on pain conducted at the University of Massachusetts Medical Center (UMASS) Pain Clinic, it was found that 1/2 of patients who participated in a 10 week Mindfulness Based Stress Reduction (MBSR) program experienced a 50% decrease in pain, while 2/3 of those who participated reported a 33% decrease in pain! (Kabat-Zinn, 1982).

The Mindful Mind

So what is mindfulness? Simply stated, mindfulness is a way of paying attention to the present moment. Bringing a particular kind of focus and awareness to the here and now is the essential core of mindfulness. Now you might be saying to yourself why would you want to pay attention to what is happening now? That is the farthest thing from what you want! What may sound better to you is to find ways of doing the exact opposite, how to be distracted from the pain that is in the now. This is probably one of the most common reactions to the idea of learning how to live mindfully. But what you may not be aware of is that by learning and practicing how to pay attention to pain in a new way, you can open the door for profound healing, both emotionally as well as physically. Let me clarify this...practicing mindfulness cannot "undo" an injury. It cannot heal a disease. It cannot change financial difficulties .It cannot change life altered circumstances. What it can do is help you find your way back to feeling whole. What it can do is help you find compassion while facing hardship. What it can do is lower your stress and improve your immune system. What it can do is help you reclaim what the pain may have taken from you; your power and your hope.

Our minds have been referred to as a "monkey mind." Like a monkey jumping from branch to branch, our minds jump from topic to topic, from thought to thought. Our minds wander and drift from the here and now, to thoughts about the past, to thoughts about the future. We worry, we plan, we reminisce, and we daydream. We move in and out of being on automatic pilot, lost in thought even while we are engaged in

activity. Perhaps you have had the experience of driving down the road and not recalling how you got as far as you did, maybe even wondering if you have been following the rules of the road! Not being aware can be especially problematic for people in pain. Even the simplest of movements when done without paying attention can cause increased suffering. Twisting the wrong way, standing too quickly, even lifting a light object without presence of mind can trigger days or weeks of intense pain. Additionally, the cost of living a life that is only sometimes present is that we miss whole portions of our life. We miss both huge swatches of time as well as subtle textures of our life. Literally, we miss our life because our mind is somewhere else.

It takes training and practice to focus the mind to help it override its natural tendency to ruminate or avoid. This focusing is both stabilizing and calming. Not only that, but as you become more and more, moment to moment present (mindful) in your life, you will begin to see things in a new way. Perception is altered, opening up the doorway for learning. Learning how to see differently your pain, your body, your thoughts and your feelings. "One way to think of this process of transformation is to think of mindfulness as a lens, taking the scattered and reactive energies of your mind and focusing them into a coherent source of energy for living, for problem solving and for healing." (Kabat-Zinn, 1990, pg. 11)

One of the key elements of living more mindfully is paying attention on purpose (not being on autopilot) and accepting each moment as it is. What does this mean? It means paying attention to the way things are at each moment rather than how the moment is not what we may want it to be. Focusing on the mismatch between how things are and how we wish them to be is what feeds rumination, worry and depression. Mindfulness means paying attention to whatever is happening right now, *as it is*. We learn to do this because the pain is part of our "now" experience and if we are to move towards deeper levels of physical and mental health, we have to start where we are, not where we wish we were.

The second element of mindfulness is non-judgment. When we are simply "being" with what is, there is no need for monitoring, judging, or evaluating whether our experience resembles the ideas we have set for our life. The first step in letting go of judgments is to simply become aware of when we are experiencing them. Taking the role of an impartial observer of our thoughts, we can begin to notice the constant stream of judgments that is ever flowing through our minds. Judgments reflect thoughts that look at good, bad, right, wrong, succeeding, failing, positive, negative, pleasant, unpleasant, liking and disliking to name a few. (Clearly there are lots of descriptors that we use to judge our experience!) Our tendency to judge an experience happens in a flash (often unconsciously) and just as quickly comes our *reaction* to that judgment. When we judge an experience as unfavorable or negative, we not only tense our muscles, we naturally look to distance ourselves from that experience (avoidance). It is this lightning fast emotional reaction to negative judgments that interferes with our ability to notice more *fully* our experience. Avoidance takes precedence over presence. However it is

through staying present with what is, in its entirety, that we open up for ourselves a new world of seeing our pain. Using gentle kind efforts to repeatedly bring our attention back to a single object, we begin to lessen our reactivity and increase awareness of different aspects of our experience that we may not have noticed before. "Each present moment can be embraced as it is, in its full depth, width, and richness...." (Kabat-Zinn, 2007, pg. 65)

The Practice

One common technique for pulling the mind back to the present is to focus on the breath. Why the breath? Our breath is a helpful focusing agent for a number of reasons. First, it is always with us, so it is always available to use to help pull our mind back to the present. Second, although we tend not to give it much thought unless we are struggling to recover it such as when we are choking or stuffed up, the breath is a sign of life. As with the heartbeat, the breath has its own life rhythm that is with us from the moment we are born until our death.

As we focus on the breath, we notice that there are a multitude of places in the body that we can observe its action. There is the sensation of breath coming in through the nostrils. There is also the expansion of the chest and belly with the inhalation. There is deflation of the torso with the exhalation as well as the sensation of air moving over the skin beneath the nostrils or on the back of the throat. Becoming mindful of your breath means just noticing the breath as it is. As it is taken into and released from the body. Not trying to change the breath by breathing deeper or more fully, nor by thinking about the breath. Simply noticing the breath as it is. And as we notice the breath, we also notice that our mind begins to wander away. Each time we notice that we have lost our breath focus is an opportunity to practice mindfulness, by gently refocusing back again and again and again on the breath. Some find it helpful to simply label the thoughts they notice such as "worrying" or "thinking" or "planning" and then returning to the breath. Although we are focusing on the breath, we are really learning about our minds and our emotional reactions which allows for deeper self-understanding and insight.

Through mindful practice we learn that we can observe and be with the bare sensations of pain itself as we have learned to be with our breath. Recognizing that we cannot force reality to be different (for there not to be pain) and even if we don't like it, we don't have to respond to pain with avoidance. Staying present, we may discover that it is possible to actually relax into the discomfort. We can become more aware of the fluid nature of our pain sensations, the peaks and valleys of the sensations themselves. With mindful practice we begin to see that thoughts and feelings appear and disappear in the mind in *response* to the pain. If we have thoughts such as "I can't stand this pain any longer" or "this pain will never end" we begin to see that these are

thoughts, they are NOT THE PAIN. These thoughts and the generated negative feelings are separate and distinct from the pain. These thoughts and feelings are the suffering that we understandably create in *response* to pain.

Even if pain cannot be “fixed” but still can be healed. Sometimes all we need is the sense of the possibility and the recognition that suffering is only one response to pain. There is always the possibility of relating differently to our illness, our pain, our disability. There is even the possibility that healing can happen not by distancing us from our suffering, but by finding meaning, perspective and insight during painful life moments. As we bring non-judging, open-heartedness, acceptance and a curious and compassionate attitude to our mindful practice, we begin to see how our minds contribute to our feelings of suffering. It is through mindfulness that we can begin to learn that underneath the constant busyness of our minds we can find a place that allows us to work *with* the pain. A place where we can begin to separate thoughts and feelings from the pain sensations themselves. A place where we learn to reclaim the lost moments of our lives.

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Chapter 9 Supplements & Hormones

Herbal Medicine & Supplements

The following information is not specific to any particular situation, no claims are being made as to efficacy in a given situation. The information that follows is not intended to be an exhaustive review of a supplement. The proper use, potential drug – herb / supplement interactions, side effects, etc., should be researched further and discussed with your health care provider. Dose ranges and other information should not be considered a recommendation. If you intend to utilize any of these supplements, you must do additional research and I recommend you talk with a health care provider knowledgeable in the use of supplements, herbs and herb-drug interactions. Pregnancy or lactation requires special care in the use of supplements.

When it comes to supplements, and under the label of supplements, I am including herbal medicine, enzymes, nutritional supplements and topical creams. I believe they are best combined with other approaches to pain management and treatment. Although I have had some success using supplements for patients not wanting any other intervention, the results are typically minimal. But when combined with other therapies, especially acupuncture and chiropractic, these supplements can be quite beneficial. This discussion is not intended to be exhaustive, rather these are compounds that I am personally familiar with.

One area that is difficult to be specific with is Chinese herbal medicine. These formulas can be very effective at improving circulation, reducing and eliminating inflammation in nerves and other soft tissue and promoting the health and healing of tendons, ligaments, etc. Selecting the proper formula, either a traditional formula or one created for a specific patient, is a specialized skill. Consequently advice from a qualified professional is recommended.

Following is a short description of supplements I have found to be beneficial to varying degrees. It's not that one supplement is necessarily better than another, it's more about bio individuality. What this means is people have a different response based on their biology. Of course the specific pain complaint will also influence the usefulness of a given supplement. Keep in mind often times the best results are obtained with a combination of supplements. As previously mentioned, no attempt has been made to be definitive in the description of these supplements. Side effects, precautions, specific dosing guidelines, etc., when included are generalizations and should not be considered specific to any situation or person, nor are they inclusive of all possibilities. The information provided is simply to expose you to what my experience has shown to be efficacious. The appropriateness of any supplement mentioned is for you to determine in conjunction with your health care provider and with thorough research on your part.

These are not presented in any specific order.

Serrapeptase

Serrapeptase is a powerful enzyme that exerts a powerful anti-inflammatory action. It also influences clotting time (how long it takes to clot) because it breaks down fibrin. Fibrin is a component of the clotting process and interfering with this will potentially slow clotting time. Serrapeptase is also mucolytic (breaks down mucus) so it can be useful with sinus congestion and infection. Serrapeptase was originally isolated from the silkworm but is now a manufactured compound.

Many claims are made for the clinical benefits of Serrapeptase. My personal experience with Serrapeptase is in treating inflamed tissues such as muscles and joints, in the treatment of fibrocystic breast changes, carpal tunnel syndrome, arthritis, chronic sinus infections, deep vein thrombosis, sprains and strains, and in some types of cancer. I suspect its uses are broader than this, but these are the areas in which I have personal experience.

Serrapeptase strength is measured in SU, or Serrapeptase Units. The dose is dependent upon use and response, but as a general rule, I prefer the high end of the dosing range. Take on an empty stomach. The supplement should be enteric coated. Do not take this supplement for about 7-10 days prior to surgery or a week or two following surgery as it may impact clotting. It goes without saying that excessive bleeding during and after surgery is not desirable.

Bromelain

Another enzyme with similar uses as Serrapeptase. The most common use outside of use as a digestive enzyme, is for inflammation. This can be due to trauma, osteoarthritis, rheumatoid arthritis, and post-surgery. For use with osteoarthritis the addition of the bioflavonoid rutin and the pancreatic enzyme trypsin appears to result in a better clinical outcome.

Bromelain comes from pineapple. As an interesting side note, the reason Jell-O will not set up properly when fresh pineapple is added is due to the bromelain. Bromelain taken with food acts as a digestive enzyme. For therapeutic effects outside of digestion, bromelain should be taken on an empty stomach.

Side effects I have most commonly seen are nausea and loose stools. Bromelain may interfere with clotting so its use should be discontinued 7-10 days before surgery and not taken for 7-10 days following surgery

You will typically see bromelain strength measured in MCU's (milk clotting units) and GDU's (gelatin dissolving units). 1,200 GDU is about equal to 2,000 MCU. Dose range is about 500 mg three times per day. The higher the GDU / MCU, the better.

Boswellia

Boswellia, also known as Frankincense, is used in various indigenous forms of medicine. The most common use for Boswellia is in the treatment of inflammation and swelling from trauma and osteoarthritis. Boswellia is typically combined with other herbs and compounds such as curcumin, MSM (see below), ashwagandha and others. In Chinese medicine it would be common to include blood moving herbs in a formula. Blood moving herbs consist of herbs that have a variety of effects including dilating arteries, veins, and improving circulation in the capillary beds. Other actions include anticoagulant activity and thrombolytic activity (ability to break down clots). Although not related to chronic pain, Boswellia has shown efficacy in the treatment of asthma.

Side effects are not common, but when present most commonly involve nausea and diarrhea.

Common dose is around 500 mg three times daily. Use a standardized extract. Because herbs vary in potency based on a variety of factors such as where they were grown, what the growing season was like, and more, the amount of the compounds believed to be responsible for the medicinal effects of herbs varies from batch to batch. Standardization is supposed to guarantee you that the prepared product, the one you purchase, has at least the minimum amount of active ingredients as stated on the label. The truth is this may or may not be true, there could be more or less of the active ingredients present. Picking a quality product can be an art and science all in itself. If someone uses an herb product and there are no therapeutic benefits, the question becomes is this due to a poor quality product, is the product being used for the wrong problem (wrong diagnosis), or did it simply not work and another treatment approach needs to be tried. As with Serrapeptase and Bromelain, clotting may be impacted so the same precautions are warranted.

MSM

MSM is short for Methylsulfonylmethane and is closely related to DMSO. In fact DMSO is metabolized to MSM in the body. DMSO is a popular topical liquid, actually it's a solvent, and can be used to carry drug and other compounds through the skin for absorption and is commonly used for pain. DMSO seems to come and go in popularity but it is not an FDA approved substance for human use. Although many use DMSO for painful joints and muscles, I have not used it professionally, or personally, so I have not

included it in this section on supplements.

MSM has been marketed for many different problems and the science supporting all the purported uses is sketchy if not absent. There does appear to be benefit in the use of MSM for osteoarthritis and possibly as an anti-inflammatory. It is entirely possible the benefits in osteoarthritis are secondary to anti-inflammatory activity. When taken for osteoarthritis it is commonly combined with Glucosamine and Chondroitin. Keep in mind that the research on these two compounds is mixed. Other more questionable uses include, but are not limited to muscle pain, allergies, asthma, and chronic pain.

Safety in human use, proper dose ranges and long term safety have not been established scientifically but common dose ranges are 1,000 – 6,000 mg daily. I rarely use MSM in the clinic outside of joint problems. Common side effects are mostly gastrointestinal, with complaints of nausea, bloating and diarrhea. Other side effects have been reported.

An article published in *Alternative Medicine Review*, 2002; 7(1):22-44, titled “Sulfur in Human Nutrition and Applications in Medicine” provides additional information you might be interested in.

Curcumin

Curcumin is derived from turmeric, a common Indian spice and is frequently used medicinally as an anti-inflammatory. Curcumin is a very interesting herb which appears to be beneficial for a variety of health concerns from inflammation to cancer. In the case of pain, curcumin is commonly used in the management of arthritis, either osteoarthritis or rheumatoid arthritis and inflammatory conditions such as tendonitis and bursitis.

The dose varies considerably depending on its use. With pain management, 500 mg three times a day is a common starting point. On the other hand, much higher doses are used in the treatment of cancer. It is important to know that curcumin is poorly absorbed and utilized, something referred to as poor bioavailability. Bioavailability can be enhanced when curcumin is taken with a black pepper extract called piperine. Consuming with oil such as fish oil will enhance bioavailability as well. Some curcumin products contain piperine.

Side effects are typically minimal and if present, include nausea and loose stools.

Alpha Lipoic Acid

Alpha Lipoic Acid (ALA) is an antioxidant that occurs in a variety of plant and animal sources. A common use is in the management of diabetic neuropathy because it is purported to improve nerve function in diabetics. There are many non-pain related medical concerns that ALA has been claimed to be effective for, but from a pain treatment perspective, diabetic neuropathy is the primary use.

Dosing is typically 600-1500 mg daily

ALA appears to impact blood sugar control for the better. Therefore if you are a diabetic carefully monitor your blood sugar.

My personal experience with ALA is extremely limited, but it might be worth a try in diabetic neuropathy.

D-Phenylalanine

D-phenylalanine may be useful in managing pain because it slows the degradation of Enkephalins. If you recall from our earlier discussion under acupuncture, Enkephalins are your body's naturally occurring opioids. Since Enkephalins reduce pain, the slower the rate at which they are degraded, potentially the better their pain relieving benefit. In the study titled "Use of D-phenylalanine, an enkephalinase inhibitor (an enkephalinase is an enzyme that breaks down enkephalins) in the treatment of intractable pain" Adv Pain Res Ther 1983, the authors found that 250 mg of D-phenylalanine 3 times per day for two weeks resulted in pain reduction of 50 percent in almost 32 percent of the patients with chronic intractable pain. Only 4.5 percent responded to placebo. Other studies show no benefit from D-phenylalanine.

The results are certainly mixed, but given the nature of chronic and intractable pain, it would seem a trial of D-phenylalanine should be considered.

L-Tryptophan

L-Tryptophan is another supplement with mixed results in pain treatment, and it has a tainted history. Around 1990 thousands of people became very ill with eosinophilia-myalgia syndrome apparently from using tryptophan. Turns out the problem was related to contamination during manufacture by one Japanese manufacturer, at least that is the belief since about 95 percent of cases were traced back to this company. Since that time, to the best of my knowledge, these problems have not been seen and

tryptophan is a commonly utilized supplement.

L-tryptophan is an essential amino acid that must come from dietary sources, and is a precursor to serotonin. Once consumed, L-tryptophan is converted to 5-HTP and then to serotonin. Serotonin is involved with nerve conduction and appears to play a role in mood, sleep, pain perception and more. Serotonin appears to decrease pain sensitivity.

For our purposes, taking 5-HTP is an acceptable alternative to L-Tryptophan. 5-HTP and L Tryptophan are not the same compound, 5-HTP is a step closer to the production of serotonin as previously mentioned, which is why it is an acceptable alternative in this situation. L Tryptophan has other functions in the body so 5-HTP and L-Tryptophan should not be considered equivalent compounds.

This supplement should be used with caution or not at all if you are on Selective Serotonin Reuptake Inhibitors (SSRI), or MAO Inhibitors. These drugs are typically used for depression. Combining 5 HTP or L tryptophan with these drugs can lead to Serotonin Syndrome. Serotonin Syndrome is potentially life threatening and is the result of the effects of excess serotonin on the nervous system. The clinical picture of serotonin syndrome is beyond the scope of this book. As always, the intelligent use of herbs or herbs combined with pharmaceuticals is important and cannot be understated.

WebMD lists tryptophan as “possibly unsafe” due to the aforementioned history of thousands of people becoming sick with eosinophilia-myalgia syndrome, but as discussed, this appears to be related to contamination, not the use of the supplement.

Vitamin D

Vitamin D, also known as the sunshine vitamin because it is formed in our skin when our skin is exposed to sunlight, is a major player in maintaining our health. Vitamin D deficiency is a prevalent problem in many areas of the United States, and for that matter anywhere sunlight is in short supply during the winter. But even during the summer, vitamin D deficiency can be a problem due to the use of sun screens.

Vitamin D deficiency is linked to cancers, depression, osteoporosis and many other health problems, including pain syndromes. Although in my experience not many experiencing diffuse chronic pain respond to vitamin D supplementation, some do. In those that do respond, I have seen a complete resolution of pain within 24-48 hours. Given we need vitamin D for many reasons, it makes sense to try vitamin D and see if there is benefit.

Although vitamin D is typically a very safe vitamin (actually it's a hormone, but commonly referred to as a vitamin) to take, there are times supplemental vitamin D

should be taken very carefully or not at all. For example diseases that impact the kidneys ability to regulate vitamin D can result in elevation of blood calcium levels. The specifics of these diseases are beyond the scope of this book, but it is important to be aware there are potential safety issues.

Dose. This is controversial like so many other topics in medicine. The dose depends on age, absorption ability, amount of sunlight exposure, time of year, etc. The best approach is to have your blood drawn to evaluate your 25(OH)D level. Although lab normal is typically 30-100 ng/dl, it is my opinion, and the opinion of others, our blood level should not fall below 50 ng/dl. I believe optimal levels are 70-90 ng/dl, and I am aware of physicians that believe levels over 100 ng/dl are optimal. There is a concern by some that levels over 100 ng/dl long term may be problematic. Others believe much higher levels are safe long term. The reality is that for pain, levels over 100 ng/dl are not necessary. In Alaska, I use a dose of 10,000 IU daily during the winter for most people including myself. That may be excessive in some areas of the country. In the absence of a contraindication to taking Vitamin D, simply taking 5,000-10,000 IU daily for a couple weeks will either resolve, improve or not impact pain. Then dose can be adjusted as needed to obtain a healthy 25(OH)D level.

Hyaluroninc Acid

Hyaluroninc acid (HA) is a naturally occurring compound that is distributed throughout the body. There are fairly high concentrations in our joints. The use of hyaluroninc acid is gaining popularity in the treatment of joint pains in general and arthritic joints, especially osteoarthritic (OA) joints in particular. Hyaluroninc acid is FDA approved for injection to manage OA. The effectiveness of HA when taken orally and for that matter when injected into a joint is debated. My experience is HA can be beneficial in managing the pain of OA. Since the question remains as to whether the effects are biologic or placebo in nature, the best recommendation I have is to give it a try and see what happens. I bring HA to your attention because of the positive feedback I have had from people over the years. I have used it myself as well and believe it was beneficial. With joint problems I typically recommend 12 weeks as a trial period. At that time an evaluation as to efficacy can be made.

The dose is dependent on the percentage of HA present in each capsule. Follow the manufactures recommendations.

Chinese Herbs

Chinese herbs when properly prescribed can be beneficial in the treatment of different types of pain. Most, but not all, of the benefit from Chinese herbs in pain treatment

appear to be mediated through increased circulation and reduction of inflammation. The effects can be quite profound. The proper selection of Chinese herbs used to create a formula is necessary to maximize benefit and prevent the aggravation of a health problem. I strongly recommend you seek out the advice of a person educated in the use of Chinese herbs if you wish to utilize them in your health care. Because of the popularity of Chinese herbs various types of health care providers have added them to their practice. I would proceed with caution in cases such as this. You will be better served by a practitioner fully trained in their use.

Chinese herbs for adrenal support (see below for discussion on adrenal support) can be an important part of supporting a body in chronic or intractable pain. Herbs such as Ginseng, Astragalus, Licorice, Rehmannia, Cordyceps and others should be considered. These herbs should be combined to create a patient-specific formula. The therapeutic effect will be far greater when the formula is patient-specific. Proper adrenal support requires specific nutrients as well. For example the use of Pantothenic acid (B5), vitamin C and other nutrients are necessary for maximum benefits.

Pregnenolone / DHEA / 7 Keto DHEA

Adrenal glands are two relatively small glands that sit on top of the kidneys. They are involved in a variety of functions that are necessary for sustaining life. The medulla, or central portion of the adrenal gland, produces adrenaline and noradrenalin. These control our “fight or flight response” and release of glucose from our liver. Stressors, be it physical, such as pain, or mental, such as anxiety, result in the release of adrenaline and noradrenaline. The cortex, or outer layer of the adrenal gland, produces cortisol, aldosterone, and sex hormones. The body’s ability to handle stress, be it physical or mental, is dependent on normal adrenal gland activity. Chronic pain has wide spread effects on the body, one of which is over taxing the adrenal glands ultimately resulting in adrenal fatigue. When this occurs the body no longer deals well with stressors, resulting in symptoms such as profound fatigue, poor concentration, over reacting to mild stressors, feeling sick, and other complaints have been associated with adrenal fatigue. It is worth noting the idea of adrenal fatigue is not a universally accepted diagnosis, with some physicians believing the symptom picture is related to problems other than adrenal fatigue. A common test used in functional medicine to diagnose adrenal fatigue is diurnal cortisol levels as well as other objective signs such as a drop in blood pressure with change in position from lying to sitting or standing and of course subjective symptoms such as fatigue.

Support of the adrenal glands is important in helping the body heal. In addition to a variety of herbs and nutritional supplements as discussed under the Chinese Herbs section above, the following should be considered.

Pregnenolone is a precursor hormone (a hormone that is used to create other hormones) to a variety of other hormones and is necessary for adrenal gland support. Pregnenolone is commonly used by itself, but Pregnenolone can be combined with DHEA. DHEA (Dehydroepiandrosterone) is a steroid hormone that's produced by the adrenal glands and which may be reduced due to chronic pain.

A word of caution, DHEA is a precursor hormone to estrogen and testosterone and as such, might be a problem in certain situations. For example in the presence of prostate and breast cancer and DHEA may produce breast tenderness due to estrogen formation. Another symptom that is not uncommon, especially when using higher doses, is acne. Obtaining a serum DHEA level if you are supplementing is always good idea.

One way of getting around the possible increase in estrogen and testosterone while using DHEA is to supplement with 7-keto DHEA. This form of DHEA will not increase estrogen and testosterone.

A common Pregnenolone dose is 25 – 50 mg but can go considerably higher. I am unaware of any established optimal dose. DHEA dose recommendations vary as well. Some recommend 5 mg and others up to 50 mg daily. Women should generally take a lower dose than men. It's always a good idea to obtain serum DHEA levels prior to taking DHEA, but this is even more important when taking higher doses and when used in younger people

GABA

GABA (Gamma Amino Butyric Acid) is an amino acid that moderates the propagation of pain signals along nerves. GABA is an over-the-counter supplement that has been marketed for pain control and anxiety, either as an isolated supplement or part of a formulation. Endogenous (produced within the body) GABA is in fact effective in the previously described areas, but the effectiveness of oral GABA is a debated topic and in my opinion, probably not effective. I mention GABA in this section of otherwise potentially effective supplements because it is commonly utilized, but likely with no measurable benefit. I wanted to bring this to your attention.

Thyroid Hormone

Thyroid hormone and the more active form, T3, can have a profound impact on some cases of diffuse muscle pain. I have not seen this very often, but on occasion I have seen people presenting with complaints of wide spread muscle pain, typically with a diagnosis of fibromyalgia, which was unresponsive to treatment. When it was

determined they were hypothyroid and this was properly treated, the diffuse pain quickly resolved.

The diagnosis of thyroid dysfunction, specifically low thyroid function, also known as hypothyroidism, is not as clear as we might hope. What is a normal value for some of the measured hormone levels is debated, with sometimes significant difference in opinion. What this means is someone could be hypothyroid and be tested and have thyroid hormone levels that are within the normal range. Under and over-diagnosed hypothyroidism is in my opinion a significant problem.

Minerals and Omega 3 Fatty Acids

No discussion of supplements would be complete without mentioning the need for adequate intake of minerals and essential fatty acids (EFA's) such as fish oil. For example, inadequate magnesium intake can lead to muscle spasms and pain. EFA's are necessary for good health. In fact EFA's are used to manage arthritic pain, to reduce or prevent inflammation, reduce the likelihood of developing abnormal blood clots and much more. Although I am not a fan of the RDA (Recommended Daily Allowance) recommendations, the RDA for minerals such as magnesium, calcium and others seems to be adequate.

When it comes to magnesium and calcium, I recommended the following forms; Calcium citrate and magnesium chelates. Different forms affect absorption. For example, calcium citrate is absorbed better than calcium carbonate, magnesium chelates is better absorbed than magnesium oxide.

A common complaint when taking fish oil is the burping up of a fishy taste. I have found fish oil capsules produced by Nordic Naturals does not seem to have this problem. Typically 2-3, 1000 mg capsules of fish oil per day are adequate. Increasing this dose as needed might prove beneficial. If you eat a lot of oily fish then little or no supplementation would be necessary.

Diet

A diet that is high in quality protein and low in processed foods, simple sugars and white flour is important to minimize or eliminate chronic inflammation and to provide the body the needed amino acids to repair damaged tissues and to support the production of our endogenous hormones. The use of Omega 3 fatty acids such as fish oil, is an important part of a healthy diet as previously mentioned. Avoid foods you are known to be sensitive to as these will add to your inflammatory load. Chronic inflammation can lead to pain and is damaging to our tissues. Adequate intake of pure water is important.

Chronic dehydration leads to a host of problems including accelerated degeneration of intervertebral discs and the articular cartilage found in joints. Adequate hydration is also needed to maintain proper circulation.

Exercise

Adequate gentle exercise is important. Exercise improves circulation, aids in maintenance of proper weight, maintains function of joints, strengthens bones, improves mood and digestion and more. Ask your health care provider what is appropriate for you and then get started.

Conclusion

In this book I have attempted to present the most efficacious alternative and integrative approaches to chronic and intractable pain, at least in my opinion. Of course these approaches are also beneficial for acute pain. There will no doubt be those that believe I left something out, or have included a treatment approach they believe to be ineffective. All (with the noted exception of EFT as previously discussed) are known to me to be effective and are well worth trying. This is not to suggest all treatments are effective for all individuals, which would simply not be true. There are those in pain that will respond quickly and easily even after years of chronic pain, surgical procedures, physical therapy and more; I know, I see this almost every day, even in the most hardened skeptics. Sadly there are those that won't respond at all. Fortunately these are the minority, but for whatever reason, they simply fail to respond.

I wish you well in your search for a better life for yourself or someone you care about. Chronic pain impacts all of us, individually, our families and as a society. We need to constantly push forward in our understanding of pain and how to effectively treat it.

Following are some final thoughts I would like to share and offer up for your consideration.

Supplements

Supplements are best used in conjunction with other approaches discussed in this book. Think of them as adjunctive to the primary therapies.

Other Treatment Approaches

A variety of treatments have not been included in this book that may prove beneficial. Common approaches of which I have familiarity, and in fact have utilized either directly or by referral to another health care provider, include Rolfing, Cold Laser, also known as Low Level Laser, and Micro current therapy.

More information can be found on Rolfing at www.Rolfing.org.

Cold laser therapy has a considerable amount of positive research and it is certainly worth trying, but my experience is that other approaches are generally more successful. Having said that, I have the occasional chronic pain patient that does not respond to any other treatment. One of these patients was being treated surgically for back pain and the surgical procedure greatly intensified her pain to the point she was bed ridden much of the time. Any treatment to her back, including massage, chiropractic and acupuncture, not only did not help, but actually increased her pain because even relatively light pressure on her back exacerbated the problem. Laser therapy has

allowed us to control her pain, and has allowed her to resume most of her regular activities, at times for up to 2-3 months before additional treatment is necessary.

You need to be aware that lasers come in different powers (wattage) and different wavelengths. Proper treatment involves selecting the appropriate power settings, using the correct wavelength for what is being treated, setting the proper frequency and administering the correct amount of energy as measured in Joules, to the tissue being treated. If you decide to utilize laser therapy it is important for you find someone knowledgeable in the field.

Micro current therapy is another approach I like. At times I have used it as an isolated therapy and at other times combined it with acupuncture. Dr. Julian Whitaker describes the actions of micro current as follows "At the cellular level, micro-current therapy stimulates a dramatic increase in ATP, the energy that fuels all biochemical functions in the body. It also bumps up protein synthesis, which is necessary for tissue repair. The ensuing enhancement in blood flow and decrease in inflammation translates into reductions in pain and muscle spasms, as well as increased range of motion." More information can be found at <http://www.eastwestmed.com/index.php>. I have no financial interest in this company but I do use their equipment.

Causes of Treatment Failure

One of the most common causes of treatment failure is lack of consistency in treatment and not allowing for time to heal. For example, it is common to recommend a treatment frequency of three times per week with acupuncture until the chronic pain pattern is broken, but far too many ignore this recommendation and as a result, do not respond well to treatment. Failure to follow a recommended treatment frequency allows the body to hold onto its chronic pain pattern and this greatly diminishes the opportunity for a successful outcome. Additionally, many people rapidly experience a decrease in pain and rather than allow for complete healing, they begin engaging in activities that quickly aggravate their underlying pain problem. This typically results in no healing, or greatly slowed healing. The patient then comes to believe that treatment is not working, and they discontinue further care. I see this regularly and it is frustrating to all involved. The majority of those that adhere to a treatment plan and allow for time to heal will respond well. I strongly recommend you follow the treatment plan of your health care provider. We know what works and have seen the unnecessary failures. Consistency and patience are necessary for optimal results.

As mentioned at the Introduction, pain related to structural problems will often times need to be addressed surgically. These folks will typically not respond favorable to conservative treatment.

Post-Surgical Pain

It is not uncommon for pain to continue following surgery because of the underlying mechanism of chronic pain. The good news is post-surgical pain is easily treated most of the time.

Climbing the Ladder of Invasiveness

Aside from a major structural problem requiring surgery to prevent further injury, I believe in climbing the ladder of invasiveness. What I mean is work your way up to progressively more invasive procedures. If acupuncture does not work, you have not made the problem worse. If surgery fails it is possible you will be in worse condition than you were prior to surgery. I see patients that have undergone invasive procedures and are worse off. There are times when immediate surgery is indicated, but otherwise, tread carefully in the arena of invasive procedures

What You See is Not Necessarily What You Get

Not all pathology seen in an imaging study is the cause of pain. I have seen many times an MRI indicating the likely cause of pain is _____ (fill in the blank) and I will treat the person successfully with acupuncture and will obtain long term or permanent pain relief. The structural problem did not resolve with acupuncture, but the pain did. This means quite simply the problem was not caused by what was seen. It is entirely possible at some point what is seen on the MRI will be problematic, but don't believe there is always a cause and effect relationship. .

The Whole is Greater Than The Sum Of The Parts

Feel free to combine treatment approaches. For example I have patients who combine chiropractic with acupuncture. In many cases this results in a superior outcome. But be cautioned, in some cases this is problematic. For example, someone might be responding well to acupuncture, be pain free and then obtain a chiropractic adjustment and experience a setback. In cases such as this, it is typically best to set aside whatever treatment is causing the problem.

Patience is a Virtue

Give your treatment a fair trial before deciding it is not working. Talk with your health care provider regarding expected response time. For example, with acupuncture I expect to see obvious improvement within 4 treatments. People will typically experience pain relief during their first treatment (about 90 – 95 percent do), but if by the fourth treatment this pain relief is not lasting and improving, it is unlikely long term benefit will be obtained. There are exceptions to this rule, but it is my guideline.

Dry Needling

Dry needling was discussed previously, but in case you missed it, it is worth discussing again. With increasing regularity physical therapists are adding “dry needling” to their scope of practice. Dry needling is the process of using a needle, typically an

acupuncture needle, and inserting it, often times repeatedly, into an area of pain. This is a rudimentary form of acupuncture used infrequently by acupuncturists because the benefits are limited and more sophisticated acupuncture will produce superior results. Regardless of what the name applied to the procedure is, dry needling by any name is the practice of acupuncture. In fact, the practice of dry needling by physical therapists was challenged in court in Oregon. In 2014, the court ruled that dry needling is in fact acupuncture and in Oregon anyway, was outside the scope of practice of physical therapists. Typical training in dry needling is 20-30 hours. Training in acupuncture is typically 3000 hours or more. The practice of dry needling is a significant concern to many in the acupuncture profession. Our concerns are over safety and lack of education being given to the patient. I have heard patients refuse acupuncture treatment because they have already experienced dry needling and it was either described as very painful, ineffective or both. If you choose to allow a physical therapist to perform dry needling and it is ineffective, do not equate this with a failure of acupuncture. Dry needling is very rudimentary and lacks any form of sophistication. It may work, but in the absence of success, do not discount the possibility of a more sophisticated approach to acupuncture.

Try Try Again

It goes without saying that different health care providers have different skill sets and approaches. If you have tried one of the treatment approaches discussed in this book and did not respond well, consider utilizing a different provider and maybe one with a different approach. For example, as previously discussed, there are different styles of acupuncture, one style, say local acupuncture may not work, so try distal acupuncture.

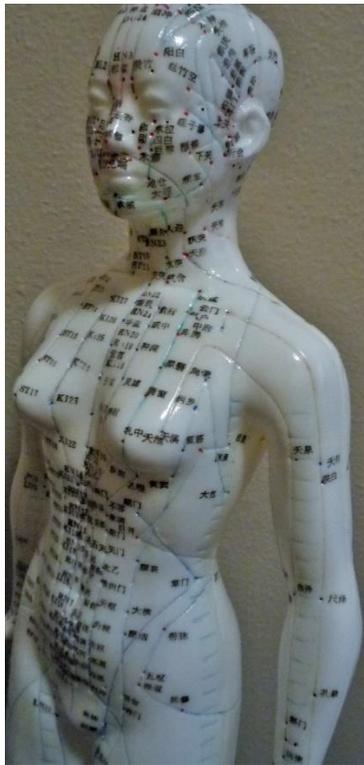
Addendum Acupuncture – A Deeper Understanding

Acupuncture – A Deeper Understanding

Although we touched a little on what acupuncture is and how it works, many reading this book desire a deeper understanding. This book is about providing information on effective treatments for chronic pain, not about pushing or being an apologist for acupuncture. Having said that, I believe acupuncture is an effective therapy that is discounted immediately by many because the supposed theories underlying acupuncture seem so farfetched, many believe there could not possibly be any clinical efficacy to acupuncture treatments. These conclusions are rooted in misunderstanding. Therein lies my motivation for writing this section on acupuncture. This is not intended to be an in-depth look at acupuncture, but rather an attempt to shed some light on just what acupuncture is and why it works, and to explain this in more familiar anatomic and physiologic terms. Some of what is presented here has been previously discussed, and will be expanded upon in this chapter. For a deeper look at acupuncture, I strongly recommend *Dao of Chinese Medicine* by Donald Kendall.

Energy – A Common but Incorrect Understanding of Acupuncture

If you look at a modern acupuncture chart, or as is seen in the image below, you will see acupuncture points and vertical lines, often referred to as meridians, on which many acupuncture points are located. There are also acupuncture points that are shown on some models and diagrams that are not located on the meridians. These are often times referred to as extra points. As discussed previously, the theory proselytized by many acupuncturists, physicians and lay people alike, is that qi, also known as energy, flows through invisible meridians and an imbalance in this qi flow ultimately results in pain or illness. An acupuncturist is said to restore health by balancing the energy flow in the meridians by needling acupuncture points.



There are multiple reasons why this model of acupuncture does not work; suffice it to say this is not a correct explanation of acupuncture, it contains concepts that are metaphysical and simply do not follow the known laws of energy, anatomy and physiology.

Just how did this explanation for acupuncture come into existence anyway? That's an excellent question. Ground zero for the energy model of acupuncture comes from a Frenchman named Georges Soulie de Morant. Soulie de Morant apparently conflated his limited understanding of acupuncture with mistranslations of the Huangdi Neijing. The Huangdi Neijing is an ancient book that contains the earliest medical text on acupuncture and dates back to 200 – 400 BCE.

The end result of Soulie de Morants translations and understanding was the energy model of acupuncture. But this is not what was taught in the Huangdi Neijing. For example, Soulie de Morant translated “qi” as energy, when in fact used medically it means the essence of air (oxygen) or function, as in the function of an organ. He was also responsible for the mistranslation of the Chinese word “jing” as meridian. Jing actually refers to vessels, as in blood vessels. Dr. Paul Unschuld is a leading sinologist (study of Chinese culture, literature and civilization) and has said *“Soulie de Morant coined the term meridian which despite its lack of faithfulness to the underlying*

*concepts, has been retained by nearly all authors writing for a western public.” It is worth noting that Soulie de Morant was not the only one guilty of mistranslation and misunderstandings. According to Dr. Kendall in his book Dao of Chinese Medicine, “from the fifteenth century onward, almost all areas of Chinese thought were influenced and revised by Western views and mistranslation, including areas of philosophy and religion.” Dr. Kendall goes on to quote Jurgen Thorwald in his book *Science and Secretes of Early Medicine*:*

It struck Western critics as partly “a grandiose intellectual construct” and partly “absolute nonsense.” The core of truly original ideas and sound data is overlaid with later additions. This is characteristic of all medical works of China and makes it difficult to distinguish genuine early conceptions from the highly imaginative speculations of later ages.

These types of translation errors in addition to being responsible for the continued misinformation being taught in most acupuncture schools outside of China, has done great harm to the broad acceptance of acupuncture by the medical community.

Acupuncture As it Was Intended

We have talked a little about how the popularized energy model of acupuncture came into existence, now let’s discuss acupuncture theory as it is described in the Huangdi Neijing. The early Chinese physicians were incredibly intelligent and provided the world with the incredible treasure we know as acupuncture.

The name acupuncture is actually a relatively late term that was created by a Jesuit priest circa 1400, by combining the words “acu” which is Latin for needle and “puntura” which means puncture. The Chinese name from antiquity is needle therapy.

Acupuncture as developed by the Chinese, is an anatomically based system of medicine. Anatomy was learned through cadaver dissection and over time a basic understanding of physiology was achieved. In fact, the Chinese were the first to describe the circulation of blood through the vascular system.

Acupuncture is based on an anatomical and physiologic understanding of the human body and how the system works as an integrated whole. Needle therapy (acupuncture) utilizes the neurovascular (nervous and vascular systems) system to maintain balance, also known as homeostasis, within the body. But just how is this accomplished?

Acupuncture Points

Let's first look at acupuncture points. Acupuncture points are actually nodes, specifically neurovascular nodes, that occur at locations where smaller, or collateral branches of blood vessels branch off of major longitudinal blood vessels. When stimulated with a needle, or some other modality, these nodes exert an influence on how our body, especially the vascular system works. Stimulation of an acupuncture point, or the surrounding tissue, triggers an impulse which travels up the peripheral nervous system to the spinal cord and ultimately the brain. Specifically the nociceptive (pain) and proprioceptive (position & location) afferent (moving towards the spinal cord and brain) nerve pathways are involved. This signal travels to the midbrain which then exerts descending control (control from the brain to the spinal cord to the peripheral nervous system or spinal cord segments that innervate organs) over the target tissues. Target tissues are the tissues, say for example, muscles in the low back, which we are attempting to exert influence over. It is worth noting that acupuncture points are not fixed locations. Because of anatomical variance, their location will vary to some extent, from person to person.

Because of the interconnectedness of our neurovascular system, stimulation of a neurovascular node (acupuncture point) can have an influence both locally at the site of needle insertion, and at some other point in the body. This is why distal acupuncture as previously described in this book, is effective. A somewhat simple example is the commonly seen referred pain into the left arm and jaw in someone experiencing a myocardial infarction (heart attack), or someone that has a ruptured spleen following an auto accident will frequently present with left shoulder pain.

Stimulation of neural nodes has widespread effects, including but not limited to, the following:

- Release of Enkephalins

- Increased circulation at the site of needle insertion and in the target tissues

- Reduction and elimination of inflammation

- Muscle relaxation

- Restoration of homeostasis

- Restoration of normal neurologic function

Put another way, needle therapy (acupuncture) has widespread effects that influence

the central nervous system (brain and spinal cord), peripheral nervous system, autonomic nervous system, sensory and proprioceptive nerves, immune function, local tissue reactions, and endocrine system (glands such as the thyroid, adrenals, testes, ovaries, etc.) As a result, needle therapy has the ability to normalize function of organs and tissues and restore homeostasis.

What About Acupuncture Research?

When acupuncture first became known in the west, there were those that actively tried to prove the effectiveness or lack thereof. I believe one major roadblock to widespread acceptance and more serious evaluation of acupuncture is the energy model of acupuncture. In the beginning very few researchers would even consider looking into acupuncture because of the inaccurate description of how acupuncture worked. Simply put, no serious scientist, well very few anyway, would look into the merits of acupuncture. In the beginning the standard response about acupuncture was it could not possibly work, and if there was any benefit, it was placebo. Acupuncture was frequently described as nothing more than a hypnotic ritual which triggered the placebo effect. One of the problems with this assessment was babies and animals were responding to acupuncture. Difficult to obtain a placebo effect for pain control in babies and animals. Another problem with the placebo hypothesis is of course a very high percentage of people utilizing acupuncture respond favorably to treatment. In my clinic the percentage of those making substantial, lasting improvement with acupuncture for pain related complaints is around 80-85 percent. Short term pain resolution occurs in about 90-95 percent of the patient's I see. 80 percent would be an unheard of placebo response. Skeptics would argue the percentages are not representative of people with chronic pain because only those with a bias towards acupuncture, and therefore being more likely to benefit from placebo, come in for treatment. On the surface this sounds plausible until you look at the facts. Consider the following:

Probably 1/3 or more of my patients come in as skeptics, some even worse than skeptical; they come in telling me upfront they do not believe acupuncture will work and the only reason they are here is to make their, doctor, spouse, or someone else happy. It is also not uncommon for someone who has tried acupuncture in the past and received no benefit, to try again and respond well. Different styles of acupuncture have varying success rates. Would someone that did not respond well to acupuncture the first time, and is therefore already negatively biased towards acupuncture, be expected to have a placebo response the next time they tried acupuncture? Unlikely.

Many that present with chronic pain have serious injuries that have been refractory to other forms of treatment, including surgery, nerve blocks, pain medications, and more. These are very real problems, not simply pulled muscles that will typically heal on their own. Most of these types of patients are treated successfully, even those that are die hard acupuncture skeptics.

I have utilized both local and distal acupuncture styles. As I have described in this book, the vast majority of times distal acupuncture works better. If response to acupuncture is simply placebo, then why is it that when utilizing local acupuncture the vast majority of patients did not notice improvement until at least a couple hours after treatment and in many cases not until the next day, but when utilizing distal acupuncture response is typically within seconds of needling the correct location? If response to acupuncture treatment were nothing more than placebo, then shouldn't we expect the response time to be identical? Why would the response time be different? After all, since a placebo exerts no physiologic effects, wouldn't we expect the treatment outcome to be the same regardless of acupuncture style?

What about the studies comparing real acupuncture with sham acupuncture? That is an excellent question and one I hear frequently by those arguing against the validity of acupuncture. I frequently hear about one or more studies that show sham acupuncture to be as effective as real acupuncture. Sham acupuncture involves needling close to but not directly over an acupuncture point. There are multiple problems, potentially anyway, with this type of research.

Of significant importance is who is performing the acupuncture. Assuming the acupuncture was performed correctly, the problem lies in not understanding the nature of the acupuncture points and the neurovascular pathways that contain the neurovascular nodes (acupuncture points). As mentioned previously, acupuncture points are not fixed, and they can be stimulated by needling directly into or near the node. We can even take this a step further and say that acupuncture points are less important than the neurovascular structures they reside in. This is near heretical, I know. The truth of the matter is, needling along the correct vessel, in the correct location, is more important than needling the actual neurovascular node (acupoint). If what I am saying is correct, then needling the acupuncture point will produce the same effect as needling the vessel the acupuncture point is part of, only in a slightly different area. What I mean by slightly different area is within an inch or two of the area. Additionally, it is possible to treat an area, say the neck, using different areas of the body. For example the neck can be treated by needling the neck, by needling the lower leg, lower forearm and hand and other areas as well. This be because of the way the body is wired neurologically. That being the case, is it any wonder "sham" acupuncture produces the same results as "real" acupuncture? It's not that sham acupuncture disproves the validity of acupuncture, rather it is a lack of understanding of how and why acupuncture works that leads researchers to the wrong conclusions. It is worth pointing out that not all studies show sham and real acupuncture producing the same results.

We have research looking at changes in nerve conduction and blood chemistry when acupuncture is being used. We also have fMRI studies showing changes in brain activity as well. Early research into the mechanism of action for acupuncture has shown

that the drug naloxone mutes the physiologic effects of acupuncture. Naloxone ties up opiate receptor sites in the body, blocking the effects of endogenous opiates. This shows that acupuncture is at least in part mediated through the release of our bodies opiate pain killers.

How Should We Study Acupuncture?

Outcome based studies that compare one type of treatment, for example physical therapy, against another type of therapy such as acupuncture are an excellent way to look at clinical efficacy. Research into the physiologic effects of acupuncture are important and as our understanding grows this will translate into more effective use of acupuncture. But from a pragmatic, what works and what doesn't to help people heal approach, outcome based studies are excellent. In outcome based studies the ability to control for all variables is missing, so the research is not as pure from a scientific point of view as we would like, but it is a practical approach. Outcome based studies have been completed by major institutions such as Mayo Clinic and others, and the results of many of these studies show the superiority of acupuncture over more standard forms of treatment for a variety of problems such as migraines, osteoarthritis, fibromyalgia and more.

There is much more that can be said about acupuncture, its mechanism of action and treatment efficacy. If you are interested I again recommend the book *Dao of Chinese Medicine* by Donald Kendall.

About the Authors

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Began his career in the health care field as a paramedic in San Diego after graduating from the UCSD paramedic program in 1979. After 10 years he moved into the field of natural medicine, earning his degree in Acupuncture & Oriental Medicine (AOM) through the Oregon College of Oriental Medicine. Following graduation he completed course work in clinical hypnosis earning a degree through the American Institute of Hypnotherapy. He is the author of *Breast Thermography: What Every Woman Must Know Before Having A Breast Thermogram*. At the time this book was written, he has been in practice over 23 years.

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Advanced Mind Systems a company in the early stages of development focusing on the improvement of human potential.