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True Wellness *for Your* Heart



Combine the best of
Western and Eastern medicine
for optimal heart health

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ISBN: 9781594397356 (print) • ISBN: 9781594397363 (ebook)

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Cover design: Axie Breen

This book typeset in Minion Pro and Frutiger.

10 9 8 7 6 5 4 3 2 1

Publisher's Cataloging in Publication

Names: Kurosu, Catherine, author. | Kuhn, Aihan, author.

Title: True wellness for your heart : combine the best of Western and Eastern medicine for optimal heart health / Catherine Kurosu, Aihan Kuhn.

Description: Wolfboro, New Hampshire : YMAA Publication Center, Inc., [2020] |

Series: True wellness | Includes bibliographical references and index.

Identifiers: ISBN: 9781594397356 (print) | 9781594397363 (ebook) |

LCCN: 2020931874

Subjects: LCSH: Cardiovascular system—Diseases—Prevention. | Cardiovascular system—Diseases—Treatment. | Coronary heart disease—Prevention. | Coronary heart disease—Treatment. | Heart—Diseases—Prevention. | Heart—Diseases—Treatment. | Hypertension—Prevention. | Myocardial infarction—Prevention. | Arrhythmia—Prevention. | Energy medicine. | Holistic medicine. | Medicine, Chinese. | Self-care, Health. | Alternative medicine. | Health—Alternative treatment. | Health behavior. | Qi gong—Therapeutic use. | Mind and body. | Well-being. | BISAC: MEDICAL / Preventive medicine. | HEALTH & FITNESS / Diseases / Heart. | HEALTH & FITNESS / Healthy Living.

Classification: LCC: RC685.C6 K87 2020 | DDC: 616.1/2305— dc23

NOTE TO READERS

The practices, treatments, and methods described in this book should not be used as an alternative to professional medical diagnosis or treatment. The authors and publisher of this book are NOT RESPONSIBLE in any manner whatsoever for any injury or negative effects that may occur through following the instructions and advice contained herein.

It is recommended that before beginning any treatment or exercise program, you consult your medical professional to determine whether you should undertake this course of practice.

Table of Contents

Foreword by Bart G. Denys, M.D. vii

Preface ix

CHAPTER 1

The Cardiovascular System, Health, and Healing,
from an East/West Perspective 1

CHAPTER 2

The Heart and Blood Vessels in Health and Disease 41

CHAPTER 3

The True Wellness Approach to Cardiovascular
Disease 59

CHAPTER 4

Qigong for Healing the Heart and Blood Vessels 111

CHAPTER 5

The Heart-Mind Connection 147

CHAPTER 6

General Principles of Self-Healing 167

Conclusion 173

Acknowledgments 175

Recommended Reading and Resources 177

Glossary 179

Index 185

About the Authors 189

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True Wellness

True Wellness: The Mind

True Wellness for Your Heart

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Foreword

HEART DISEASE REMAINS the number one cause of death in the western world in men as well as women and is rapidly catching up in developing countries. Despite significant progress in medication and available therapies in cardiology, the human cost and financial burden remain high.

True Wellness for Your Heart is a refreshing and successful approach to integrating Western and Eastern medical concepts. The authors provide a concise history of the evolution of cardiac knowledge and understanding from both sides. It is indeed remarkable how closely East and West parallel their approach to the treatment of cardiovascular disease, emphasizing lifestyle and wellness.

This book is a must read for patients who want to learn more about their disease process and available therapeutic options. It is equally instructive for both Eastern and Western medical practitioners who want to offer their patients an expanded range of therapeutic modalities. The authors encourage patients to learn about their options and suggest constructive ways to gracefully discuss with their practitioner. Finally, the lifestyle modification instructions are universal, well presented, and well worth the cost of admission.

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Preface

THE HEART IS A PUMP.

And yet, it is so much more than that. Through the ages, countless works of art have been centered on the affairs of the heart: not the mechanical pump that pushes blood through our vessels to nourish our bodies, but rather, the emotional heart that nourishes our souls. Thousands of poems, songs, plays, novels, paintings, statues, and movies have been devoted to the attributes of the heart. These include love, loyalty, courage, and honesty.

Even modern heart specialists, such as famed cardiovascular surgeon Dr. Mehmet Oz and renowned interventional cardiologists Dr. Mimi Guarneri, Dr. Sandeep Jauhar, and Dr. Kavitha Chinnaiyan, acknowledge that a mechanistic approach to treating heart disease is insufficient. They have all written persuasively about the role that emotional, physical, and spiritual health plays in the healing and even prevention of cardiovascular disease. These physicians, and many more, assert that a reductionist medical model that searches for a single cause for a given heart condition will miss the complex interplay of factors that influence cardiovascular health. Such factors are unique to each person: from genetic predisposition, home environment, and life experiences to socioeconomic status, environmental pollution, and geopolitical issues. These factors affect the body, mind, and spirit and influence all aspects of heart health.

As individuals, we may feel overwhelmed as we strive to change our internal and external environments to promote healing. Large changes in behavior are difficult to implement and maintain, but more and more research is showing that smaller changes in lifestyle choices create internal resilience to external factors that may be beyond our control.

The origins of disease are highly complex, especially with respect to the chronic diseases of Western societies, such as heart disease, type 2 diabetes, autoimmune conditions, and some gastrointestinal disorders. For many of these conditions, the biomedical model may not be the best way to institute effective health care. A growing body of evidence suggests that optimizing the way we eat, move, think, and sleep can do more to reverse chronic illness than medications or surgery. Adopting such lifestyle changes may even help to prevent these conditions in the first place.

The importance of the idea that what we eat and our levels of activity, sleep quality, and calmness of mind influence our health is not a new concept in medicine at all. In Western medicine, the importance of these factors was considered vital millennia ago and is reemerging today. Increasingly, students of Western biomedicine are being trained to consider all aspects of an individual and their illness. This patient-centered model is called “biopsychosocial medicine.” Practitioners who hold this viewpoint evaluate not just the biological cause of a disease but also the psychological, emotional, spiritual, and socioeconomic factors involved. All these elements can both affect and be affected by the disease process. Through this understanding, more and more medical practitioners are able to help patients heal and maintain optimal health.

Our purpose in writing *True Wellness for Your Heart* is to educate readers about how the heart and blood vessels work and how their daily choices can positively influence their cardiovascular health. It is not enough to simply take whatever medication your doctor prescribes. You can be an active participant in your own revitalization, whether you are recovering from heart disease or wish to prevent it. Your decisions about sleep, food, restorative practices, exercise, relationships, and community all affect your heart. Our hope is that you will use this book as a guide to enhance not only your cardiovascular health but also your complete well-being.

We wish you every success on your journey.

Aihan Kuhn, CMD, OBT
Catherine Kurosu, MD, LAc

The Cardiovascular System, Health, and Healing, from an East/West Perspective

A Brief History of the Heart

The heart and its workings are still incompletely understood. Certainly, the mechanical aspects of the heart are well documented. But, the emotional heart and the heart-mind connection still present an enigma. We intuitively know that our feelings can affect our cardiac physiology. Even our everyday language supports the notion that the heart is intimately involved in our emotional life. When we are discouraged, we say we are “disheartened”; when grief-stricken, we are “broken-hearted.” We call people “warm-hearted” or “cold-hearted” depending on our perception of their ability to be empathetic. If we think someone is overly sensitive, we say that they take things “too much to heart.” We linguistically tie the heart to not only our feelings but also to our thinking mind. Actors and musicians the world over learn their parts “by heart.” When we change our opinion, we have a “change of heart.” When we “get to the heart of the matter,” we use our intellect to decipher a problem to its essential indivisible root.

Affairs of the heart can have very physical consequences. We know that our bodies perceive heightened emotions such as grief and fear as reaction to a physical threat. In such a situation, our hearts beat faster

and our blood pressure rises as the body prepares to either fight or flee. This automatic response, when overstimulated, can damage the heart muscle, the blood vessels, and the small arteries that nourish the heart itself. The fight-or-flight response occurs during periods of psychological stress, even if there is no actual physical danger. During the last century, numerous observational studies have shown that it is possible to die from stressors such as a broken heart or overwhelming emotional strain.¹ In the following chapters, we discuss the physiology of the heart and blood vessels and how our biopsychosocial state influences our cardiovascular health; but for the moment, let's look at how our understanding of the heart has evolved over millennia and across hemispheres.

The heart remained a mystery in both the East and the West for centuries. Although the heart was described as the body's emotional and spiritual center by many ancient societies, its exact function was not entirely known. This was due, in part, to prohibition against human dissection in some societies, such as India.

The ancient Egyptians had a remarkably accurate understanding of the heart and the circulatory system. In the late nineteenth century, a German Egyptologist named Georg Moritz Ebers acquired a compilation of Egyptian medical texts dating from approximately 1550 BCE. This document, known as the Ebers Papyrus, contains seven hundred remedies and incantations, along with a description of the circulatory system that correctly placed the heart at the center of blood supply, stating that the blood vessels connected the heart to the major organs. As we will see, this schema was still incomplete.

In ancient Greece, the birthplace of Western medicine, the physician Hippocrates (460–360 BCE) notated very precise symptoms of heart disease, though the exact mechanism and anatomy were not entirely understood. The philosopher Aristotle (384–322 BCE) had a strong background in medicine because his father was a physician. Around the time of Hippocrates and Aristotle there was considerable controversy about the true nature of the heart. Some doctors felt that the heart was

1. Sandeep Jauhar, *Heart* (New York: Farrar, Straus, and Giroux, 2018), 23–31.

the seat of the intellect, whereas others argued that the intellect was housed in the brain. Hippocrates declared that consciousness and intellect rested in the brain,² but Aristotle supported the notion that human intelligence, movement, and the physical heat of the body emanated from the heart. He described the other organs such as the lungs and the brain as supporting players, whose sole purpose was to cool the heart and prevent it from overheating.³

The Chinese of the same era recognized that the heart regulated the flow of blood, but they also felt that the heart housed the spirit. The Heart Spirit was responsible for the connection of the individual with others in the family and society. Furthermore, the healthy Heart Spirit would ensure that this connection manifested at the right time and space with appropriate behavior and speech.⁴

In Europe, the Roman physician Galen (130–210 CE) performed surgeries on wounded gladiators and dissections on various animals. Based on his observations, he devised a theory of human circulation that stated the liver turned food into blood. The blood was then drawn into the heart, where it moved from the right side of the heart to the left side through invisible pores. While on the left side of the heart, the blood was mixed with “vital spirits.” The left heart created heat to move the blood to the rest of the body in a unidirectional manner, where it was consumed entirely. He also proposed that the heart was nourished by blood left inside its chambers and that the pulse that could be felt at various points on the body was the result of inherent contractility of the blood vessel in question.

Galen’s theories of human circulation held sway in Europe from the third to seventeenth centuries; however, in thirteenth-century Persia, a physician named Ibn al-Nafis took issue with many of Galen’s assertions.

2. Arnold M. Katz and Phyllis B. Katz, “Disease of the Heart in the Works of Hippocrates,” *British Heart Journal*, May 1, 1962, <http://dx.doi.org/10.1136/hrt.24.3.257>, <https://heart.bmj.com/content/heartjnl/24/3/257.full.pdf>.

3. Stanford University, “A History of the Heart,” <https://web.stanford.edu/class/history13/earlysciencelab/body/heartpages/heart.html>, accessed January 3, 2019.

4. Ted Kaptchuk, *The Web That Has No Weaver* (New York: McGraw-Hill, 2000), 88.

In his *Commentary on Anatomy*, written in 1242, Ibn al-Nafis correctly stated that the heart received its nourishment from the coronary arteries, that the pulse was a reflection of the force of the heart's contraction, and that there were no invisible pores between the right and left sides of the heart. Unfortunately, this commentary was not known in Europe and was almost lost to antiquity until a copy was rediscovered in 1924.⁵

Other men of science who contributed to the understanding of the human heart were Leonardo da Vinci (1452–1519) and Andreas Vesalius (1514–1564). Leonardo correctly described the turbulence of blood flow responsible for the closing of the valves that separated the chambers of the heart and blood vessels. He also noted the thickening of arteries that we now know as atherosclerotic plaque. Vesalius corrected some of Galen's errors, particularly the idea that there were invisible pores within the heart. Vesalius correctly theorized that in order for blood to get from the right side of the heart to the left, it had to pass through the lungs. Vesalius did not realize all of Galen's mistakes, however. He still promoted the idea that the liver created the blood, which was then totally used up by the body.⁶ Not until the next century was this error put to rest.

In 1628, the English anatomist William Harvey published his monograph, *De motu cordis*, in which he described a series of experiments that led him to correctly conclude that the heart was a pump that circulated blood through a closed circuit. By calculating how much blood the heart would pump out with each beat, and noting that the heart beat approximately seventy-two times per minute, Harvey showed that it would be impossible for the liver to create enough blood to keep a person alive if it were completely consumed. By his calculations, the liver would need to manufacture five hundred pounds of blood each hour. Harvey correctly surmised that blood keeps circulating and carried something within it that would nourish the body. The blood transported the nourishment, but was not itself consumed. In spite of the fact that

5. Sandeep Jauhar, *Heart* (New York: Farrar, Straus, and Giroux, 2018), 41.

6. Jauhar, *Heart*, 42–43.

The Heart and Blood Vessels in Health and Disease

The Healthy Heart and Vessels

The human heart is a muscular pump located in your chest that sits between, and is connected to, the right and left lobes of your lungs. The heart contracts in a regular pattern to push blood throughout your body via the arteries and smaller vessels. It generates sufficient force to circulate the blood to all your cells, where the oxygen carried by the red blood cells is used for energy production. Nutrients carried within the fluid portion of the blood are used by the cells of your organs and connective tissue. Waste products of cellular metabolism are moved into the blood and carried to the kidneys and liver, where they are processed and removed from your body.

Heart Anatomy

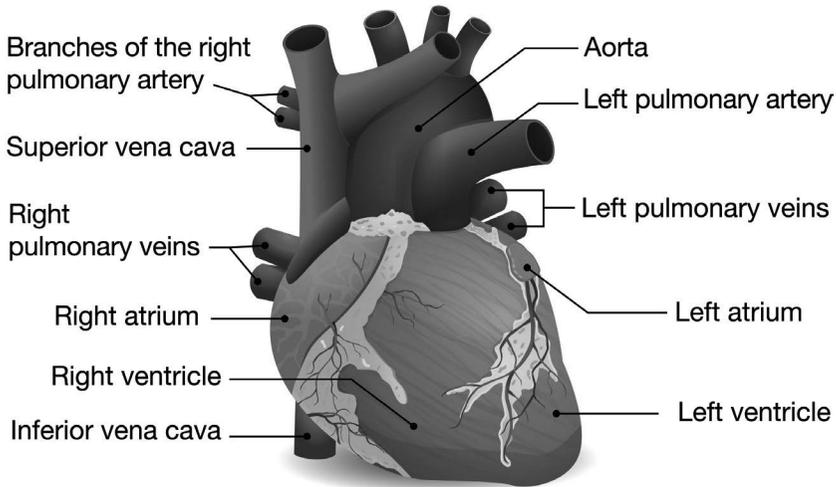


Illustration courtesy of Shutterstock.

The pressure generated with each heartbeat is transmitted through all the blood vessels and helps push the blood through the arteries, the organs and connective tissue, and the veins that bring the blood back to the heart. The blood that is carried back to the heart is low in oxygen. It arrives at the first of four chambers of the heart through two large veins called the superior and inferior vena cavae. The superior vena cava carries blood from the upper part of your body and the inferior vena cava carries blood from the lower part. The vena cavae connect to the muscular chamber called the right atrium. When the atrium contracts, it pumps the blood into the right ventricle through a valve that prevents backward flow. Next, the right ventricle contracts, sending blood through another valve into the pulmonary circulation. This circulatory system takes the poorly oxygenated blood to the lungs to pick up oxygen molecules and release carbon dioxide, one of the waste products of your body's metabolism. The freshly oxygenated blood then flows back to the

The Pathway of Blood Flow Through the Heart

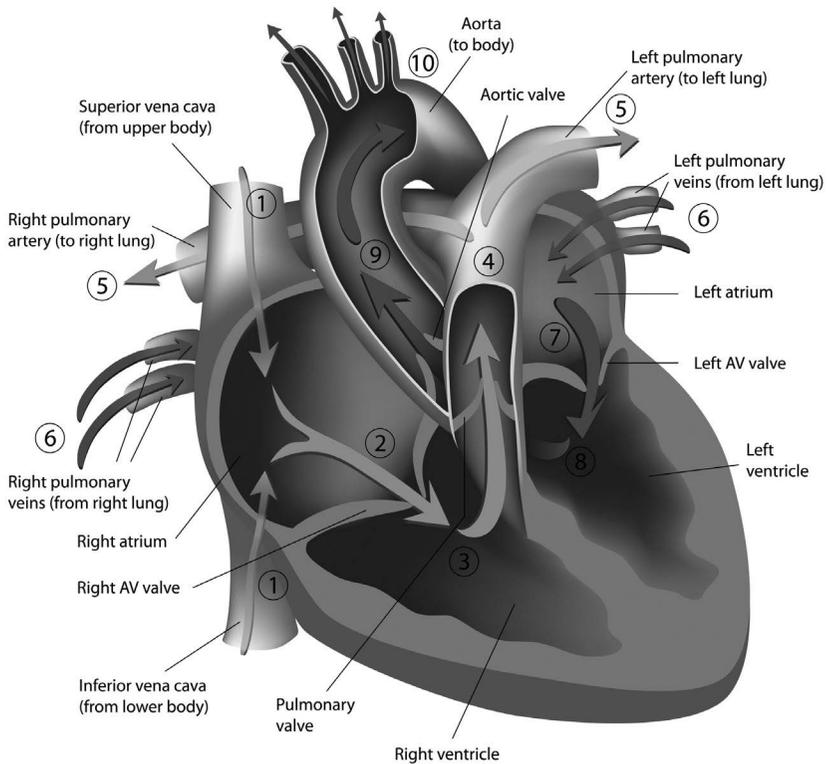


Illustration courtesy of Shutterstock.

heart, this time into the left atrium. From there, it is pumped into the thickly muscled left ventricle. When the left ventricle contracts, it pumps blood into the coronary arteries, to nourish the heart, and into the aorta. The aorta is the largest artery in the body, and it channels blood to smaller and smaller vessels to nourish the entire body.

These four chambers—the right and left atria and the right and left ventricles—contract in a specific sequence to generate movement through the chambers and through the two closed circulatory systems of the lungs and the rest of the body. Each heartbeat actually has two

Human Circulatory System

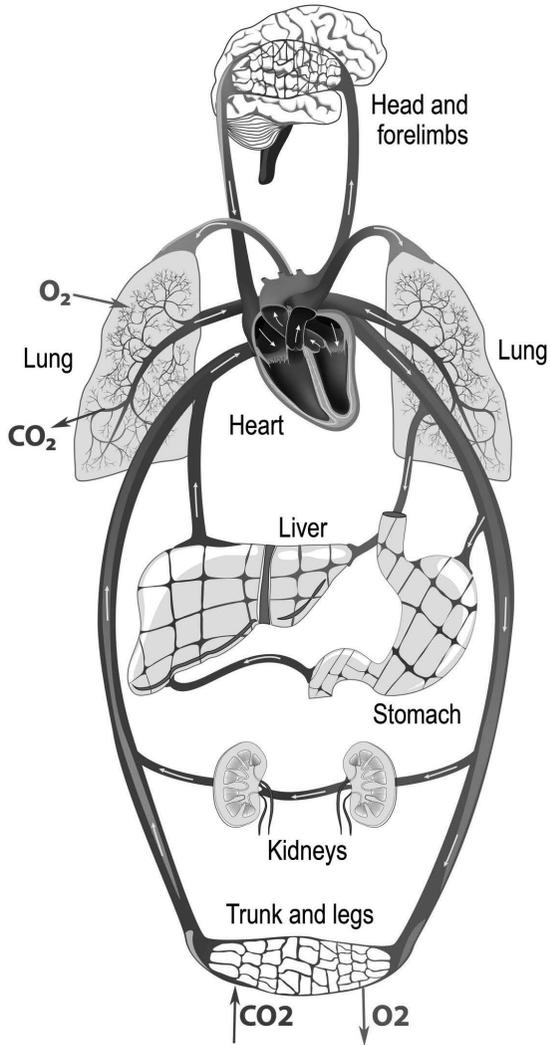
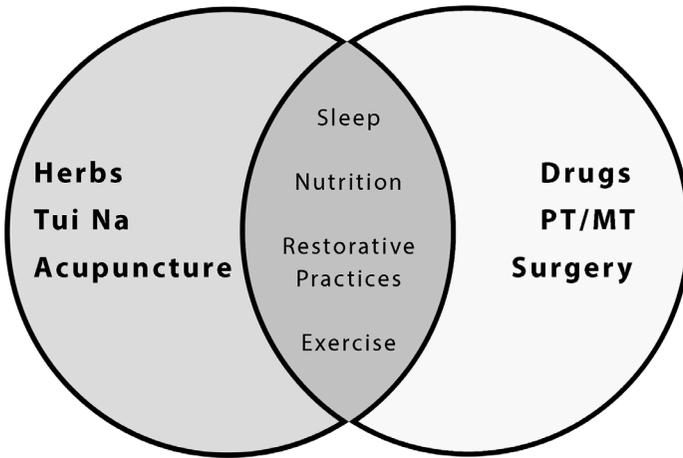


Illustration courtesy of Shutterstock.

The True Wellness Approach to Cardiovascular Disease

IN WORKING AND REWORKING THE ORDER of the sections within this chapter, it occurred to us that the difficulty we were having with the East/West juxtaposition of individual cardiovascular conditions was emblematic of the differences in approach between Western and Eastern medical systems. As discussed in chapter 1, Western medicine has a tendency to reduce a problem to a single cause, with the intent of finding a single solution. Eastern medicine takes a broader view and a whole-systems approach, employing strategies to balance all the organs and functions of the body, encouraging and maximizing our innate ability to heal. Western medicine has gradually been adopting a wider understanding of the multiple, complex causes of heart disease and is becoming more open to the wisdom of Eastern medicine in solving these difficult problems. That is why the True Wellness approach to health combines the best of both systems, using Eastern modalities to prime the body, mind, and spirit to promote overall well-being and utilizing Western discoveries in biochemistry, electrophysiology, and surgery as needed. To help you visualize the integration of Eastern and Western medicine, we have included the “East & West” diagram.

East and West



Both health-care systems encourage the optimization of lifestyle behaviors, including sufficient sleep, good nutrition, restorative practices like meditation or qigong, and exercise. The emphasis on these practices has shifted over the millennia. Ancient Western physicians prescribed these components of a healthy lifestyle, but from the time of the Scientific Revolution until recently, such practices were not as actively promoted by conventional health-care providers as they had been in the past. In contrast, Eastern physicians have always taken a whole-systems approach and sought to improve the overall well-being of the patient through these modalities. They understood that the foundational components of good health must be solid in order for the patient to heal. During the past several decades, Western medicine has returned to this perspective. Both paradigms realize that interventions, whether herbs and acupuncture or drugs and surgery, will not be effective in restoring health if a patient's underlying lifestyle foundation is crumbling.

In order to discuss an integrated approach to cardiovascular disease, we have to think in both specifics and generalities. Very often, the best way to solve a specific medical problem is to optimize the general health of the patient, reserving interventions for emergencies or for those patients who need extra assistance to recuperate.

Trying to discuss the Western approach and then the Eastern approach for each condition is cumbersome, owing to the general whole-systems methodology of Eastern medicine. Although Western medicine strives to take that same viewpoint, it is still quite a reductionistic paradigm. So, for clarity, we have divided this chapter into three sections: the Western explanations of various aspects of cardiovascular disease and specific conventional treatments, the Eastern approach to heart health and wellness, and an integrated summary of actionable items for you to use, whether you are recovering from, or trying to prevent, heart disease.

Western Approach to Cardiovascular Disease

Hypertension

Hypertension is another word for high blood pressure within your arteries. Blood pressure assessments actually measure two pressures, measured in millimeters of mercury (mm Hg). One measurement, called the systolic blood pressure, is the highest pressure in the artery at the maximum strength of a heartbeat. The other measurement, called the diastolic blood pressure, is the pressure within the artery when it is at rest *between* heartbeats. Your blood pressure is reported as the systolic blood pressure over the diastolic blood pressure. For example, a normal blood pressure would be 120/80.

Some adults have blood pressures as low as 90/60, and for them, this is normal. A reading of above 140/90 on two separate occasions is considered hypertension; above 180/110 is considered a hypertensive crisis. A gray zone has been categorized as “prehypertension”: if your systolic blood pressure is between 121 and 139, or your diastolic blood pressure is between 81 and 89, you have prehypertension.

Why are all these numbers important?

Many people with prehypertension and hypertension have no symptoms at all and feel perfectly well, but having any level of persistently elevated blood pressure increases the risk of heart disease and stroke. Even people with prehypertension have double the risk of developing

heart disease than does someone with normal blood pressure. Knowing your blood pressure gives you the opportunity to take action if it is elevated and avoid the complications of hypertension, such as heart attack, stroke, and kidney failure.

High blood pressure is extremely common. According to statistics gathered by the American Heart Association, nearly 80 million adults in the United States have hypertension. That's about one-quarter of the population, and that is not even counting the increasing number of hypertensive children and adolescents! In the decade from 1999 to 2009, the death rate from hypertension increased by 17 percent. The estimated annual cost to the country due to hypertension is more than \$50 billion. Clearly, there is a lot of room for improvement.

So, if you have high blood pressure, what can you do? First, you need to understand that some people with hypertension have a genetic predisposition to it. They may be able to make significant improvements in their blood pressure readings through lifestyle changes, but may still require lifelong medication. This should not be considered a failure, at all. Also, the older you are, the more likely you are to have high blood pressure, because your arteries become less pliable. That alone can result in hypertension. Over 65 percent of people sixty-five years old and older have hypertension and, even if your blood pressure is normal at age fifty-five, you still have a 90 percent lifetime risk of becoming hypertensive.

Genetic heritage and aging are factors that you cannot modify, but there are factors that you *can* change. If you smoke, stop. If you don't exercise regularly, start. If you are overweight, lose ten pounds. Even this relatively small loss can improve your blood pressure significantly. If you eat excessive amounts of salty, highly processed food, change your diet. All these interventions have been shown to significantly decrease blood pressure. Even a small decrease in blood pressure can yield large results. If you lower your systolic blood pressure by 5 mm Hg, for example from 140 to 135, you will lower your chances of dying from the complications of hypertension by 7 percent.

High blood pressure can also be caused by stress, being overweight, drinking too much alcohol, and insulin resistance. Certain medications

Qigong for Healing the Heart and Blood Vessels

THE TERM *QIGONG* is composed of two words. The first, *qi*, has been translated as the “life energy” or “vital force” within the body; *gong* has been translated as “work” or “mastery.” Together, the word *qigong* can be interpreted as “energy work” or the act of mastering one’s vital force. Qigong is a healing practice that combines breath control with concentration of the mind. There are many forms of qigong, but they all basically fall within two types: passive or active. Passive qigong is performed seated or lying down and resembles the stances we associate with meditation. This is also known as internal qigong or *nei gong*. In the active form of qigong, breath control and focused attention are combined with specific movements to create a type of moving meditation. Active qigong, also known as external qigong or *wei gong*, is similar to tai chi and yoga.

The practice of qigong is an ancient one. These exercises were known by several names over the centuries, including Dao-Yin, “leading and guiding the energy.”¹ Earlier in this book we discussed the silk scrolls that were discovered in the Mawangdui tombs in 1973. These silk texts date back to 168 BCE. A chart was found among these scrolls that depicted the Dao-Yin postures. The Dao-Yin Tu (Dao-Yin Illustrations) consists of four rows of eleven postures, forty-four in all. In these illustrations, the roots of most modern qigong practices can be found. There

1. Kenneth S. Cohen, *The Way of Qigong: The Art and Science of Chinese Energy Healing* (New York: Ballantine Books, 1997), 13.

were also descriptions of the stances, instructions for the movements, and indications for the use of each exercise. Certain Dao-Yin exercises were deemed valuable in treating low back pain and painful knees; others were indicated for gastrointestinal disorders, and still others were designated to treat anxiety. This demonstrates that not only were Dao-Yin exercises prescribed as a medical therapy, but that ancient physicians appreciated the utility of this type of qigong practice in the treatment of emotional disharmony.²

As old as qigong is, its development was likely influenced by the older Indian practice of yoga. The earliest known documentation of yoga was found in the Indus Valley and dates back 5,000 years. Two millennia later, in approximately 1000 BCE, the Upanishads were written. These commentaries emphasize the personal, experiential nature of the journey toward spirituality and elucidate many basic yoga teachings, promoting an understanding of the principles of karma, chakras, meditation, and prana.³ In India, the vital life force is known as *prana* and pranayama is the cultivation of the life force through breath control. By breathing with intention, the prana is moved through the *nadi* (channels). The intersections of important *nadi* are called chakras. There are many similarities between this system of energy management and that of qigong and Eastern medicine. Qigong requires the same attention and control of the breath and the movement of qi through channels of the body. Interestingly, the locations of many important acupuncture points correspond to the positions of the chakras.

While yoga and tai chi have many benefits, we feel that qigong is the best practice if you are new to these Eastern healing arts, especially if you have any physical limitations that prevent prolonged standing or impede your ability to move between standing and lying positions. Whether you practice nei gong or wei gong, the regulation of the following components are related and inseparable: the body, the breath, the

2. Cohen, *Way of Qigong*, 13.

3. Jennie Lee, *True Yoga: Practicing with the Yoga Sutras for Happiness and Spiritual Fulfillment* (Woodbury, MN: Llewellyn Worldwide, 2016), 7.

mind (thoughts), the qi, and the spirit (emotions).⁴ The purpose of regulating and strengthening these components is to achieve good health and longevity.

These related and inseparable elements can also be understood, in a traditional sense, as the Three Treasures—*jing*, *qi*, and *shen*. In Eastern medicine, the Three Treasures are considered the root of life. The *jing* is often translated as essence and, in a Western sense, is akin to your genetic constitution; it is a fundamental substance that is intimately involved with reproduction, growth, and development of the body from birth to death. As we discussed previously, *qi* has been described as the vital, dynamic force that animates the body. It could be considered the current that runs the motor of our metabolism and drives every aspect of our bodily functions. The term *shen* is harder to translate; for our purposes, it can be thought of as our mind or spirit. Depending on the context, the word *shen* can mean immortal, god, spirit, mind, or soul.⁵

By practicing qigong we can strengthen the Three Treasures. Because the *jing*, *qi*, and *shen* are inseparable, they support and fortify each other, leading to better physical and emotional health and well-being.

It is well beyond the scope of this book to have a complete discussion of the metaphysical aspects of qigong.⁶ An in-depth understanding of qigong is not necessary for you to begin your practice. What is necessary? You must focus attention on your breath and be aware of the flow of qi as you move your body with intention.

Qigong is a journey. The goal is not perfection, but incremental improvement in physical, emotional, and spiritual well-being. Patience and persistence is the key to receiving the many benefits of qigong.

4. Michael M. Zanoni, *Healing Resonance Qi Gong and Hamanaleo Meditation*, introductory comments, https://docs.wixstatic.com/ugd/9371b9_1f315b1505394b7bb6cceb9dc4272a6.pdf.

5. Jwing-Ming Yang, *The Root of Chinese Qigong* (Wolfboro, NH: YMAA Publication Center, 1989), 28.

6. For the interested reader, there are many excellent books on this topic listed in the Recommended Reading and Resources section.

Benefits of Qigong

Qigong practice benefits all parts of the body, including all the organ systems and the brain.⁷ In the following section, we discuss some examples of these benefits.

Nervous System Benefits

Qigong offers huge benefits to our nervous systems, both the central nervous system and the peripheral nervous system. Qigong practice helps concentration, improves mental alertness, and helps control emotion. Practice also helps preserve vision and hearing as the body ages.

Cardiovascular Benefits

Qi is dynamic. It performs like a motor that pushes the blood where it should go. If a person's qi is strong and circulates well in the body, their blood will also circulate well. If a person's qi is stagnant or weak, it will cause blood stagnation, which, according to Eastern medical theory, can cause heart disease. Qigong contributes to better heart health by regulating the autonomic nervous system. In particular, these exercises activate the vagus nerve, which is a great way to preserve heart energy, normalize cardiac arrhythmias, and maintain normal blood pressure.

Respiratory Benefits

Through deep and slow breathing, more oxygen goes into the lungs. Slow and deep breathing also activates the parasympathetic (calming) part of the autonomic nervous system. Recall that the nervous system interfaces with the immune system. This process helps the functioning of all cells through proper oxygenation as well as improves defensive energy—which in Western medicine we call the “respiratory immune system”—

7. Aihan Kuhn, *True Brain Fitness: Preventing Brain Aging through Body Movement* (Wolfeboro, NH: YMAA Publication Center, 2017), 11.

through modulation of the immune system. The lining of the nose, throat, lungs, gut, and urinary tract all contain immunoglobulin A (IgA). IgA is an antibody in the respiratory tract, which protects it from various germs and pathogens and acts as the first line of defense against bacteria and viruses. If the respiratory immune system is strong, immunoglobulin A can fight germs, making it harder for colds and other respiratory infections to take hold. This is why those who practice qigong generally have fewer illnesses.

Gastrointestinal (GI) Benefits

Qigong can improve stomach and spleen energy, which is related to digestion and absorption. From a Western perspective, qigong regulates the vagus nerve, which also controls digestion. With regular practice, digestive enzymes and digestive movement stay balanced through vagus nerve regulation.

Musculoskeletal Benefits

Once the circulation of the qi and blood are improved, muscles receive more oxygen and blood—the muscles become more resilient, more toned, and stronger. Muscle aging is delayed, and joints become more flexible. Overall, we can maintain a younger body even though we are going through the aging process.

Metabolism and Endocrine System Benefits

Balanced qi also helps balance the body's organ systems, which helps balance metabolism and the endocrine system. Here again, these benefits are due to the effect that qigong has on our nervous systems. The central and peripheral nervous systems are intimately connected to the endocrine and immune systems. Neuroendocrine-immune dysfunction can explain a variety of Western diagnoses, such as chronic fatigue syndrome, also known as myalgic encephalomyelitis.

Immune System Benefits

Qigong helps maintain normal immune function.⁸ We have already spoken about how these exercises can improve respiratory immunity and help keep infections at bay. For cancer patients, a healthy immune system can prevent infections during treatment. For those without cancer, a healthy immune system can identify precancerous cells and destroy them.

By balancing the sympathetic and parasympathetic nervous systems, qigong also balances the immune system, so that the immune system is neither too weak nor too strong. A weak immune system will result in recurrent infections. An overly aggressive immune system may result in autoimmune diseases like rheumatoid arthritis. In autoimmune diseases, the immune system turns against the body and attacks normal tissue. Qigong and tai chi help keep the immune system balanced.

Other benefits of qigong include delayed aging, improved balance, reduced risk of falling and injury, and improved memory.⁹

Now it is time to begin your journey and start your qigong practice.

Qigong for Healing and Prevention of Cardiovascular Disease

These qigong exercises were chosen for people who have recovered from a heart attack or heart surgery and who are able to do most normal activities. I (Dr. Kuhn) recommend that you do qigong on a daily basis. Hopefully the exercises will also help prevent future heart attacks and help people avoid heart failure or sudden death.

You will notice that I have given a range for the number of repetitions to do for each movement. The number of repetitions will vary based on your personal energy level, or how well you feel. For example, if you

8. Aihan Kuhn, *Simple Chinese Medicine: A Beginner's Guide to Natural Healing and Well-Being* (Wolfeboro, NH: YMAA Publication Center, 2009), 137.

9. For further reading, please see Recommended Reading and Resources at the end of this book.

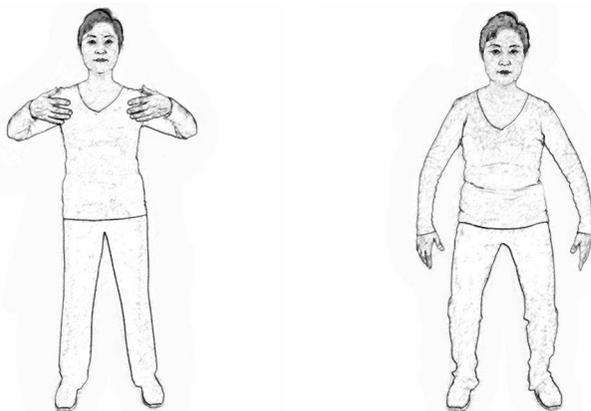
still have fatigue and are not able to do all of these exercises, you can do just the first few exercise movements. Repeat the movements until you feel you have had enough, before you have a moderate shortness of breath. If you feel fine, do all of the exercise movements.

I have suggested when and how to use your breathing to coordinate the movements. But, remember what is most important: *do not hold your breath*. The coordination of your breath with the movements will improve as you relax and get to know the movements. There is not a perfect way to do the qigong. Just practice.

1. Shake Hands, Arms, and Body

This is a nice light warm-up exercise to start gently stimulating the cardiovascular system.

This exercise helps unblock the meridians (energy channels) in the arms. One of the meridians is the heart meridian. You will need to relax your whole upper body, especially your shoulders.



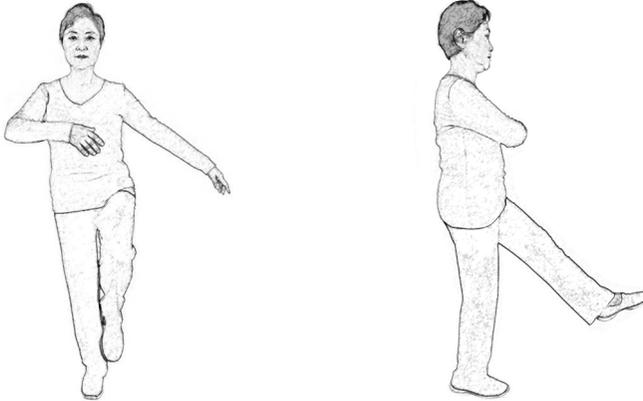
Stand with your feet about shoulder width apart. Bounce gently to shake the body, arms, and hands. Shake your hands from the chest down to your sides in a big motion.

Bounce about 40 to 50 times.

2. Walking and Kicking

Another warm-up exercise. Do this exercise at a pace that is comfortable for you. Your breath should be at a comfortable level.

This movement helps open the meridians in the legs. All the meridians are interconnected and support each other. Therefore all meridians need to be opened to maintain optimum health.



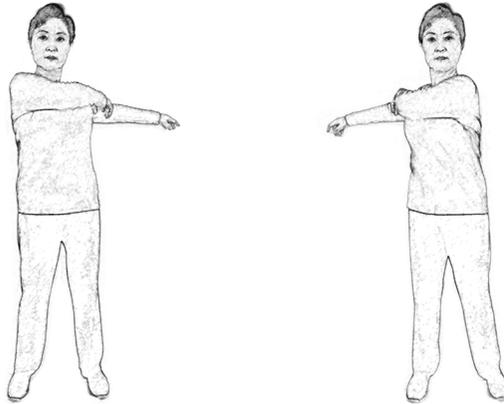
Walk in place. With each in-place step, kick the other leg forward, and swing your arms to the same side.

Alternating sides, do 30 kicks (15 on each side). It will take about 30 seconds.

3. Turn Body Side to Side and Swing Arms

This is also a warm-up exercise.

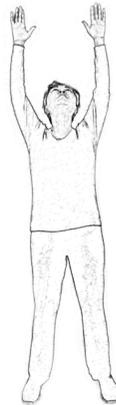
This movement helps keep the meridian pathways and nervous pathways open.



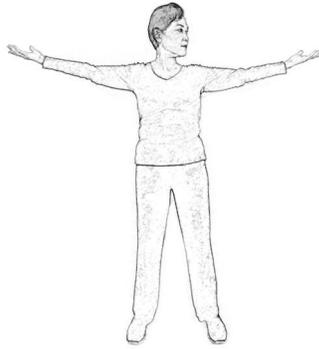
Stand with feet about shoulder width apart. Turn your body from side to side and swing your arms at shoulder level, while keeping your legs straight but not locked. Keep your head facing forward.

4. Open to See the Sky

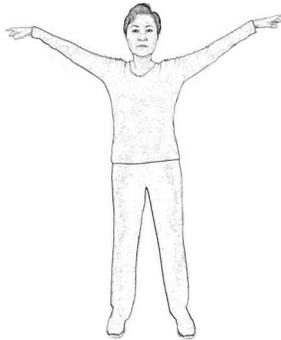
In this exercise, move slowly and focus on the body movement. Breathe slowly and deeply. Do this exercise and the following ones slowly.



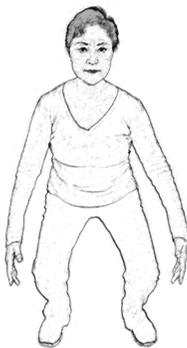
Stand with your feet about shoulder width apart. Take a deep breath. Raise your arms in front of the body until your hands are above your head. Your eyes follow the upward movement of your hands.



Exhale as you separate your arms, moving them downward to shoulder level. Your eyes follow your left arm.



Inhale, turn the palms downward, and raise your arms slightly.



Exhale as you move your arms downward. At the same time, your body sinks.

The Heart-Mind Connection

THIS CHAPTER IS AN EXCERPT from our first book *True Wellness*. We begin with the first of our Four Steps to Optimal Health—Step One: Build Your Positive Mind. You may be asking yourself, what does the mind have to do with heart disease? Quite a lot, in fact. Recent studies have shown that strong emotions such as hostility, depression, loneliness, and grief are even stronger predictors of coronary artery disease than are smoking and elevated cholesterol. From a biochemical point of view, such emotional states are known to increase IL-6 (interleukin-6), a marker of chronic inflammation. As we have seen, chronic inflammation is instrumental in the development of various types of heart disease.¹

How to Build Your Positive Mind

A positive state of mind is paramount to your success, allowing you to carry through with any change you wish to make. It is the key to healing on all levels. Practitioners of widely varying systems of medicine, from Eastern to Western, have all noted the same thing: patients who have a positive attitude generally heal faster and remain disease-free much longer than those who do not.

1. Mimi Guarneri, *The Heart Speaks: A Cardiologist Reveals the Secret Language of Healing* (New York: Simon and Schuster/Touchstone, loc. 788, Kindle version), 2006.

Our mind is a very special entity. It has tremendous power and can contribute both positively and negatively to our health. If used to create positive changes, the mind can help heal many illnesses, whether psychological, physical, or spiritual.

Changing the mind can change behavior; changing behavior can change health, relationships, and life circumstances.

A positive mind makes positive physical changes: relaxed muscles, reduced heart rate and blood pressure, balanced metabolism and blood sugar, and improved production of digestive enzymes. A negative mind produces negative physical results: tight muscles, irregular or fast heart rate, elevated blood pressure and blood sugar, low energy, poor metabolism, decreased enzyme production, and difficulty sleeping.

Some of these negative physical states had a purpose in the past. It would have been an advantage to have elevated heart rate, blood pressure, and blood sugar when running from a predator or combating a foe. This physical state, caused by the release of stress hormones such as adrenaline and cortisol, is known as the fight-or-flight response. It was instrumental to our survival as a species, but in modern-day life we often do not allow ourselves to recover from these extreme episodes. We subject ourselves to many daily stressors, strive to meet sometimes unrealistic expectations, and often fail to nourish our bodies and minds. Physiologically, we are forever preparing for the next battle, just as our ancestors were; however, the constant secretion of these stress hormones can be detrimental to the body and the mind.

Your mind not only affects these physical elements but also influences the social, behavioral, and interpersonal aspects of your life. It goes without saying that most people prefer the company of positive individuals. A positive mind involves love. Positive individuals often exude love. Love brings joy, healing, and happiness. Giving love and receiving love both arise from a positive state of mind. Love does not have conditions or bias. Love involves giving, selflessness, compassion, and kindness. Love produces healing results through a sense of inner peace. You love your family and your friends, but it is the love and compassion you give to yourself that will make the difference in your healing journey. It

will allow you to develop a positive mind and lead a healthy life by quieting the fight-or-flight response and decreasing the release of stress hormones.

A positive mind that is calm and compassionate can help control emotions and cravings. This is why some people are better able to manage stress and achieve their objectives. A positive mind can improve your mental ability, concentration, and determination; however, other aspects are involved in reaching your goal.

Every completed action, such as altering habits, is predicated on making a decision to change and then actually carrying out that decision. A person's ability to follow through on resolutions can be influenced by many things. Although many emotional components are involved, successfully making profound behavioral changes is not a matter of willpower alone.

From a Western perspective, making lifestyle changes requires not only desire and determination but also healthy brain chemistry. The compounds that convey messages throughout your brain and body are called neurotransmitters. Neurotransmitters are influenced by many factors, such as sleep patterns, exercise, nutrition, and meditative practices like qigong and tai chi.

Dopamine is the neurotransmitter that is released when you perform any action that results in a feeling of accomplishment. Any such pleasurable activity increases the secretion of dopamine. You can use this reaction to your advantage when trying to reinforce behavioral changes. Every time you complete a questionnaire or exercise in this book, reward yourself. The reward could be large or small. It may help if the reward reinforces the behavior you are trying to reinforce; for example, downloading great new music for your workout or purchasing a fancy kitchen gadget to prepare new, healthy recipes.

The purpose of the reward is to increase dopamine release. Then you will want to take the next step in your transformation. Pamper yourself with larger rewards for each accomplishment. If you never find time to read, curl up with a good book. If you love to paint, enroll in an art class. Play sports with friends, treat yourself to a movie, or purchase a new item

of clothing. All these sorts of activities will release dopamine, and you will want to continue on your healing path. Every time you reward yourself for performing a positive behavior, you will strengthen the association between that behavior and a feeling of well-being. You will reinforce positive, healthier habits.

Western neuroscientists have observed that positive reinforcement actually changes the way your brain functions. Using special magnetic resonance imaging studies called functional MRIs, researchers have shown that people who practice this technique increase the number and activity of neural connections in various parts of the brain. They are, in fact, changing their minds. This property of the brain is called neuroplasticity, and results from studying it are altering the way conventional medicine looks at the brain, from both the physiological and psychological point of view.²

From an Eastern perspective, successfully making changes is a matter of common sense. Food, rest, activity, and self-reflection must be balanced to lead a healthy life. In today's hectic world, we may need some reminders about how to build a positive mind to achieve physical, emotional, and spiritual equilibrium. To this end, we have created a series of home study activities for building a positive mind.

The mind and body are intricately intertwined. Any variation in one aspect will cause changes in the other. This is why building a positive mind will have such an important effect on your body. The question is, what can you do to alter internal processes on such a deep level? There are three interconnected ways to approach this task:

- Change the way you *breathe*.
- Change the way you *think*.
- Change the way you *act*.

The following pages are full of written exercises to guide you through this transformation. While some space is provided for short answers, we

2. Norman Doidge, *The Brain That Changes Itself* (New York: Viking/Penguin, 2007), 11.

General Principles of Self-Healing

ULTIMATELY, THE SUCCESSFUL TREATMENT of cardiovascular disease, in fact all disease, depends on consistent self-care. Even if you are taking medications for these conditions, you must be attentive to your body, mind, and spirit on a daily basis. Medications must be taken regularly without skipping doses, and doctors' appointments should be kept. There is a lot that your health-care provider can do, from arriving at a correct diagnosis to arranging specialty and support services.

But there is even more that you can do for yourself. We all know that eating nutritious foods, not smoking, exercising regularly, sleeping adequately, and managing stress levels can lead to a healthier life. In fact, the World Health Organization (WHO) and Centers for Disease Control (CDC) have determined that by exercising more, eating better, and not smoking, 40 percent of cancers and 80 percent of adult-onset diabetes and heart disease could be prevented.¹ Sleep deprivation and life stress have each been shown to contribute to the incidence of chronic illness, so sleeping well and managing your stress can decrease your risk for such diseases.

Taking care of yourself requires determination. Every day you will be faced with choices about what foods to buy, how to cook them, how

1. Kenneth Thorpe and Jonathan Lever, "Prevention: The Answer to Curbing Chronically High Health Care Costs (Guest Opinion)," May 24, 2011, <http://www.kaiserhealthnews.org/Columns/2011/May/052411thorpelever.aspx>.

much to eat and how to exercise and for how long. You also make choices about whether to go to sleep at a reasonable hour or stay up and surf the internet. You choose whether to manage your stress by meditative practices or dangerous habits such as smoking or excessive alcohol consumption. Every decision you make matters. Your doctor can give you advice, but ultimately, you must decide for yourself and act on those decisions. No one else can do it for you.

If you have already established these healthy habits, congratulations! You are stacking the odds in your favor. The likelihood that you will develop a lifestyle-related chronic illness is at least half what it would be otherwise. As we have seen, even conditions like heart disease can be improved through lifestyle modification.

If you feel there is room for improvement in the way you eat, exercise, and manage your stress, now is the time to gear up and get going. In our first book, *True Wellness: How to Combine the Best of Western and Eastern Medicine for Optimal Health*, we devoted a whole chapter to the process of change, setting goals, and taking action to achieve those objectives. We have found that one of the most useful tools you can use to establish new habits is a checklist. There is nothing particularly glamorous or high-tech about a checklist, but for many people, it is invaluable. With a checklist, you can see concretely what you have or have not done during the course of your week. If you plan to practice qigong three times a week, you can see as the days pass whether you will meet that goal. If you are honest, you will see the number of times you meditated or went to the gym, how many vegetables you ate, or how much water you drank. Many people, when they start using a checklist, are astonished at their own lapses. We often convince ourselves that we are doing all we can to achieve optimal health, when really we are falling short of the mark. This sort of wishful thinking is very common.

The beauty of a checklist is that it gives you a systematic way of changing your behavior and developing consistency. The checklist has become integral in air-traffic safety procedures and in hospital operating rooms. Its use has improved outcomes in these industries where lives hang in the balance. It is not being too melodramatic to say that

both the quality and quantity of your years on Earth depend on establishing habits that maximize your physical, emotional, and spiritual health.

Decades of medical research show that most chronic illnesses are lifestyle driven and that the underlying physiological problem in these conditions is chronic inflammation. Many studies demonstrate that eating a minimally processed plant-based diet; meditating; practicing qi-gong, tai chi, or yoga; exercising regularly; and getting adequate sleep all decrease chronic inflammation. Using the True Wellness Checklist can effectively support your shift toward healthy lifestyle, decrease chronic inflammation, and reduce your risk of developing many chronic conditions.

The True Wellness Checklist

Instructions for Use

The True Wellness Checklist is a compilation of recommended actions that are associated with optimal health. These actions form the basis of disease prevention in both Eastern and Western medical systems. Meditation, qi-gong, cardiovascular exercise, and resistance training should be incorporated into everyone's healing plan. Optimizing your sleep can improve your physical and emotional health. Sleep has an enormous effect on all chronic conditions. This is why we have included in this custom version of the True Wellness Checklist measures you can take to improve the quality and quantity of your sleep.

Many people have food sensitivities, allergies, or individual preferences; therefore, the dietary recommendations on the checklist form the essentials of a vegan regimen. You can add servings of meat, fish, and/or dairy, depending on your tastes or requirements. The majority of your food should be plant-based. If you do eat animal products, your plate should be filled three-quarters with plants and only one-quarter with animal protein. Choose whole foods over processed foods. Minimize sweets, but on occasion enjoy chocolate made of at least 70 percent cacao.

Approximate serving sizes

Vegetables	1 cup raw vegetables, ½ cup cooked vegetables
Fruit	1 medium piece of raw fruit, ½ cup canned fruit, ¼ cup dried fruit
Nuts	½ cup
Beans/Legumes	½ cup cooked
Whole Grains	1 slice of bread, ½ cup cooked grains, 1 ounce dry cereal
Red Meat, Poultry	cooked, roughly the same size as a deck of cards
Fish	uncooked, 8 ounces (no more than 3x/week because of heavy metals)
Dairy	1 cup of yogurt, 1 cup of milk, 2 ounces of cheese
Eggs	1 egg
Oils	extra virgin olive oil (cooking/dressings), flaxseed oil (dressings)

About the Authors

Dr. Catherine Kurosu

Born, raised, and trained in Canada, Dr. Catherine Kurosu graduated from the University of Toronto School of Medicine in 1990. She completed her internship and residency at the same institution and qualified as a specialist in obstetrics and gynecology in 1995. Dr. Kurosu has studied and worked in Canada, the United States, Mexico, and



Monica Lau Photography

Chile. Through her travels, she has learned that there are many ways to approach a problem and that the patient usually understands their illness best. By combining the patient's insight with medical guidance, effective treatment plans can be developed.

In 2006, Dr. Kurosu became a diplomate of the American Board of Holistic Medicine, now known as the American Board of Integrative Holistic Medicine. In 2009, she became certified as a medical acupuncturist through the David Geffen School of Medicine at UCLA and the Helms Medical Institute. Dr. Kurosu became a member of the American Academy of Medical Acupuncture, then a diplomate of the American Board of Medical Acupuncture, which confers this title to practitioners with increasing experience.

Since then, Dr. Kurosu has completed a master of science in Oriental medicine, graduating from the Institute of Clinical Acupuncture and Oriental Medicine in Honolulu. In 2015, she became a licensed acupuncturist and in 2018 a diplomate in Oriental medicine through the National Certification Commission for Acupuncture and Oriental Medicine.

Dr. Kurosu now lives on O'ahu with her husband, Rob, and daughter, Hannah, where she practices integrative medicine, blending Western and Eastern approaches to patient care.

Dr. Aihan Kuhn

A graduate of Hunan Medical University in China (now called Xiangya Medical School) in 1982, Dr. Aihan Kuhn has oriented her focus to holistic healing since 1992. During many years of practice, she has accumulated much experience with holistic medicine and achieved a great reputation for her patient care and education work. Her patients benefit from her many important tips for self-improvement in their physical, emotional, and spiritual well-being, as well as simple and easy healing exercises to enable them to participate in healing. Dr. Kuhn incorporates tai chi and qigong into her healing methodologies, changing the lives of those who have struggled for many years with no relief from conventional medicine. Dr. Kuhn provides many wellness programs, natural healing workshops, and professional training programs, such as tai chi instructor training certification courses, qigong instructor training certification courses, and wellness tui na therapy certification courses. These highly rated programs have produced many quality teachers and therapists. Dr. Kuhn is president of the Tai Chi & Qi Gong Healing Institute (www.taichihealing.org), a nonprofit organization that promotes natural healing and prevention.

Dr. Kuhn lives with her husband, Gerry Kuhn, in Sarasota, Florida. For more information, please visit her website at www.draihankuhn.com.



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Combine the best that Western and Eastern medicine can offer in the understanding, treatment, and prevention of heart disease and hypertension

"Clear, straightforward and well referenced—I recommend it to all."

—Wayne Jonas, MD, author,
How Healing Works

"[The authors] combine their knowledge and experience to empower patients in taking charge of their own health."

—Rosa N. Schnyer, DAOM,
IFMCP, LAC

"A great read for both motivated patients and practitioners of Western as well as Eastern medicine."

—Bart G. Denys, MD, FACC, FSCAI

"A detailed and appealing work on wellness."

—KIRKUS Reviews

"As a primary care physician, I highly recommend this book."

—Kimberly Rogers, MD,
Diplomat, American Board of
Lifestyle Medicine

True Wellness for Your Heart is a step-by-step guide to optimal cardiovascular health. The authors recognize that the conventional way of managing heart disease and hypertension may not be sustainable for many who continue to struggle with these problems. In their own practices they have discovered a path to optimal heart health.

Even modern heart specialists acknowledge that a mechanistic approach to treating heart disease is insufficient. Many have written persuasively about the role *emotional, physical, and spiritual health plays in the healing and even prevention of cardiovascular disease.*

With this book you will

- Discover the strengths and benefits of both Western and Eastern medicine
- Combine Western and Eastern healing methods for cardiovascular health
- Find actionable and practical advice to help you put knowledge into practice
- Learn to create a multidisciplinary care team for a strong alliance between your Western health-care providers and Eastern practitioners

True Wellness for Your Heart encourages individual responsibility and prepares you to take the first step on your healing journey. By combining ancient wisdom, cutting-edge scientific discoveries, and practical advice, this book will lead you through a transformation to true well-being in body, mind, and spirit.

MONICA LAU
PHOTOGRAPHY



Catherine Kurosu, MD, LAC, is an obstetrician and gynecologist who now specializes in acupuncture and Eastern medicine. She lives and practices medicine in Kailua, Hawaii.

CHRISTINE NICOLE



Aihun Kuhn, CMD, OBT, is a medical doctor trained in both Western medicine and traditional Chinese medicine. She lives and teaches in Sarasota, Florida.

Look for other books in the True Wellness series focusing on specific ailments and providing actionable tools you can use for integrative health care.

Cover design: Axie Breen. Cover images: Shutterstock/ Olga Axyutina and Horenko



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