# Deep Resilience

The surprising science behind the secrets of ancient practice: Your key to long life and a healthy mind and body

### Introduction:

Toxins, pandemics, autoimmune diseases, not to mention cancer and heart disease are a part of modern life and confront us daily. We spend billions on healthcare and yet by some estimates that same healthcare is one of the top sources of injury and death.

But is there is a better way? In "Deep Resilience" we will consider the principles of ancient medical practice as seen through the eyes of modern science as a compelling and elegant strategy for health and longevity. We are all, to a degree, creatures of habit. Our expectations set by what we have done before and how we have thought and been taught. But the world of Deep Resilience, is a place where by staying well, staying balanced, we can better avoid the dangers that surround us, feel better and live long. Our journey begins with a few of the basic tenets of Chinese Medicine but first, the fable of The Three Doctors.

## The Three Doctors

In Ancient Chinese Medicine the teaching goes that the best, most sought after doctor, Doctor #1, was he who kept the patient well. The second best doctor (Doctor #2) was he who was able to cure the patient when sick. The worst doctor (Doctor #3) was he who made the patient worse and was called "butcher" behind his back. (I call the Doctors "he" since all were male back then.) This story represents the fundamental concept in Chinese culture and health of staying well. When I learned this fable during my training it seemed a quirky bit of Chinese lore and I filed it away as such.

But I never forgot about those three doctors. The teaching was so captivating. Considering the perils of modern life, rife with toxins and pollutants and stress, it seems impossible to control for all of them. What if, instead, we make the body stronger and sturdier to ward off problems before they can even take hold? What if there was a way to stay healthy, stave off illness, and- most tantalizing-live long? Wouldn't that be a radical sort of prevention? In pursuit of this radical idea we will consider three

principles that help us to bridge the explanatory gap between Ancient teachings and modern science. They are Balance, Hormesis and All Spinning Together.

#### Balance

Balance is a key concept in Ancient Chinese Medicine, with yin/yang being a recognizable fixture in current conversation. Just as a centrifuge, or washing machine needs to be balanced to spin efficiently and not start rocking wildly and spin out of control, our bodies and physiology also. And we find the principle of balance alive and well in the modern concept of homeostasis. Homeostasis is the process by which a biological system maintains equilibrium through many regulatory mechanisms. Multiple sophisticated feedback loops ensure that the body regulates everything from temperature, to heart rate, to immune function and keeps the body operating smoothly without spinning out of control. Doctor #1 knows this secret. He does his best to "do no harm" and uses time honored techniques to keep things balanced, gives advice on avoiding damaging habits and how to reduce stress. But to keep the system resilient and tough, ready to respond to toxins, illness and heart break, small challenges are key. These challenges are called hormesis.

# Hormesis: Inviting Small Challenges To Keep the System Spinning

The term hormesis comes originally from the ancient Greek hormáein "to set in motion, impel, urge on"i. Hormesis is the introduction of low-grade challenges to the system, that stress it without damage. Examples of hormesis are exercise, stretching and calorie restriction. Acupuncture qualifies as a hormetic challenge also. One would intuitively think that avoiding stressors, mental and physical altogether would lead to a safe, long, and healthy life. But not so. Just as a hothouse flower cannot survive if placed outside, so, too the body needs to nudged and challenged to be at its toughest to truly prevent illness and have optimum health. And, as is taught in Chinese Medicine, in becoming stronger in one area you become stronger in others too. It all spins together.

# It all spins together

When you treat one symptom or sign of imbalance, it can stabilize the entire body or system. Consider, for example, the autonomic nervous system, part of the body's stress response. This yin/yang system balances fright/flight and rest/digest aspects of our unconscious physiology and represents a crucial

response to challenges. Autonomic balance affects every aspect of our functioning from gut health, to mood, to immune function. We also know that inflammation, enormously sensitive to the autonomic nervous system, has a detrimental effect on cardiac disease and cancer. These two huge destabilizers of the body's balance are in the top 3 causes of the ultimate spinning out of control in the U. S., ie death. Therefore, small stressors or needling in one area can affect autonomic balance which then can improve inflammation and immunity can then lead to outsized and global results on wellbeing, health and longevity. If you calm anxiety, your immunity improves, if your immunity improves, you digest better etc.. It all spins together.

## Modern Evidence for Ancient Practice

What has changed is that we are now better able to quantify and visualize subtle physiological changes because of advances in modern science, computing capabilities, and the emerging fields of complexity science. So many of these ancient concepts can now be quantified, they are not abstract and do not need to be taken on faith. The invisible has become visible.

The first main task of *Deep Resilience* is to convince you that there is good reason and scientific proof for the ancient concept of balance leading to well-being and health. From pain to the immune system to mood, the science shows that subtle feedback systems can be nudged and harnessed to keep your system spinning smoothly. This can potentially lead to a radical prevention, keeping the body tough to avoid the spinning out of control that requires drastic interventions.

The second task of *Deep Resilience* is to introduce the counterintuitive strategies of hormesis in addition to Dr. #1's admonition to reduce stress. The current fields of Immunology and Longevity science give us insight into the powerful workings of the elegant feedback systems that work to maintain homeostasis, or balance. This balance keeps us resilient and tough in the face of life's challenges.

The third and perhaps most important task of Deep Resilience is to suggest a dramatically different medical model for health and treatment. This is no small task. From deep in our evolutionary DNA it has served us to distrust the unfamiliar. Our immune system rejects foreign matter, just as emotionally we can reject foreigners or new ideas as dangerous. As Kuhn, the towering Philosopher of Science said, before a new scientific idea or paradigm can be truly accepted, the old generation must die off so a new generation of scientists, not set in their ways, can truly accept and build on

that idea. It is my hope that by introducing these ancient principles through the modern eyes of science, these ideas will become familiar, feasible, and above all *useful* to the reader. Though there is still an enormous and vital role for an army of Dr.#2's, there is a desperate need for Dr.#1's. Through harnessing ancient practices and modern strategies there is potential for radical prevention and longevity for developing deep resilience of body and mind.

<sup>i</sup> wikipedia