



Visualizations, Guided Imagery, & Mind Body Medicine

Mind body medicine has been around since the ancient times — especially in indigenous societies. Modern allopathic medicine has only been around for about a hundred years . . . As our health care system is failing miserably it is time we revisit the ancient methods that supported our health. And that is happening! Mind Body Medicine is being more researched than ever before and is receiving scientific approval these days. We even have some new scientific words to describe them.

Mind body medicine is defined as using the mind to effect the body. Due to the placebo effect we already have a good deal of science backing the power of your mind. And the good news is there are many different mind body medicine techniques available that are effective. Today I want to talk about imagery and visualizations as a mind body medicine.

This is not new knowledge. We have a history of research by Albert Ellis in how our beliefs effect the consequences of what happened to us — again restated — It is not what happens to us that effects us, it is how we think about what happened to us that effects us. He calls it Emotional behaviors consequences, and it is in line with other studies in Cognitive Behavior Therapy. Cognitive behavior meaning “how you think”.

More recently I can across an interview Dr. Mercola did with Dr. Martin Rossman on worry and how worrying may effect our health more than bad food, smoking, and/or lack of exercise! Dr. Rossman has a long-standing interest in the practical importance of attitudes, beliefs and emotions in mind-body medicine and is a big fan of the Power of Visualization. He has a book out called “The Worry Solution” which includes a CD set of visualizations you can listen to. According to Dr. Rossman:

“Imagery, which seems so invisible and ethereal and airy-fairy, is one of the most powerful faculties we have as human beings for not only changing our behaviors, but changing our minds, which changes our physiology. It changes our body. It changes our health.”

We can use our imagination to improve our job, relationships, and our happiness or mood by developing a deeper self-awareness about what we are thinking and constantly saying to ourselves. Many successful people be it actors, business people, or athletes have learned how to incorporate visualizations — some of them on purpose and some through intuition.

Another tidbit I got from this interview is the idea of “What if your body could speak to you?” For example if you are having heart trouble, imagine your heart could speak to you — what would it say? What does it want? If you have chronic headaches, imagine your head or brain telling you what it needs in order to not hurt. You may get some very useful insights. Try it and see.

Your mind is a powerful tool! It can enhance anything we are trying to accomplish — or lead us down wrong paths . . . Studies have shown you can use the power of your mind to increase healing, boost your immune system, improve strength and coordination in your physical body, and help to achieve your dreams.

For example, using the power of your mind to improve strength; here is a study done on mind only exercises vs. using resistance training for muscle strength for the same exercises (<http://www.ncbi.nlm.nih.gov/pubmed/14998709>). In this study they tested elbow flexion and pinky abduction with what they called



“mental contractions” -- Only doing the exercises in the mind without any physical exercise being done; they tested the same exercises being done with real weights, and had a control group. The results . . . the “mental contraction” group had a 35% increase in muscle strength, the group who used real weights had a 53% increase in strength and the control group stayed the same -- simply focusing and imagining doing the exercise increased muscle strength! This study concluded “The mental training employed by this study enhances the cortical output signal, which drives the muscles to a higher activation level and increases strength.”

I would classify this as a Neuro-Muscular improvement -- improving how our brains and muscles communicate. Before you move a muscle, the brain has to signal it to move, mental contractions send the signal to the muscles even though we voluntarily do not move them — this communication between brain and muscle enhances strength and performance even without movement.

I did some research on using the power of your mind, here is what I found:

To use your mind power, you have to know how to employ it -- the best way to do that is to know what it is you want to do and to think it often;

☪ The thoughts you think most often are more likely to happen

- If you put your mental energy into the same thoughts day after day they become stronger -- and eventually affect your attitude and behavior.

☪ Not every thought turns into reality, a thought not only has to be repeated but believed to carry power.

- Doubts, fears and worries tend to destroy what you build with the power of your mind. It is helpful to clear your mind of negative thoughts and doubts.

Your daily exercise or yoga practice is a good place to put your thoughts into the healing of your inner body, in this way every day when you practice you are using the power of your mind to keep your body healthy. This is why I feel it is so important to share where we are working internally in yoga postures and the benefits of exercises.

Take the power of your mind to medicine ... Placebos are getting some exciting attention, it seems among Americans the placebo effect is increasing. Pharmaceutical companies are having a harder time proving their (poison) pills over placebos. To receive FDA approval a pharmaceutical company has to prove their chemical concoction can outperform a placebo. This is getting harder and harder to do.

What the pharmaceutical companies look at as a hassle we can use to our advantage!

There was some research done on placebos vs. pain meds, surgery, or other pain management therapies. Some placebo treatments works better than others. Placebo means "to please you" by the way. That's a nice thought :) Here is what the study found :

- ☪ Placebo surgery worked better than placebo injections
- ☪ Placebo injections worked better than placebo pills
- ☪ Color and size of the placebo pill makes a difference
- ☪ Sham acupuncture works better than a placebo pill

- ☪ The more expensive the more effective the placebo, and the more administered the more effective
- ☪ Telling the patient "this will relieve your pain" is better than saying "this might help".

Clearly our beliefs have a powerful effect on our body and healing. Scrutinize the quality of your thoughts.

In addition to placebo, we also have:

- ☪ pre-cebo = your perception will effect the outcome
- ☪ nocebo = I will harm! Most pharmaceutical meds have a nocebo effect.

Imagery and Visualization and the Placebo effect

Why we talk about scrutinizing the quality of your thoughts your mind is a powerful tool. We know that a placebo pill can be as effective (with less side effects) than a real pill. Instead of looking at this as a problem let's take advantage of it!

Imagery is a type of mind body medicine that works like a placebo. **Guided imagery reduces stress, and improves immune function by increasing white blood cells and lymphocytes.** If you are ill, have disease, or planning a surgery you can use guided imagery to improve your healing response.

Here are two images for you to put in your mind to help the healing process.



Figure 2. Phagocytosis
 Coloured scanning electron micrograph of a white blood cell (orange) caught in the act of engulfing bacteria (blue rods). As Ilya Metchnikov observed, wandering cells called phagocytes migrate to areas of tissue damage or infection to engulf and digest any harmful foreign particles, bacteria, and dead/dying cells.

Credit: Dr Kari Lounatmaa / Science Photo Library. The photo was kindly provided by Dr Kari Lounatmaa / Science Photo Library.



Candida albicans being eaten by a macrophage in your immune system

Sham or placebo surgeries?

Even sham surgeries work! We have studies of sham surgeries done on knees with great results. Here is an study on Arthroscopic surgeries where they made incisions but never operated — the sham surgery had as high of a success rate as the real surgery. (<https://www.ncbi.nlm.nih.gov/pubmed/24369076>) This could be called the precebo effect.

There was also another study I came across (and I can not find it now!) involving people on long term anti-depressant use where they told a group in the study they were going to give them

a sugar pill but they did not -- they kept giving them their same anti-depressant the majority of the group experienced withdrawal symptoms even though there were still getting their antidepressant. This could be called the nocebo effect, where the mind created harm that was not really being done.

Training the mind is just as important as training the body

I have read studies of Olympic skiers rehearsing the course in their head and gaining more consistent improved performance — As in this NY Times article :http://www.nytimes.com/2014/02/23/sports/olympics/olympians-use-imagery-as-mental-training.html?_r=0

We can also use imagery to improve artistic performance, here is a study where participants who Mentally Practiced on an imaginary piano had the same neurological changes (and reductions in some mistakes) as the participants who Physically Practiced. While the group that physically practiced improved overall performance slightly better — there were measurable gains in improvement in the Mental Practice group. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3747442/>

This type of mental practice is especially beneficial to prevent overuse injuries — or in the case of athletes who may get injured; mental imagery allows them to “practice” while they are off for recovery.

How does mental practice enhance performance? Before our muscles move our brain has to engage to tell them to move, this is the cortisol output signal. Imagery or rehearsing in your mind stimulates the cortisol output signal driving muscles to a higher level of performance or coordination. As stated in the piano study “Some have suggested that mental practice activates the same brain regions as physical practice, and may even lead to the same changes in neural structure and synaptic connectivity.”



To get the most of your visualizations, pull in as many senses as possible; as Emily Cook (a U.S. freestyle aerials Olympian) in the NY Times link above says, she goes beyond “visualization” in her training. “You have to smell it,” she said. “You have to hear it. You have to feel it, everything.” For example she talks of feeling the wind on her face, hearing the crowd, feeling her muscles work as she does the imagery.

You too can harness the power of imagery

We can use mental imagery to heal our body, improve how we do our job, find the way to change to our “dream life”, or toward any area in life we want to rise to a higher level. All that is required is a little meditation time — and with the science we now have backing the power of meditation it is a win win time expense. In just 10-20 minutes a day you can start to use the power of your mind to improve health and well being, and anything you are striving for in your life.

Below are a few sample guided imagery meditations to get you started. Watch for audio clips of me talking you through these visualizations to be added soon.

USE AS MANY SENSES AS YOU CAN to picture this. the more senses you pull into your guided imagery the more effective it is. Feel it, see it, hear it, smell it, taste it. We each have two dominant senses and it is different for each of us.

Here is a quick test to find your two . . . picture a lemon . . . what did you experience first? The sharp citrus flavor, the scent? the feel of it? Seeing it?

Resting Pose Meditation

Here is a nice rest pose meditation that uses the power of your mind. At the end of your yoga practice or after an exercise or meditation, lie down on your back and get comfortable. You can prop a pillow under your knees and or feet, put a rolled up towel under your neck or shoulder blades, cover your eyes, and your body. Lie down and get comfortable.

These are excerpts from Beryl Bender Birch’s (my first teacher) book “Power Yoga”. It’s a nice way to use your mind to help keep the systems and organs of your body healthy and clean.

Settle in and align yourself for rest pose. Are you fairly symmetrical? Check your hip bones, heel bones, shoulders, are your bones spaced evenly? After arranging your superficial structure of your bones and muscles, sink a bit deeper.

Enter your respiratory and circulatory systems. You can start by entering through your nose and traveling along your breath to your lungs. Bump around inside your lungs like a helium balloon. Hop on an oxygen molecule and squeeze through the walls of the lungs and travel to your heart. Imagine the passages into and out of your heart; see them as clear and smooth and free of debris and obstacles. See all the little trap doors swinging easily and functioning without resistance or stress.

From there be pumped out of your heart and sent tumbling into the vast networks of rivers, streams, and creeks that make up your circulatory system. Construct a little boat or raft for yourself and set out down the main artery leading from your heart. <<I have been told the pressure in the arteries is so high that this would be more like white water rafting ;) >> As you travel downstream, notice the condition of the “banks” of the river. Look for debris or litter. If you see any , then imagine a big trash collecting “boat” (a white blood



cell) traveling down the river, sucking up the debris and transporting it to the recycling station. Imagine that all the walls of the blood vessels are plaque free -- pink and smooth. The banks of the river are pristine and un-trampled. See a beautiful and healthy environment. Notice the branches and tributaries of the main river that go off to the various organs and how well organized the delivery of supplies and removal of waste are along these passageways.

Sink deeper still -- into the nervous system. The scenery changes. Now you will see great networks of tracks and trails and pathways. Observe how well maintained they are. Polished, shiny stainless steel. No rust. No broken tracks. Check the connections, the intersections and the switching stations of the countless nadis (channels, nerves). Look around for static or interference, especially if you have had a stressful day. If you find any impediment that is creating poor reception, do some rewiring and breathe a little prana to that stretch of track.

Lets pop in on our immune system. Now in your mind's image you see your immune system kind of like spaceship that is monitoring your entire body, watching for perpetrators. In my minds eye I see Marvin the martian from Bugs Bunny cartoons . . . watching over with his blaster, blasting away at suspicious molecules. We do have to keep him in check so he does not get too trigger happy, as he does in the cartoons -- and as with auto immune diseases, imagine he is a good shot and has a good eye not mistaking foreign bodies for self. In this space ship we have a "command center" where we can monitor our entire body watching for perpetrators and monitoring our Marvin martians to make sure they are not overworking.

Settle deeper still -- into the digestive and elimination systems. Now you get to roam around in your stomach and get a look at that last meal, close up. If you have been eating nutrient dense food and lots of vegetables, things should look pretty good, matter that is easy to digest and move along the system. No problems :) See a happy stomach processing food and sending it along its way through the digestive system. See all the systems in your body working harmoniously :) Rest with this image a bit.

Bring your attention to your heart and inhale, filling it peace, centeredness, and calm. Rest with this a moment then slowly bring yourself back into your body.

Here is another visualization improving heath and filling us with light. This is a traditional Native American Indian visualization that I have tweaked quite a bit over the years of using it.

Golden waterfall meditation

Sitting tall settle in and get comfortable. Take your breathing a little deeper and slower. Notice how your body feels, Seek out areas of tightness and see if they release. Listen to the sounds around you. Enjoy them all. Relax and surrender. Unwind. If sounds outside such as sirens interfere, imagine yourself in the ocean, sinking down a bit where you can hear whales and still see the waves and sunlight above the water. Notice the turbulence on the top of the water does not effect you where you are. Feel this calm as other sounds or sights may circulate around you.

Inhale through your nose, feel your breath move down through your throat, through the center of you body, grounding your sitting bones to the earth -- or perhaps your spine if you are lying supine. Feel your whole body breathe. Cellular respiration, feel every cell in your body take in oxygen and give off carbon dioxide. Take a deep exhale through your mouth and let go of all that carbon dioxide. Return to your nasal slow breathing.



Imagine a light pouring in the top of your head, feel this area of your head open up and receive this light, this life force energy. Inhale through the top of your head, welcoming this beautiful waterfall of golden light from the sun itself. Each inhale feel the light pouring in, each exhale relax deeper and let the light stream through your body.

Feel the light brighten your third eye center filling your mind with brightness. Let this light stream down your throat center, into your heart space.

Let the light move in your body wherever it wants. I will make suggestions, but let the light move however it wants.

Feel the light enter your heart space and fill your heart with light and warmth. Radiate with this warmth in your heart. Let it glow.

Feel the light in your solar plexus, let the light feed that light in your center, your core of who you are -- soothing and nourishing your body and mind.

Feel the light stream into your lower pelvis and let it settle in the basin of your pelvis, like a pool of a waterfall gathering the water from the stream that is flowing over it. Feel the light there pulsate and get denser and brighter.

Let the light grow and expand in your body encompassing your entire pelvis, breathe into the light and feed it more energy. Let the light expand up toward your belly and ribs -- let it shine through your organs. Feel the light expand downward through your legs and out your toes. See the light in your blood, tissue, and muscles. Like looking at a flashlight shine through your fingers.

Every area in your body this light touches feel it heal and nourish.

Expand the light through your heart center, up through your shoulders and out your arms through your fingers. Healing.

Let the light keep growing and shining. Let it flow all the way through your body, out your toes, your fingers, out your ears, your eyes. Let the light start to fill your aura. Emanate this light. This beautiful golden light.

Feel the waterfall of light pouring through your head down to your mula bandha pooling in your pelvis and then filling your entire body out to your aura. Shine.

Radiate from the inside out.

Feel your body, mind, emotions being cleared by this beautiful healing golden waterfall of light.

Rest in this a moment.

Take a deep inhale through your nose and exhale thorough your mouth and let the light releases stories that no longer serve you.

Rest a bit longer.

Now gently awaken, wiggle your fingers and toes, roll your wrists and ankles. Reach your arms overhead and give back some of your light to the sun.

Shake your hands move your arms and legs. Rub your hands together building some heat and place them over your eyes until the heat dissipates.



Open your eyes. Now release. Place your right hand on your left shoulder and wipe the energy down and away toward the opposite hip with a shushh. Now place your left hand on your right shoulder and wipe the energy down with the shushh sound. Repeat again right and left.

A short breathing exercise meditation / visualization

Settle in for a 5-10 minute meditation. Sitting in a meditation posture is a nice way to take this short vacation. Close your eyes, place your tongue on the roof of your mouth just behind your front teeth. Close your lips and part your teeth.

Tune into your breathing, take your breath a little slower and a little deeper. Feel the air enter your nostrils, travel down the back of your throat, feel the air expand your lungs, feel your lungs expand and press on your ribs, feel your rib cage expand. As you exhale feel your ribs soften inward and your abdominals pull inward and upward adding support to our frame.

Imagine something you want more of in your life; abundance, love, acceptance, a certain lifestyle
Inhale that image toward you — even breathe it in
Imagine something you want less of in your life; for example stress or pain or worry
Imagine that exhaling out of your body

Attach your breath to each image, inhaling imagine more of what you want, exhaling imagining challenges melting away from you. Work toward 5-10 slow deep breaths attached to the mental imaging.

Gently open your eyes, take a few neck stretches carefully tipping your head forward and back, side to side, and circling. Align your head and neck, bring your hands to your heart in prayer position, send a positive thought to the universe or sing an OM. Gently move on in your day.

<<watch for audio clips coming soon to be attached to these meditations>>

And on the flip side

We can also use the body to effect the mind. Our posture effects our biochemical parameters. Specifically cortisol and testosterone. These hormones determine how we behave. On a study done by Amy Cuddy, PhD called Power Posing showing that brief nonverbal displays affect neuroendocrine levels and risk tolerance.

The study was done having people hold a specific “power” posture for 1-2 minutes. During that time their parameters were measured.

- ☞ People who sat slumped over or in poor posture measured with higher levels of cortisol. Cortisol is a stress hormone.
- ☞ People who sat or stood up tall with good posture, taking space measured with higher levels of testosterone. Testosterone makes us feel virile, strong, capable.

This shows how you can use Mind Body Medicine all day in your life. As you go through your busy days, remember to hold your posture high, don't let your head slump down, SMILE, and greet people wherever you go. Stand tall and proud :)