

MIND-BODY SKILLS II

As noted at the beginning of Module 7, mind-body techniques offer patients the following:

- Greater control with their treatment
- Cost-effective therapeutic alternatives
- Effective options for managing chronic conditions and psychological disorders
- Methods for maintaining wellness

In this module, we continue to explore the most common and readily applicable techniques for supporting self-management of chronic pain.

PROGRESSIVE MUSCLE RELAXATION

Technique. Progressive Muscle Relaxation (PMR) was developed in the late 1920s by Edmund Jacobson. It is a systematic relaxation method that involves activating and releasing tension in various muscle groups. PMR for chronic pain involves tensing and releasing muscles in a very subtle manner, so as not to injure the body or exacerbate pain sensations. PMR helps people differentiate feelings of tension from relaxation, and they learn to apply these skills in stressful situations.

Clinical applications. PMR is typically taught as a two-step relaxation practice to reduce stress and build awareness of sensations of tension and deep relaxation in 14 muscle groups.

- The first step in the PMR practice is to create tension in a specific muscle group, noticing what tension feels like in that area.
- The second step is to then release this muscle tension and begin to notice what a relaxed muscle feels like as the tension drains away.

(For more on Progressive Muscle Relaxation and Progressive Relaxation, see the Power of Mind module on the Whole Health Library Website. The website is reviewed on page 209 of the binder.)

AUTOGENIC TRAINING

Technique. Autogenic Training is a relaxation technique developed by the German psychiatrist Johannes Heinrich Schultz in 1932. Autogenic means “generated from within.” AT is considered a form of self-hypnosis. It involves a series of simple, self-instructed mental exercises to increase relaxation without having to go through a hypnotic induction performed by a clinician.

Clinical applications. More specifically, the practice of AT involves thinking several specific phrases to oneself to produce a relaxed feeling of warmth, heaviness, and emotional calm throughout the body. These phrases, such as “my arms are heavy and warm,” “my heartbeat is calm and regular,” and “I am calm and relaxed,” are stated silently to oneself in a non-striving, detached way, which fosters the parasympathetic quieting of the body (the relaxation response).

At the core of AT is a set of standard exercises which focus on six physical manifestations of relaxation in the body:

1. Heaviness in the musculoskeletal system
2. Warmth in the circulatory system
3. Awareness of the heartbeat
4. Slowing down the breath
5. Relaxing the abdomen
6. Cooling the forehead.

These exercises build weekly, starting first with relaxation of the peripheral extremities. Next, regulation of the heartbeat and breathing patterns is included. Lastly, relaxing the stomach, cooling the forehead, and feeling overall peace in the mind and body are added. Not all individuals using AT will experience all these sensations. Instead, they may report the overall effects of relaxation, such as reduced heart rate, lessening of muscular tension, slower breathing, reduced gastrointestinal activity, improved concentration, lessened irritability, improved sleep, and more.¹

Try It for Yourself: Tune in to Your Body

Try feeling each of the six Autogenic Training manifestations as you read through this. If you have difficulty, start by just focusing on one specific part of the body, like your hands.

1. **Musculoskeletal system.** Allow yourself to feel heaviness in the muscles and bones. Can you tune in to specific bones or muscles?
2. **Warmth.** Focus on blood flow. It might help to focus on your hands or feet at first. Can you make them warmer?
3. **Pulse.** Can you tune in to your pulse? Where do you feel it?
4. **Breathing.** Note your respiratory rate. Take a few slow deep breaths to slow it down, as you feel comfortable.
5. **Abdomen.** Imagine your abdomen softening, like melting snow. Feel the breath in the abdomen, as you practiced in the breathing exercises, above.
6. **Forehead.** Allow your forehead to cool down. You might imagine an ice cube melting on it, or a gentle breeze blowing across it.

GUIDED IMAGERY

Technique. Imagery, also known as visualization, guided or directed imagery, or even self-hypnosis, is an ancient practice and “one of the world’s oldest healing resources.”² Imagery is found across cultures, including in Native American and other indigenous traditions. Certainly, imagery and hypnosis are related, and imagery could be considered a subunit of hypnosis.³

Clinical applications. Imagery can promote self-management of the pain experience. It is an ideal self-management tool because it is patient-centered and because, after initial training, a patient can do it outside of a clinical setting. Many psychotherapists and psychologists can assist patients with using imagery. Other providers who may incorporate imagery into their work include physical and occupational therapists, psychiatrists, nurses, and integrative medicine clinicians.

Guided imagery is a process in which a person imagines, and experiences, an internal reality in the absence of external stimuli.⁴ Mental imagery may be used to alter a person's physiologic process, mental state or behavior.⁵ Typically the images are a mental representation of something real or imaginary that includes the senses of sight, sound, sense of movement, smell and taste and is experienced within a state of relaxation with a specific outcome in mind.⁶

For self-management of pain, imagery is generally used in two ways:

1. To induce relaxation and improve stress management and coping. For example, an individual might imagine a peaceful and beautiful location where they could experience rest and well-being.
2. To help a person focus on a desired outcome. For example, a patient might imagine her or his pain as being large and bright red, and then shift the image to decrease the image's size and modify its color.

Using imagery, a person with pain can learn to reinterpret pain sensations and direct attention away from them.⁷⁻⁹ Guided imagery can also help decrease levels of perceived stress and anxiety, reduce fatigue and depression, improve physical function, improve sleep and enhance a sense of self-efficacy and active coping for managing symptoms related to chronic pain conditions.¹⁰⁻¹³ (For more on imagery, see the Power of Mind module on the Whole Health Library Website. The website is reviewed on page 209 of the binder.)

Try It for Yourself: The Power of Imagery

1. Imagine that you are holding half of a lemon in your hand.
2. Make use of all your senses. Feel its weight in your hand. Note the bright yellow color. Smell it. Does it make any sounds?
3. Now taste it. Lick the exposed surface of the fruit. Take a bite. How does it taste?
4. Note your body's response. Did you pucker up? Did your mouth water?

A HANDWARMING GUIDED IMAGERY SCRIPT

Begin by getting into a comfortable position, resting in a chair, lying down on a couch or bed and take three deep breaths. As you are breathing in and out you can begin to allow relaxation and comfort to flow through you, however, that feels to you. Starting from your eyelids allowing relaxation to flow up, over your forehead. This relaxation can flow up, over the top of the head, spreading through all of your scalp and down the back of your head, flowing down, down into the muscles at the back of your neck. All those muscles there just beginning to relax in your own way and as you allow comfort and relaxation to flow through and down now, down from your eyelids, down through your face.

Relaxation trickling down, rather like rain on a window pane. Relaxation flowing down, down your cheeks, your jaw so you are not clenching your teeth together and into the muscles at the

front of your neck. All of the muscles in your head, your face and neck just beginning to relax. And it may be that your head feels a little heavier and if you wish, you can allow it to move into its most comfortable position to one side or the other or to be supported even more by the back of the chair. Feeling the head completely supported. And you can allow the same feeling of relaxation and comfort to begin to spread and flow out across your shoulders and down, down into your arms. Flowing its path in your mind's eye, flowing all the way down. Down through all of the muscles at the top of your arms. Across your elbows, down through the lower arms into your hands. Even into your fingers. Right to the tips of your fingers.

All of the muscles in your arms beginning to relax, beginning to let go of any tension that relaxation and feeling of comfort flowing all the way down, that's right. All of the muscles beginning to feel looser, more comfortable. You can allow that relaxed feeling and comfort to flow down through your body, down from the back of your neck through all the muscles in your back. Flowing all the way down like a stream. Through these muscles on either side of the spine this relaxation flowing down all the way to the base of the back and all of these muscles begin to relax and then your body can sink a little more into the comfort of the chair and going down from the front of the neck allowing that relaxation to flow down through all of the muscles in and around your chest so that you are only using the muscles you need to breathe easily and comfortably, only those muscles you need to use. Down through all of the muscles around the waist, your tummy, your abdomen, and all those muscles beginning to relax, to feel more comfortable and you can gradually become aware of the deeper state of comfort.

Allowing that same relaxation to flow down, down into your legs, flowing all the way down. Down through your thighs, through the muscles at the front, at the back and the sides of your thighs, flowing all the way through. All of those muscles gradually beginning to feel looser, more relaxed, down across your knees, into your calf muscles flowing all the way down into your feet, right to the ends of your toes so that even the tiniest muscles are beginning to relax. Letting go of any tension and your feet can feel as though you have been wearing a pair of tight shoes that you have just taken off and your feet can spread out a little and as you just rest, relaxing more and more with each breath you take, all of the muscles letting go of any tension, any remaining tension draining down, down and out and out through the soles of your feet. Feeling more and more comfortable. More and more relaxed. Every muscle which you don't need to use right now relaxing.

In your mind's eye, imagine walking down a path that leads to a beautiful beach. As you arrive, use all your senses and notice the colors, the smells, the sounds, the objects, and the feel of this place. You may be all alone at this beach or there could be strangers, friends or even animals who have joined you. Everything is exactly as you would like it to be. This place is just perfect for you today. It is comfortable and warm and safe in this place. You can hear the ocean waves, smell the salt sea air and feel the warmth of the sand against your toes. Find a spot on the beach where you can rest a while, perhaps sitting or lying down. Feel the support that is there for you today at this beach. Nothing can affect you. Nothing can disturb you. No matter what occurs in the outside world, you are safe and supported here. This beach is a peaceful and comfortable place.

As you relax even more, begin to feel the warmth and comfort of the sun touching the skin of the body. It's just the right amount of warmth and there may be a cool breeze on parts of your body that need it some coolness today. Feel the warmth of the sun and the sand making contact with

the rest of your body. The warmth from the pleasant sunshine begins to fill the center of your body with a very pleasant healing glow. You can begin to notice this place of comfort, of warmth of safety in the center of the body.

And you can begin to feel the safe and warmth begin to spread. It is a pleasant sensation and you can imagine this warmth spreading out from the core of your body almost like rays of the sun. Spreading out throughout the torso now; warm, comfortable soothing sensations. Almost like this comfort and warmth is spreading; spreading out throughout the torso, throughout the abdomen, throughout the chest, throughout the lower, middle and upper back. Spreading up the length of the spine, up into the neck and head and down the length of the spine to the tailbone. And you can even notice this warm comfortable sensation spreading, down the legs now all the way down the legs into the feet, and you can even notice the spreading up over the shoulders and down, down the hands. You might even be surprised to notice that your hands are getting warmer and warmer. Your hands are getting warmer and warmer, almost as if you are warming your hands by the sunlight, feeling the heat from the sun going straight in the tips of the fingers or almost like you are holding a warm cup of coffee or tea or a warm bowl of soup. You can imagine the heat entering in to the tips of the fingers while this warm, healing soothing sensation traveling down the arms in to the fingers. No need to try; just allow this warmth in this your hands as you may say to yourself silently in your mind. My hands are getting warmer and warmer. Easy pleasant sensations. My hands are getting warmer and warmer. Feeling the heat from the sun. Feeling the warmth of the core spreading down. My hands are getting warmer and warmer. Just take a notice to enjoy this state or relaxation that you have created for yourself, feeling your whole body at ease, feeling very, very relaxed. Just resting here.

And in a moment we will begin to travel back, back away from this beautiful, safe, comfortable beach. And you can imagine yourself in your mind's eye leaving that beach and beginning to walk to the path and leaving it, knowing that you can return to this place whenever you like, that it is always there for you to come back to. You may begin to feel yourself traveling back; to a state of wakefulness. Count slowly from A to E and as you travel back to a state of wakefulness keep with you any aspect of this relaxation that was useful for you today.

A - Beginning to travel back up, up to a state of wakefulness.

B - Becoming more alert and aware, wriggling fingers and toes.

C - Becoming more aware feeling more calm and centered. Coming back even more fully.

D - Traveling back completely, stretching a little bit.

And E - you can come back completely and open up your eyes feeling refreshed and alert.

Script written by Shilagh Mirgain, PhD.

BIOFEEDBACK

Technique. Clinical biofeedback emerged as a discipline in the late 1950's, and since that time, it has expanded dramatically, as research into various biofeedback applications have demonstrated promising results. Biofeedback studies offered a concrete demonstration of the mind-body link in studies where participants were trained to alter body functions, such as brain wave patterns and heart rate. These physiological measures previously had been believed to be outside of conscious control.

The Association for Applied Psychophysiology and Biofeedback (AAPB)¹⁴, the Biofeedback Certification Institution of America (BCIA)¹⁵, and the International Society for Neurofeedback and Research (ISNR)¹⁶ approved the following definition of biofeedback in May 2008:

Biofeedback is a process that enables an individual to learn how to change physiological activity for the purposes of improving health and performance. Precise instruments measure physiological activity such as brainwaves, heart function, breathing, muscle activity, and skin temperature. These instruments rapidly and accurately “feed back” information to the user. The presentation of this information—often in conjunction with changes in thinking, emotions, and behavior—supports desired physiological changes. Over time, these changes can endure without continued use of an instrument.

Clinical applications. Training in biofeedback can help patients self-manage their pain through modifying their physiological activities. Depending on the nature of their pain, a patient might be trained with the equipment to lower muscular tension, decrease heart rate, change brainwaves, alter skin temperature, etc. Biofeedback also has the secondary benefit of encouraging self-efficacy, creating an active learning environment, and developing important skills for use in a pain patient's self-management toolbox. (For more on biofeedback, see the Power of Mind module on the Whole Health Library Website. The website is reviewed on page 209 of the binder.)

CLINICAL HYPNOSIS

Technique. The term hypnosis comes from the Greek word hypnos which means “to sleep.” Hypnosis has been used in medicine for millennia, with ancient texts from Egypt, China, Greece, and Rome all describing practices that are considered hypnotic. In the late 1700's, hypnotism was led out of the realms of the occult into scientific study with the work of the Austrian physician, Franz Mesmer, to whom we owe the word “mesmerism” and its derivative “mesmerize.” In the twentieth century, Milton Erickson revolutionized the practice of hypnosis, and the vast majority of clinicians practicing hypnotherapy today use some form of the Ericksonian approach. Erickson viewed hypnosis as a method of calming and quieting the conscious mind so that one could access and work directly with the subconscious. Because the body “hears” everything that enters the subconscious mind, hypnosis became viewed as a method for accessing and influencing subconscious effects on the body.¹⁷

Clinical applications. Hypnosis involves accessing a trance state of inner absorption, concentration, and focused attention. This is established by using an induction procedure that usually includes instructions for relaxation to produce an altered state of consciousness.¹⁸ Trance is considered a naturally occurring state that is induced by mental concentration. Attention is narrowly focused and relatively free of distractions, and the body experiences physical relaxation. This is similar to everyday experiences such as daydreaming, losing yourself in a book or movie, or getting lost in thought while driving and missing your exit. According to Jensen and Patterson (2014)¹⁹, clinical outcome studies on acute and chronic pain along with neurophysiological studies in the laboratory have shown that hypnosis has three potential effects on chronic pain:

1. Hypnosis is effective above and beyond placebo treatment resulting in substantial reductions in average pain intensity that is maintained for up to 12 months in some patients.
2. Hypnosis teaches self-management skills patients can use regularly that can result in temporary pain relief.
3. Hypnosis has measurable effects on activity in brain areas known to be involved in processing pain.

(For more on hypnosis, see the Power of Mind module on the Whole Health Library Website. The website is reviewed on page 209 of the binder.)

EYE MOVEMENT DESENSITIZATION AND REPROCESSING

Technique. Eye Movement Desensitization and Reprocessing (EMDR) was introduced by Dr. Francine Shapiro in 1989. It was presented as a new treatment for traumatic memories and PTSD, with later expansion to other anxiety disorders and phobias. One controversy about EMDR is whether the bilateral stimulation (e.g., eye movements, etc.) adds a specific benefit to the treatment. A recent meta-analysis of just this issue found that in both clinical and laboratory settings, eye movements (compared to no eye movements) had a medium effect size, which suggests an advantage for using eye movements over not doing so.²⁰ The exact psychophysiology of bilateral stimulation is still largely unknown.

Clinical Applications. EMDR is generally a multi-session intervention which uses bilateral stimulation, often in the form of eye movements, taps, or sound, with the goal of processing distressing memories, reducing symptoms, and enabling patients to develop more adaptive coping mechanisms. There is an eight-step protocol that includes having patients recall distressing images while receiving one of several types of bilateral sensory input, including side-to-side eye movements. Initially used for adults, EMDR has been found to be useful with children as well. (For more on EMDR and other treatments for PTSD, see the Posttraumatic Stress Disorder (PTSD) module on the Whole Health Library Website. The website is reviewed on page 209 of the binder.)

THERAPEUTIC JOURNALING

“The unexamined life is not worth living.” – Socrates

Technique. Writing about stressful, upsetting and traumatic experiences and putting emotional upheaval down on paper has been found to improve physical and mental health. Dr. James Pennebaker, one of the first researchers in this area, found that writing about emotionally difficult events or feelings for just 20 minutes at a time over four consecutive days was associated with both short-term improvements in physiological arousal and long-term decreases in health problems. Expressive writing is considered an evidence-based treatment for posttraumatic stress and constitutes a useful treatment alternative for patients who do not respond to other evidence-based treatments. It may be especially useful for reaching trauma survivors in need of effective mental health care who live in remote areas. It also can be a way to reach people who are unwilling or unable to engage in psychotherapy.

Clinical Applications. This four-day writing exercise is useful for Veterans dealing with emotional upheavals or traumas and has proven effective for improving mental and physical health. It can be helpful for an emotionally upsetting event. If a Veteran has faced a massive trauma, it is best not to write about it for several weeks afterwards, as it may be too difficult to deal with some of the emotions that arise around what happened. While writing, people are encouraged to explore their deepest emotions and thoughts about this difficult life experience, tie it to their relationships with others, relate it to their past, present, or future, or connect it with who they may have been, who they would like to be, or who they are now. People may write about the same general issues or experiences on all days of writing, or they may choose to write about different topics each day.

There are a few simple guidelines recommended by Pennebaker:²¹

- **Writing topic.** You can write about the same event all four days or different events each day. You are encouraged to write about something that is extremely personal and important for you.
- **Length and frequency.** Write for 15-20 minutes each day for four consecutive days if you can. It is a bit more effective than writing four days over the course of several weeks.
- **Write continuously.** Once you begin writing, write continuously without stopping. Don't worry about spelling or grammar. If you run out of things to say, simply repeat what you have already written. Keep writing about the topic until the time is up.
- **Write only for yourself.** You are writing for yourself and no one else. After you complete the expressive writing exercise, you may want to destroy or hide what you have written. Write down whatever thoughts, feelings and reactions come to mind while reflecting on your experience. It may be helpful at a later date to share with a trusted person some of what you have written for additional support.

- **What to avoid.** If you feel that you cannot write about a particular event because it would be too upsetting, then don't write about it. Just write about events or situations that you can handle now.
- **What to expect.** It is common for people to feel somewhat saddened or depressed after writing, especially on the first day or two. Know that this is completely normal, if this happens to you. Typically, the feeling usually lasts just a few minutes or a few hours. It is a good idea to plan some time to yourself after your writing session to reflect on the issues you have been writing about and support yourself in any emotions that come up.
- **Considerations.** Writing about the same topic for too many days is not helpful. If, after several sessions, you feel you are not making progress, then you might need to stop and contact a health care practitioner.
- **When to discontinue the journaling exercise.** Writing exercises aren't for everyone. The writing may evoke strong feelings which may be helpful for you to experience and let go, but if the writing exercise evokes feelings that you cannot cope with, stop immediately and do something soothing for yourself. Experiencing symptoms of hypervigilance, stress or distress are signals to discontinue this journaling exercise immediately. Take care of yourself by doing something like practice diaphragmatic breathing, reach out to a friend or loved one, or go for a walk to center and calm yourself. If you experience lingering negative feelings you might benefit from some additional help. It is recommended to seek the professional advice of a psychologist, counselor, or physician to discuss these feelings and experiences.

(For more on therapeutic journaling, see the Power of Mind module on the Whole Health Library Website. The website is reviewed on page 209 of the binder.)

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