THE MIND-BODY CONNECTION: HOW THE POWER OF OUR THOUGHTS AND BELIEFS AFFECT OUR PHYSICAL AND MENTAL HEALTH

ANDREW NISH MD
MEDICAL DIRECTOR
JOHN STODDARD CANCER CENTER
The Western Paradigm Turned Upside Down

Current belief: We are frail biochemical machines with our destiny controlled by our genes.

The New Reality: We are powerful creators and masters of our lives and are able to create lives overflowing with peace, happiness, health and love.¹

WE ARE NOT SUBSERVIENT TO OUR GENES
Virtually every cell in the human body possesses the functional equivalent of our nervous system, digestive system, respiratory system, excretory system, endocrine system, musculoskeletal system, circulatory system, reproductive system, integument and even a primitive immune system. Thus the cell becomes a microcosm of study of the entire human body.

Current belief: DNA in the cell nucleus controls all functioning of the cell. The nucleus is the cell’s “brain.”

The New Reality: Cells (through the cell membrane) actively analyze thousands of stimuli from the microenvironment, seeking environments that support their survival while simultaneously avoiding toxic or hostile ones. The cell membrane is the actual “brain” of the cell, with environmental signals controlling expression of genes and behavior of the cell.
The Cell

Current belief: If a cell or being is sick then there is something wrong with that cell or being.

The New Reality: If a cell is ailing, first look to the cell’s environment, not to the cell itself.

Since the dawning of the genetics revolution we have been programmed to accept that we are subservient to the power of our genes. The reality is that less than 2% of all disease is due to a single gene disorder. When a gene product is needed (usually a protein), a signal from its environment, not an inherent property of the gene itself, activates expression of the gene.\(^2\)

Environmental influences, including nutrition, stress, emotions, thoughts and beliefs can modify how genes are expressed without changing the basic blueprint. EPIGENETICS - “control above genetics”. These modifications can be passed to future generations just as surely as DNA is passed on through the double helix.\(^3\)
The Cell Membrane

Cell membrane - A thin membrane enclosing the cytoplasm and organelles of a cell.

Current belief: A semipermeable membrane that allows chemicals into and out of the cell.

The New Reality: The mechanism by which the cell and body translates environmental signals into function and behavior.¹ The response of the cell membrane to environmental signals controls whether we are well or sick.
The Cell Membrane

Within the cell membrane there are 2 types of proteins: Receptor proteins are the cell’s sense organs. They function as molecular nano-antennas tuned to respond to environmental signals. Some receptors extend inward to monitor the internal signals while others extend outward from the cell surface monitoring external signals. Effector proteins translate environmental signals into cellular behavior.

Receptor proteins respond to not only chemical signals (hormones, drugs, etc.) but also respond to vibrational energy fields such as light, sound and radio frequencies. Biologic behavior can be controlled by invisible forces including thoughts and beliefs just as readily as biologic behavior can be controlled by physical molecules. Thus the basis for how our thoughts and beliefs affect our physical and mental health.¹
The Cell Membrane

The cell membrane is a homologue (equivalent to) of a computer chip. Both are programmable and the programmer lies outside the computer/cell. Biologic behavior and gene activity are dynamically linked to information from the environment which is downloaded into the cell through cell membrane proteins. This means we have the ability to edit the data we enter into our biocomputers through thoughts, beliefs, lifestyle and habits. We become masters of our fate and not victims of our genes.⁴
The Flow of Information: Newtonian vs Quantum

Current belief: Biochemical reactions responsible for life are represented by a Newtonian linear flow of information from A to B to C to D to E. This model suggests that if there is a problem in the system, as evidenced by disease or dysfunction, the source of the problem can be attributed to a malfunction in one of the steps along the chemical pathway. The solution then becomes a chemical (drug) theoretically repairing the defective single point and restoring health.

The New Reality: Flow of information in a quantum universe is holistic. Cellular constituents are woven into a complex web of cross talk, feedback and intercommunication loops. The quantum perspective reveals that the universe (including all living beings) is an integration of interdependent energy fields that are entangled in a meshwork of interactions. The bottom line is that all our cells are interconnected and in fact we are all interconnected with each other as well as everything in the universe.¹
The Flow of Information: Newtonian vs Quantum

INFORMATION FLOW

A → B → C → D → E
Newtonian - Linear

A ↔ B ↔ C ↔ D ↔ E
QUANTUM - Holistic

Drosophila
Belief and Biology

1974 - Physicist C.W.F McClare showed that energetic signaling mechanisms such as electromagnetic frequencies are 100 times more efficient at relaying environmental information than physical signals such as hormones or neurotransmitters.⁶

2013 - Molecular biologist Victor Chaban demonstrated that nerve cells outside physical barriers influence the activity of nerve cells within sealed chambers. The implication is that nerve cells must be communicating with one another using a non-physical, energetic signaling mechanism.⁷

The first report of a non-linear communication system in a biologic system.
Belief and Biology

The physical body can be affected by the immaterial mind (your thoughts).

Thoughts, the mind’s energy, directly influence how the physical brain controls the body’s physiology.

It is important to shift our mind’s energy toward positive, life-generating thoughts and eliminate ever-present, energy draining and debilitating negative thoughts.¹

BUT

Be Mindful Of Your Thoughts

The energy of your thoughts can reach out across the Universe
Belief and Biology

The mere thinking of positive thoughts may not have any impact on our lives at all.

**Why??** We have 2 subdivisions of the mind - our conscious, “thinking” mind and our subconscious “stimulus-response” mind. Our subconscious mind is reflexive in nature and is not governed by reason or thinking.

The subconscious mind (our stimulus-response mind) is derived from instincts and learned experiences. The vast majority of thoughts in our subconscious mind is programmed by the age of 7 through the actions of our parents, teachers, family, community, past experiences and yes, marketers.

The subconscious mind dictates our behavior 95% of the time while the conscious mind dictates our behavior 5% of the time.\(^8\),\(^9\)

Hmmm, sounds like my destiny was programmed by my parents and experiences as a child.

**IT AIN’T NECESSARILY SO**
"We find that prenatal and perinatal experiences have a profound impact on the subsequent quality of health and human behavior; we see that life is a continuum which starts before conception, not after birth. During this formative period, parents and babies are not isolated from each other but fundamentally interconnected. A loving prenatal and perinatal experience inspires such things as bonding and sensitivity to others which have long-term consequences for both individual relationships and for society. Ultimately, womb ecology reveals itself in world ecology as the seeds of peace or violence are sown by parents, their models, teachers, and caregivers during pregnancy and birth."
~ Association of Prenatal & Perinatal Psychology & Health
Belief and Biology

Fortunately our conscious mind has the ability to be self reflective. It can observe any programmed behavior and consciously decide to change the program. We have the capacity to consciously evaluate our responses to environmental stimuli and change old responses anytime we desire. We are not stuck with our genes or our self-defeating behavior.¹

Disempowering programs in the subconscious mind can be rewritten by using techniques such as hypnosis, repetitive positive affirmations and new modalities referred to as energy psychology.¹⁰
Belief and Biology

Once the possibility and practicality of changing our subconscious beliefs is established, it becomes clear that we are no longer trapped in the automatic mindset of our past experiences which often drive self-limiting and self-defeating behavior. Instead we are free to change our perceptions and beliefs in order to create new mindsets and behavior that will generate sustainable success in our lives.¹
Thoughts and Emotions: The Energy and Molecules Behind the Scenes

Current belief - Chemicals in our bodies control our thoughts and emotions.
Fix a chemical deficiency = fix the thought or emotion.

The New Reality: Thoughts and emotions form a 2-way interplay with our brain and body either maintaining health or undermining it. Functionally this occurs through chemical and bioenergetic signals to our cells.¹¹

What this means: “Every change in the physiological state is accompanied by an appropriate change in the mental emotional state, conscious or unconscious, and conversely every change in the mental emotional state, conscious or unconscious is accompanied by an appropriate change in the physiological state” Elmer Green - Mayo Clinic
Thoughts and Emotions: The Energy and Molecules Behind the Scenes

Current belief: Molecules that transmit nerve signals (neurotransmitters) only exist at the nerve endings.

The New Reality: Neurotransmitters (information substances) occur throughout the body and brain and weave the body’s organs and systems into a single web that reacts to both internal and external environmental changes with complex, subtly orchestrated responses - the “psycho (mind)-somatic (body) network (Pert CB). This psychosomatic network is also influenced by shifts in energy in the environment."
Belief and Biology

**Placebo effect** - a beneficial effect produced by a placebo drug or surgery (a substance or treatment that has no intended therapeutic value), which cannot be attributed to the properties of the placebo itself and must therefore be due to the patient’s belief in the treatment. The mind, through positive suggestion, improves health.\(^{15,16}\)

**But there is also the nocebo effect**

**Nocebo effect** - an agent whose administration results in a noxious or detrimental effect on health that cannot be attributed to the properties of the substance or intervention itself. The mind, through negative suggestion, can damage health.\(^{13,14}\)
Belief and Biology

Let’s look at some examples:

2002 - an article titled “The Emperor’s New Drugs: An Analysis of Antidepressant Medication Data Submitted to the U.S. Food and Drug Administration”. Professor Irving Kirsch found that 80% of the response to medication was duplicated in the placebo groups. In over half of the clinical trials the drugs did not outperform the placebo.\textsuperscript{15}

Interestingly, the effectiveness of antidepressants have performed better in clinical trials over the years. Through direct pharmaceutical to consumer marketing of these “miracle drugs” we have even a stronger belief that they work.

2002 - an article entitled “A Controlled Trial of Arthroscopic Surgery For Osteoarthritis of the Knee” from the New England Journal of Medicine. There were 180 patients divided into 3 groups. The first group received surgery with meniscal shaving. The second group received wash out of the knee joint but no meniscal shaving and the third group had the standard incisions made but received nothing else. The groups that received surgery improved BUT the placebo group improved just as much as the other 2 groups. The power of belief that something will work.\textsuperscript{16}
Thoughts and Emotions: The Energy and Molecules Behind the Scenes

Eureka! Biological life is all about information exchange. We are all an intelligent system that involves a massive and simultaneous exchange of information between the mind and body.

Each of us is a dynamic system with a constant potential for change in which self healing is the norm rather than the miraculous.

Current belief: Chronic illnesses such as heart disease and cancer are seen as forces attacking the body, making us helpless victims.

The New Reality: Conscious intervention (through our thoughts, beliefs and emotions) can play an active role in health and wellness as well as the healing process.¹
Stress and the Stress Response: The Silent Killer

Homeostasis - a complex, dynamic equilibrium resulting in wellness of the organism

Stress - a state of mental or emotional strain which occurs when homeostasis is threatened or perceived to be so by internal or external forces. Stressors can be both physical and emotional with the magnitude and chronicity of the stressors being important in the body’s response.\(^\text{17}\)
Stress and the Stress Response: The Silent Killer

The human stress response was intended to react to acute, intermittent stress and not the chronic, unrelenting stress of today’s society.

When the stress response is triggered (by a physical or emotional stressor) the central nervous system upregulates to a state of arousal, vigilance and focused attention - the fight or flight response.

The stress response also affects many other systems: it stimulates the amygdala (a part of the brain associated with emotions - fear/anger), through the production of adrenaline; it stimulates glucose production in the liver with chronic stress leading to hyperglycemia (too much glucose) and hyperinsulinemia (too much insulin) leading to metabolic syndrome (obesity, high blood pressure, abnormal blood fats and diabetes). Hmm sounds like I am on the way to a possible heart attack, stroke or cancer.¹⁷
The stress response can suppress the immune system.

The stress response shunts blood away from the digestive tract as well as non-essential organs of reproduction.

Prenatal development, infancy, childhood and adolescence are times of increased vulnerability to stressors and can have a profound effect on growth and development, body composition, behavior, endocrine, metabolic, cardiovascular autoimmune and allergic disorders.

The stress response shunts blood away from the forebrain (the executive thinking portion of the brain) to our hindbrain (the portion of our brain controlling reflex actions). This results in more energy to react to a situation but at the cost of conscious awareness and thinking.\textsuperscript{17}
Stress and the Stress Response: The Silent Killer

Acute stress related diseases include:
Asthma attacks       eczema       hives       hypertensive or hypotensive attacks
migraine headaches       pain syndromes (abdominal, pelvic, low back)       GI
symptoms (pain, indigestion, diarrhea, constipation)
panic attacks and psychotic episodes

Chronic stress related disease include:
Anxiety       depression       cognitive dysfunction       fatigue
       cardiovascular disease including heart attacks and strokes       obesity
       metabolic syndrome       type 2 diabetes       sleep disorders       osteoporosis
       neurodegenerative disease       infections and autoimmune disorders

Dr. Herbert Benson from Harvard has concluded that chronic stress is responsible for up to 90% of all doctors office visits!!
Stress and the Stress Response: The Silent Killer

Fear kills: We are constantly besieged by fear: fear of losing our job, fear we will go broke, fear our child will not get into a good college, fear of illness, fear we will be shot, etc. In our society we are practically afraid of our shadow. Is this fear real or part of our subconscious programming? Most fears do not threaten our immediate survival and in fact are not a threat to our survival at all but they do activate the stress response, resulting in chronic elevation of stress hormones.

Self defeating thought patterns (I am not good enough, I am not thin enough ...) can create “amygdala hijacking”. The amygdala (our emotion processing center of our brain) kicks into action for “fight or flight” creating unacceptable levels of anxiety and fear at a subconscious level that negatively impacts our behavior and health. 10

STOP TUNING INTO THE NEWS!
Ask yourself, when was the last time the news made me feel good?
The Relaxation Response: The Antidote for Stress

Relaxation response - a physiologic response that is the opposite of the stress response (fight or flight), which results in decreased metabolism, decreased heart rate, blood pressure, respiratory rate and slowed brain waves. Described in the 1970’s by Dr. Herbert Benson.¹⁸

The relaxation response is the final common pathway of all mind-body therapies.

Watch a short video on the relaxation response by Dr. Herbert Benson
https://www.youtube.com/watch?v=nBCsFu0FRp8
The Relaxation Response: The Antidote for Stress

2 steps are required to elicit the relaxation response:
1) Repetition: the repetition of a word, sound, prayer, phrase or muscular activity.
2) Passive return: when thoughts unexpectedly intrude, there is a passive return to repetition.

The relaxation response is a state of relaxed passive attention to a repetitive or absorbing stimulus that turns off the "inner dialogue" decreasing the arousal of the SNS. It is focused and sustained awareness within an attitude of interest.
The Relaxation Response: The Antidote for Stress

Benefits of the relaxation response: muscle relaxation, quieter mind, decrease in negative emotions, increase in positive emotions and enhancement of creativity.

Multiple studies have shown that mind body interventions inducing the relaxation response affect gene expression and disease vulnerability by improving oxidative stress and associated cellular damage and inflammation - the root of most chronic diseases.\textsuperscript{20,21,22,23}

The mind and body are intricately connected. Thoughts and beliefs affect gene expression which affects expression of disease states. We truly are masters of our lives.
Mind-Body Modalities

Meditation

Yoga

Autogenics training

Biofeedback

Progressive muscle relaxation

Clinical Hypnosis

Guided imagery

Breathing

Forest Bathing (Shinrin yoku)
Mind-Body Modalities

“Breathing is the bridge between mind and body, the connection between consciousness and unconsciousness, the movement of spirit in matter.” Andrew Weil MD

Breath is a key to health and wellness.

Why is breathing special: it is the only body function you can perform consciously as well as unconsciously and it can be a completely voluntary or involuntary act, as breathing is controlled by 2 sets of nerves, the voluntary nervous system and the involuntary (autonomic) nervous system.27

Conscious breathing techniques can help you lower your blood pressure, lower your heart rate, increase blood flow, help with digestion and bring a sense of calm.26

Breathing has direct connections to emotional states and mood. Note your breathing pattern when you are upset or angry: your breath is rapid, shallow and irregular. When your breath is slow, deep and regular it is difficult to be upset.
Breathing exercises:

1, 2, 3, 4

(1,2,3,4 in; 4,3,2,1 out). As you breath in, count slowly up from “1” to “4” and as you breath out, count slowly back to “1” from “4.” Thus as you breath in, say quietly “1..2..3..4,” and as you breathe out, say quietly to yourself “4..3..2..1.” Do this several times.\(^{19}\)

In and Out

(Inbreath ((I am)) and outbreath ((at peace)). On the inbreath, you think and/or say internally, “I am;” and on the outbreath, you think and/or say internally, “at peace” repeat this several times-can also do while walking.\(^{19}\)
Mind-Body Modalities

Meditation: “The cultivation of basic human qualities such as a more stable and clear mind, emotional balance, a sense of caring mindfulness and even love and compassion. These are qualities that remain latent as long as one does not make an effort to develop them.”

All meditation involves focused attention and an open attitude towards distraction.

3 types of meditation:

1) Focused meditation aims to tame and center the mind in the present moment.

2) Mindfulness meditation (MBSR) tries to cultivate a less emotionally reactive awareness to emotions, thoughts and sensations occurring in the present moment to prevent them from creating mental distress.

3) Compassion and loving kindness meditation comes from the Buddhist tradition and fosters an altruistic perspective towards oneself and others.
Mind-Body Modalities

Meditation is effective for:

1) Mental health - chronic pain, anxiety and depression, general psychological health. Loving kindness meditation may be helpful in PTSD.\textsuperscript{25}

2) Somatic health - MBSR and other meditative practices have been shown to reduce the emotional component of suffering from disease, but not cure any particular disease. That being said studies have shown that meditation can reduce proinflammatory cytokines and down regulate genes involved in inflammation. This may have an impact on long term development of inflammatory disease states.\textsuperscript{20,21,22}
**Mind-Body Modalities**

**Guided Imagery**: A form of self-directed daydreaming—a purposeful use of the imagination to support health and healing. It uses evocative words and phrases, usually accompanied by music to promote a rich, multisensory fantasy and memory. An immersive voice, relaxed pacing and choice of language and music, together create a hypnotic, receptive mind-state that is ideal for supporting desired changes in the mind, psyche, body and spirit.

To the body, sensory images created in the mind are almost as real as the actual event. The more senses that are engaged (sight, sound, smell, taste and touch), the more real the experience.

Guided imagery can reduce anxiety and stress, reduce depression, reduce post-operative pain and can increase comfort during medical procedures.²⁸,²⁹,³⁰

Guided imagery is available at anytime through your personal electronic device.

[https://stream.carechannel.net/](https://stream.carechannel.net/)  
Code is: gen8745
Mind-Body Modalities

**Autogenics:** “A tool that facilitates the acquisition of a state of consciousness that allows us to take advantage of our innate ability to heal, to regulate our physiology and ultimately to connect us with something greater than ourselves.” It helps foster self-responsibility, self-regulation and self-awareness in a short period of time.\(^\text{19}\)

Autogenics may be helpful for general relaxation as well as insomnia, anxiety, irritable bowel syndrome and headache.\(^\text{31,32,33}\)

![Autogenic Relaxation](image)
Mind-Body Modalities

The Autogenics script: This should be practiced in a comfortable position either lying or sitting in a quiet, warm environment.

Here is a sample script from autogenic training work:

1. Sit in the meditative posture and scan the body
2. *My right arm is heavy* (repeat 3 or more times)
3. *My arms and legs are heavy and warm* (repeat 3 or more times)
4. *My heartbeat is calm and regular* (repeat 3 times)
5. *My solar plexus is warm* (repeat 3 times)
6. *My forehead is cool* (repeat 3 times)
7. *My neck and shoulders are heavy* (repeat 3 times)
8. *I am at peace* (repeat 3 times)
9. Finish by canceling: *Arms firm, breathe deeply, open eyes.*

This script should be practiced several times per day to maximize relaxation benefits.
Mind-Body Modalities

Biofeedback: A technique that trains people to improve their health by controlling certain bodily processes that normally happen involuntarily such as heart rate, blood pressure, muscle tension and skin temperature.

The most common type of biofeedback is measuring beat to beat variations in heart rate (the time interval between heart beats). Patients are taught to change their heart rate using breathing exercises and other procedures to help increase their awareness and control of emotions. Biofeedback gives patients rapid feedback achieving results quickly and eventually without monitors.

Most people that benefit from biofeedback have conditions brought on or made worse by stress.

Resource: HeartMath LLC. This company provides products, services and training programs to help people reduce stress by focusing on their breathing and emotions.

www.HeartMath.com
Mind-Body Modalities

Forest bathing - “Shinrin yoku”: “Taking in the forest atmosphere.”

The idea is simple: if a person simply visits a natural area and walks in a relaxed way there are calming, rejuvenating and restorative benefits to be achieved. Developed in Japan in the 1980’s it has become a cornerstone of preventative healthcare and healing in Japanese medicine.

Forest bathing is about immersing oneself in nature and experiencing a forest's atmosphere to improve mental and physical health.

Immersing oneself in a 5-senses experience by walking in a forest has been reported to have many health benefits including: reduced stress, improved mood, lowered blood pressure, boosting the immune system by increasing the number of NK (natural killer) cells, increased energy levels and improved sleep.\(^{34,35}\)

GET OUT AND ABSORB NATURE!
“If you actually measure stress, using our best available instruments, it can’t hold a candle to social isolation. Social isolation is the best established, most robust social or psychological risk factor for disease out there. Nothing can compete.”

Stephen Cole

Strong, loving and nurturing social connections and relationships can help protect us from the chronic diseases of aging so rampant in today’s society. Our social environment can profoundly change how our genes are expressed. Through strong social connection we can express genes in a way that supports our health and vitality. Through social isolation we can express genes in a way that promotes disease.

We currently view social support or strong relationships as sort of “add-ons,” something extra that we get to if we have time. This view assumes that humanity’s default state is solitude. It’s not. Our default state is connection. We are social creatures.
Relationships, Socialization and Loneliness

We are architects of our own experience.

Your subjective experience of loneliness carries more power than your objective situation. If you feel like you’re alone, even in a room full of people closest to you, you’re going to have problems. If you feel like you’re well supported even though there is nobody else in sight; if you come at the world with a sense that people care about you, that you are valuable, that you’re OK; then your body is going to act as if you are OK.\(^{36}\)

Harvard Study of Adult Development: Initiated in 1938 this 80 year running study has shown that the best predictor of health at age 80 was not a person’s cholesterol at age 50 but was a person’s satisfaction with their relationships. The people who were most satisfied with their relationships at age 50 were the healthiest at age 80. It also appears that it is not the quantity of the relationships that matters but the quality of relationships. A nurturing, protective relationship appears most important.\(^{40}\)

BOTTOM LINE: SOCIAL ISOLATION AND LONELINESS CAN BE TOXIC
10 Letters to Live By
Alphabet of the Heart ©

Compassion: Open your heart and be compassionate to yourself and others.

Dignity: Recognize the dignity of every human being.

Equanimity: While acknowledging the ups and downs, try to find an even keel.

 Forgiveness: Give forgiveness to those who have failed you or made you angry.

Gratitude: Keep in the front of your mind gratitude for all that you have.

Humility: Remember that you are no better and no worse than others you encounter.

Integrity: Value honesty and integrity and use it to guide your actions.

Justice: Acknowledge your obligations to those who are most vulnerable.

Kindness: Kindness does not require suffering; only the recognition of another’s humanity.

 Love: And finally, love which contains and binds all. Let your heart be open to love yourself and give love freely to others.

James R. Doty MD


3. Watters, Ethan (2006). “DNA is Not Destiny” *Discover*


19. The University of Arizona Center for Integrative Medicine.


RESOURCES

Books you might enjoy:

Relaxation and meditation resources:

1. The relaxation response demonstrated by Dr. Herbert Benson: https://www.youtube.com/watch?v=nBCsFu0FRp8
2. Guided imagery resource: https://stream.carechannel.net/ Code is: gen8745
4. Meditation apps for your phone:
   - Insight timer
   - Headspace
   - Waking up: Sam Harris
5. https://centerhealthyminds.org/
6. Center for Compassion and Altruism Research and Integrative Health: http://ccare.stanford.edu/
7. UCLA Mindfulness Awareness Research Center: https://www.uclahealth.org/marc/default.cfm
RESOURCES

4 - 7 - 8 Breathing

4 - 7 - 8 Breath Relaxation Exercise

A patient handout from Dr. Andrew Weil. This is a very simple and useful tool to achieve general relaxation and to manage stress.

BEGINNER TIPS

- Ideally, sit with your back straight.
- Place the tip of your tongue against the ridge of tissue just behind your upper front teeth, and keep it there through the entire exercise.
- Exhale through your mouth around your tongue; try pursing your lips slightly if this seems awkward.

STEPS

- Exhale completely through your mouth, making a whoosh sound.
- Close your mouth and inhale quietly through your nose to a mental count of 4.
- Hold your breath for a count of 7.
- Exhale completely through your mouth, making a whoosh sound to a count of 8.
- This is one breath. Now inhale again and repeat the cycle three more times for a total of four breaths.

ARE THE NUMBERS IMPORTANT?
The absolute time you spend on each phase is not important; the ratio of 4:7:8 is important. If you have trouble holding your breath, speed the exercise up but keep to the ratio of 4:7:8 for the three phases. With practice you can slow it all down and get used to inhaling.

WHY SHOULD I DO IT?
This exercise is a natural tranquilizer for the nervous system. Unlike tranquilizing drugs, which are often effective when you first take them but then lose their power over time, this exercise is subtle when you first try it but gains in power with repetition and practice. Use this new skill whenever anything upsetting happens - before you react. Use it whenever you are aware of internal tension. Use it to help you fall asleep.

HOW OFTEN?
Do it at least twice a day. You cannot do it too frequently. Do not do more than four breaths at one time for the first month of practice. Later, if you wish, you can extend it to eight breaths. If you feel a little lightheaded when you first breathe this way, do not be concerned - it will pass.

ANYONE CAN DO IT...

- Simple
- Quick
- No Equipment needed
- Do it Anywhere