

Reiki Can Heal by Modifying Gene Expression

BY MARTHA O. LACY. M.D.

AM A PHYSICIAN, a board-certified hematologist practicing in a large academic medical center. My focus is on blood cancers, particularly multiple myeloma, and bone marrow transplant. I have witnessed incredible advances in my field. Blood cancers see innovative treatments approved every year. These treatments have greatly improved the average length of survival. Given this, why did I become interested in complementary approaches to health care?

I have always yearned to care for the whole person to promote well-being in all aspects of life. Although patients are living longer and better with modern advances in therapy, fear and anxiety and pain still plague them. Modern medicine needs a broader view—care directed at body, mind, and spirit. I have always believed in learning from my patients, and, in this aspect, I have had no better teachers.

A patient undergoing a bone marrow transplant first introduced me to shamanism. Fascinated, I began studying it. Many of the teachers and friends I met also practiced Reiki as well as shamanism. I pursued training in Reiki, thinking it would help my shamanic skills, but Reiki, in its own right, enthralled me.

I trained in Usui/Holy Fire® III Reiki with Colleen Benelli and Jill Thiel of the International Center for Reiki Training. I love the beauty, grace, power, and simplicity of Reiki. My teacher, Colleen, often states Reiki "heals and reveals." It heals the trauma and reveals the empowered self. My Holy Fire® III Karuna Reiki® led me to gain new insight into what this phrase means. As a medical professional, I have been shy about being open with my colleagues and patients about my interest in alternative therapies but, I have recently realized I am in a unique position to be a bridge. I can introduce Reiki to medical colleagues, and I can use my medical knowledge to help colleagues in Reiki practices.

Body, Mind, Spirit, and Science

Science is increasingly recognizing the link between body, mind, and spirit. It cites stress as a significant cause of disease. Scientific disciplines such as psychoneuroimmunology (PNI) and psychoendoneuroimmunology (PENI) describe the ability of consciousness and emotions to leave their mark in the physical body. PNI studies the interactions between the nervous system and the immune system and how psychological factors affect them. PENI also includes the interactions with the endocrine system that governs chemical and hormonal messengers in the body.

If you search these two terms on Google Scholar, you will discover hundreds of published articles. Further evidence that mainstream medicine is recognizing the body/mind/ spirit link is the existence of the National Center for Complementary and Integrative Health (NCCIH). It is the United States government's lead agency for scientific research on complementary and integrative health approaches, and one of the 27 institutes and centers that make up the National Institutes of Health (NIH). The NCCIH's mission is "to define, through rigorous scientific investigation, the usefulness and safety of complementary and integrative health interventions and their roles in improving health and health care (National Center for Complementary and Integrative Health)."1 The NCCIH classifies Reiki as a biofield therapy. Much clinical evidence for biofield therapies suggests that they are effective in symptom management for pain and cancer, along with diseases like arthritis, dementia, and heart disease.

A recent review describes a possible mechanism of Reiki. "Reiki deals with energy fields, biofields, and energy flow. Reiki potentially involves a cell-to-brain connection that is capable of changing brain states and influencing physiological processes. Given that the brain is a malleable organ and that the patterns are changeable, Reiki may help relieve deep emotional past patterns and usher in the positive energy necessary to facilitate healing. The recruitment of energy as the basis of healing in modalities such as Reiki, in conjunction with the underlying plasticity of the brain, suggests that Reiki's ability to heal depends on an epigenetic mechanism."²

The Body as Cells

We have all heard the famous quote, "It takes a village..." but have you ever stopped to realize you are a village? Cells compose everything in your body. Scientists now estimate the average human body is approximately 30 trillion cells.³ Not only are you composed of many cells, but the cells are all very specialized. There are approximately 200 distinct types of cells in the human body, each performing a unique function. Besides your cells, your body also contains bacteria on the skin, in the mouth and the gastrointestinal tract. The number of bacterial cells inside a human body is estimated at around 38 trillion. This number means the average person has approximately 68 trillion cells in or on the body.

How Do Cells Differentiate?

Your skin, hair, fat, bones, muscles, vital organs, and blood cells all derive from a single embryonic stem cell. All the cells in your body contain the same genetic material, your DNA. Your DNA is unique to you and distinguishes you from all the other humans on the planet. However, all cells in your body have identical DNA. How do they form into such different cells and structures? We call the process by which generic embryonic cells become specialized cells cell differentiation. Differentiation occurs numerous times during development, eventually leading to a complex system of tissues in cell types. Cells differentiate through a process called gene expression, the specific combination and sequence of genes that turn on and off.

What Is Gene Expression?

Every cell has all the machinery to build the proteins that sustain cellular functions. DNA is the source code for all proteins in the cell. It is packaged in chromosomes. Humans have 23 pairs of chromosomes, each consisting of tightly wound strings of DNA. Every cell in the body contains all 23 pairs. When a protein is needed, the DNA in the chromosome that codes for that protein unwinds and opens. The DNA is transcribed onto RNA. The building blocks of RNA and DNA are called nucleotides. The RNA is read by organelles called ribosomes that translate the code to produce proteins.

Mutations

When I first trained in medicine, there was a focus on describing mutations in DNA as a cause of disease. If the DNA is damaged or changed, the result can be a mutation,

Table 1

Proposed Mechanisms of Epigenetics, Adapted from "Epigenetics and Its Clinical Applications." 5

- **DNA methylation:** DNA methylation is the most common and extensively studied type of epigenomic marking. A "methyl" group refers to a carbon atom bonded to three hydrogen atoms (CH3). A methyl group can attach itself to DNA. The more methylated a gene is, the less active it tends to be.
- Histone modification: DNA is bundled in a class of proteins called histones. Histone proteins act to package the DNA, which wraps around eight histone molecules, into chromosomes. Histone modifications include the addition or removal of chemical groups to the positively charged histone protein tail. These modifications can change chromatin structure, thus altering gene expression.
- Non-coding RNA/RNA interference: A non-coding RNA is an RNA molecule that is transcribed from DNA but not translated into proteins. Approximately 80% of the human genome has been transcribed, but only 1-2% codes for proteins. In the 1990s, the process of RNA interference was discovered. This process occurs when short strands of RNA can silence a gene containing the same sequence of nucleotides.
- Imprinting: In humans, the cells possess two copies of the genome, one inherited from the father and one from the mother. For most genes, expression occurs from both alleles simultaneously. However, a small proportion (<1%) of genes are imprinted, meaning that gene expression occurs from only one allele.
- Nucleosome remodeling: Nucleosomes are molecules with DNA wrapped around them that regulate gene expression. Enzymes known as chromatin remodelers promote or repress gene expression by determining nucleosome positions and how tightly they are packed in DNA.

a permanent change in the source code. We can inherit mutations in which case the mutation is present in all cells in the body. We call this type of mutation "germline," and it refers to mutations passed from one generation to the next through the sex cells (eggs and sperm). Mutations can also occur in cells that already exist in the body and are introduced when that cell tries to replicate itself. That type of mutation only occurs in the progeny of that cell and would not be found in all the other cells in the body. Mutations often, but not always, lead to disease. Some mutations can be silent without evident ill effects.

What Is Epigenetics?

Fortunately, mutations that lead to disease are relatively uncommon. The vast majority of the time, our cells can replace themselves without introducing these errors in the source code. It is becoming increasingly apparent that understanding the causes of health and disease lies in understanding what regulates the expression of genes. Why does a gene turn on? How long does it stay on? What turns it off? Are there changes to the code after it is transcribed?

Understanding these processes is the field of epigenetics. Epigenetics determines what the cell will be. The genetic material in a liver cell is identical to the genetic material in a heart cell. Which genes express and when they express determines the difference. So, epigenetics is fundamental to achieving states of health or disease. According to Merriam-Webster's dictionary, epigenetics is "the study of heritable changes in gene function that do not involve changes in DNA sequence." In other words, epigenetics refers to what turns genes on and off.

How Epigenetics Works

Epigenetic modifications of gene expression occur in response to lifestyle and environmental factors, including diet, stress, exposure to toxins, and certain drugs. We can describe several mechanisms.⁴ These include DNA methylation, histone modifications, non-coding RNA/RNA interference, imprinting, and nucleosome remodeling. I outline details about these mechanisms in Table 1.

How Does Reiki Influence Epigenetics? Insights from Karuna Reiki®

How does epigenetics relate to Reiki? Fortunately, we need not know the detailed mechanisms of how the cells

Table 2

Suggested Meditation

- Sit quietly in a comfortable position with your hands in Gassho. Concentrate on the space between your hands until you feel Reiki begins to flow. Then put your hands comfortably on your body.
- **2.** Draw the Holy Fire® symbol or another Reiki symbol in front of you and hold this image as you go inward.
- **3.** Drop into your body until you see yourself as individual cells. Invite in Reiki, and whichever symbols call to you. Set the intention to have Reiki use epigenetics and endogenous healing to restore health and vitality. Allow the symbols to interact with your cells. You do not need to direct this interaction. The symbols and your cells know what to do. Simply hold the intention and create space for the process to unfold.

When I do this meditation, I do it systematically over each chakra. I start with my intentions focused on my root chakra. I use my intuition to tell me when to move to the second chakra, and so on.

turn specific genes on and off. The body is the seat of the subconscious mind, and it does a beautiful job of implementing the desired changes. Reiki is spiritually guided life-force energy. It knows how to interact with the body to sustain life.

During my Holy Fire® III Karuna Reiki® Master class, we received eight new symbols in a process called Ignitions. During my Karuna Reiki® Ignitions, I was given a vision of how Reiki interacts with my body at the cellular level. I traveled within until I saw my body cells arranged around me as musicians in a symphony orchestra. I heard the word "epigenetics." One by one, the Karuna Reiki® symbols dropped in. I saw the symbols as orchestra conductors. Each symbol began conducting a portion of the cellular orchestra. I heard otherworldly music as my cells resonated. Fields shifted; my cells began to glow, expressing a new spectrum of light. The

symbols continued to conduct, giving instructions to the organelles in the cells, changing cellular structures, upgrading electromagnetic fields, offering what I no longer needed to Holy Fire.

My cells resonated with love and joy. I was upgraded with new strength, skills, and a greater ability to hold higher frequencies. As I have integrated the lessons gleaned from this vision, I have a new understanding of how Reiki heals and reveals. The Reiki energy interacts with cells and uses cell machinery and epigenetics to activate and repress just the right genes for cellular-level healing. Once free of injuries and states of disease, Reiki goes beyond healing to reveal possible new states of being. It unlocks brilliant cellular memory and reveals gifts and talents. The imagery of an orchestra conductor suggests Reiki entrains the cells to vibrate at a new frequency, revealing gifts and talents and enabling the recipient to live to a higher potential. The imagery also hints at the synergy between Reiki and all types of sound and vibrational healing. I believe all the symbols do this, not just the Karuna Reiki® symbols. I have integrated this knowledge into my morning meditation practice.

How Can This Work for You?

How can you make this work for you? Shortly after my Holy Fire® III Karuna Reiki® class, I came down with influenza. Influenza is a viral illness characterized by sudden onset of fever, cough, sore throat, nasal congestion, muscle aches, headache, and fatigue. The acute part of the illness usually lasts five to seven days. The cough can persist four to six weeks after the infection has resolved. My medical practice involves work with patients with compromised immune systems. I was concerned I would need to be off work for some time to protect my patients. I remembered the insights I gained during my Ignitions.

I practiced self-Reiki combined with meditations in which I visualized working with the Reiki symbols, asking for the epigenetic changes to activate my endogenous healing capacity. I visualized my immune cells awakening and relieving me of the infection. I asked Reiki to heal my injured cells and reveal my healthy cells. I was delighted to find my fever resolved in less than 24 hours, and I recovered much faster than expected. I learned a valuable lesson about trusting the body to heal itself, accelerated with the use of Reiki.

Do you have trouble with Type 2 diabetes? That type of diabetes is caused by cells becoming resistant to insulin. As you do self-Reiki, try using the intention of activating the genes that will make cells more responsive. Allow Reiki to uncover the cellular memory and reveal the healthy balanced system. Autoimmune disease? Visualize the cells in the immune system, becoming calmer. Irritable bowel? Imagine the cells lining the intestines laughing. I am not suggesting you do these practices instead of seeking medical help but in addition to medical treatment.

I have included descriptions of what happens on a cellular basis for your knowledge and understanding, but do not stress about remembering the mechanisms. Reiki knows what it needs to do, and your cells understand how to respond. Just set the intention, activate Reiki, and let Reiki and your body take it from there.

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Endnotes

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