

MIND-BODY SKILLS I

It is possible to adapt, interweave, and integrate core mind-body principles and certain mind-body techniques in the course of a regular office visit.

Mind-Body Techniques

Using the power of the mind to influence the body: relaxation strategies

- Breathing
- Progressive muscle relaxation (PMR)
- Autogenic Training (AT)
- Hypnosis
- Imagery
- Biofeedback
- Meditation

Using the power of the mind to manage stress, pain and difficult life events.

- Cognitive behavioral therapy (CBT)
- Acceptance and Commitment Therapy (ACT)
- Eye movement desensitization and reprocessing (EMDR)
- Cognitive Processing Therapy (CPT) and Prolonged Exposure Therapy (PE)
- Creative arts therapies (CATs)
- Therapeutic journaling

INTRODUCTION TO MIND-BODY APPLICATIONS

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.

Using the power of the mind to influence the body: relaxation strategies

Extensive research indicates that relaxation therapies can beneficially influence the physiology of the body, reducing stress, improve coping with pain and boosting mood. Strong evidence supports using relaxation therapies to address a variety of medical and psychological difficulties. The National Institutes of Health Consensus Development Program defined relaxation techniques as the following:¹

.... a group of behavioral therapeutic approaches that differ widely in their philosophical bases as well as in their methodologies and techniques. Their primary objective is the achievement of nondirected relaxation, rather than direct achievement of a specific therapeutic goal. They all share two basic components:

1. Repetitive focus on a word, sound, prayer, phrase, body sensation, or muscular activity.
2. The adoption of a passive attitude toward intruding thoughts and a return to the focus.

These techniques induce a common set of physiologic changes that is the opposite of the fight-or-flight response, which results in decreased metabolic activity, heart rate, blood pressure, respiratory rate and slowed brain waves. Relaxation techniques may also be used in stress management (as self-regulatory techniques)....

The Relaxation Response:

Herbert Benson, a cardiologist and mind-body medicine pioneer, coined the term “relaxation response,” which refers to the body’s natural state of relaxation, as opposed to the state of hyperactivity of the nervous system associated with the fight-or-flight response.² A variety of mind-body practices all elicit the relaxation response.

BREATHING TECHNIQUES

Breathing techniques can be a useful introduction to self-management strategies and can be taught in the clinic or other settings. They are generally safe, portable and useful in a variety of situations, including during stress or a pain flare, as a way to manage painful procedures, and as a form of positive distraction away from a pain sensation. Breathing exercises are frequently taught to patients with chronic pain to quiet arousal, create physical relaxation, manage stress, and to provide a positive distraction. With practice, diaphragmatic breathing leads to a reversal of fight or flight, to a quieting response modulated by the parasympathetic nervous system.

Key concepts related to breathing strategies

- Shallow breathing can often accompany psychological difficulties that can result from anxiety and stress.
- Stress and anxiety are common problems for individuals with chronic pain.
- Shallow breathing can be a result of sympathetic hyperarousal, often referred to as “fight or flight response.”
- Through slower deeper breathing, a person can develop a way to minimize the physiological response to stress and activate more parasympathetic activity.
- Breathing techniques focus awareness on breathing rate, rhythm, and volume.

For more information, see the clinical tool, [*Diaphragmatic Breathing to Assist with Self-Management of Pain*](#).

Try It for Yourself: Breathing Techniques

Abdominal breathing. Take a minute or two to practice these four breathing techniques. Expand the belly outward. Let the belly expand on the inbreath before the chest does. The shoulders should not have to move. Take 10 slow, deep abdominal breaths.

1. Technique 1

Start simply by having them place a hand on the abdomen and gently attempt to breathe under that hand. If this is too effortful or they are “trying too hard” (over breathing or too forceful), move on to other techniques or see if they can reduce effort.

2. Technique 2

This next technique encourages deeper breaths. Have the patient breathe in for a count of “2” (with each counted number taking a second) and out for the count of “3.” If this feels too fast, try slowing it to breathing in for “3” and out for “4.” Adjust the numbers so that the exercise is comfortable and not stressful. The elongation of the outbreath can often create an opportunity for a deeper next breath.

3. Technique 3

In this technique, the individual inhales normally. On exhalation, the goal is to focus on exhaling all of the air completely out of their lungs. Then, rather than quickly inhaling again, they pause and wait until the body wants to breathe again. They should let any sense of effort drop away.

4. Technique 4

Imagery can be helpful to some patients. The patient imagines a breathing hole (like a whale’s or dolphin’s) in the bottom of each foot. With each breath, they imagine breathing in through the bottom of their feet and up to their abdomen. On the exhalation, this is reversed as they imagine breathing out the bottom of their feet.

MEDITATION

Meditation involves focusing one’s awareness in a non-judgmental, non-striving way, on the present moment. This may be supported by the use of a mantra, the breath, or something else that brings the mind repeatedly back to the present moment.

Meditation practices are becoming more popular for individuals with pain, especially for patients seeking ways to actively cope with their situation. The popular eight-week mindfulness-based stress reduction (MBSR) program teaches a number of meditation techniques. Mindfulness-based cognitive therapy (MBCT) is an adaptation of the MBSR program for depression relapse. Meditation is a safe and potentially efficacious complementary method for treating certain health problems including pain, stress related difficulties, and non-psychotic mood and anxiety disorders. (For more on mindful awareness, see the Mindful Awareness module on the Whole Health Library Website.)

Try It for Yourself: Meditation

As you may have already noted, this curriculum has many different Mindful Awareness moments, and most of them are intended to elicit the relaxation response and heighten awareness. For this exercise, try a simple challenge.

The challenge is this: Count 10 long, slow abdominal breaths without your mind wandering away from the task.

If you notice your mind wandering gently bring your awareness back. If you have lost count, simply start again. Many people find it hard even to focus for 3 full breaths without distraction. Remember though, that the ability to catch your mind wandering and gently bring it back is a key component of meditation practice.

Don't judge. Don't strive. Just stop, observe, let it go and return, as often as needed.

A MINDFUL BREATHING SCRIPT

Start by settling into a comfortable position and allow your eyes to close or keep them open with a softened gaze. Begin by taking several long slow deep breaths breathing in fully and exhaling fully. Breathe in through your nose and out through your nose or mouth. Allow your breath to find its own natural rhythm. Bring your full attention to noticing each in-breath as it enters your nostrils, travels down to your lungs and causes your belly to expand. And notice each out-breath as your belly contracts and air moves up through the lungs back up through the nostrils or mouth. Invite your full attention to flow with your breath.

Notice how the inhale is different from the exhale. You may experience the air as cool as it enters your nose and warm as you exhale. As you turn more deeply inward, begin to let go of noises around you. If you are distracted by sounds in the room, simply notice them and then bring your intention back to your breath. Simply breathe as you breathe, not striving to change anything about your breath. Don't try to control your breath in any way. Observe and accept your experience in this moment without judgment, paying attention to each inhale and exhale.

If your mind wanders to thoughts, plans or problems, simply notice your mind wandering. Watch the thought as it enters your awareness as neutrally as possible. Then practice letting go of the thought as if it were a leaf floating down a stream. In your mind, place each thought that arises on a leaf and watch as it floats out of sight down the stream. Then bring your attention back to your breath. Your breath is an anchor you can return to over and over again when you become distracted by thoughts.

Notice when your mind has wandered. Observe the types of thoughts that hook or distract you. Noticing is the richest part of learning. With this knowledge you can strengthen your ability to detach from thoughts and mindfully focus your awareness back on the qualities of your breath. Practice coming home to the breath with your full attention. Watching the gentle rise of your stomach on the in-breath and the relaxing, letting go on the out-breath. Allow yourself to be completely with your breath as it flows in and out.

You might become distracted by pain or discomfort in the body or twitching or itching sensations that draw your attention away from the breath. You may also notice feelings arising, perhaps sadness or happiness, frustration or contentment. Acknowledge whatever comes up including thoughts or stories about your experience. Simply notice where your mind went without judging it, pushing it away, clinging to it or wishing it were different and simply refocus your mind and guide your attention back to your breath.

Breathe in and breathe out. Follow the air all the way in and all the way out. Mindfully be present moment by moment with your breath. If your mind wanders away from your breath, just notice without judging it – be it a thought, emotion, or sensation that hooks your attention and gently guide your awareness back to your breathing.

As this practice comes to an end, slowly allow your attention to expand and notice your entire body and then beyond your body to the room you are in. When you're ready, open your eyes and come back fully alert and awake. The breath is always with you as a refocusing tool to bring you back to the present moment. Set your intention to use this practice throughout your day to help cultivate and strengthen attention.

Script written by Shilagh Mirgain, PhD, for UW Cultivating Well-Being: A Neuroscientific Approach

COGNITIVE-BEHAVIORAL THERAPIES

Cognitive behavioral therapy is widely available in the VA and has strong research supporting its use for many challenging-to-treat conditions.

Cognitive behavioral therapy (CBT) is at present the most widely used psychotherapeutic treatment for adults with chronic pain. CBT-based treatments for chronic pain and secondary depression and anxiety promote personal control and self-management strategies and use of structured techniques involving multiple methods to modify cognition and behavior. It is typically considered a short-term treatment which promotes active coping strategies. These include:

- Increasing knowledge about pain
- Addressing beliefs that may interfere with engagement in activities
- Improving patients' skills and change their behavior
- Improving physical and social activity³

Patients learn how to identify and change negative, maladaptive thought patterns that have a negative influence on behavior. Patients with a more positive attitude toward life appear to be able to cope better and have less distress, avoidance, and disability than those who tend to take a more negative view.⁴ One way to examine thinking is to identify any typical, unhelpful thinking patterns characterized as cognitive distortions. The following list of cognitive distortions is adapted and taken from *The Feeling Good Handbook* written by David Burns, MD in 1989.⁵

Ten cognitive distortions

1. **All or nothing thinking.** Sometimes called “black and white thinking.” If your performance falls short of perfect, you see yourself as a total failure. E.g., “Either I do it right or not at all.”
2. **Overgeneralization.** You view a single negative event as a never ending pattern of defeat. You are overly broad in the conclusions you draw. E.g., “Everything is always horrible.”
3. **Mental filter.** You only pay attention to certain types of evidence. You pick out a single negative detail and dwell on it exclusively. E.g., “If I can’t do it the way I did it before, there is no point in doing it.”
4. **Disqualifying the positive.** You discount the good things that have happened or reject positive experiences by insisting they “don’t count” for some reason or another. E.g., “It took me twice as long to finish that project, so I can’t do anything anymore.”
5. **Jumping to conclusions.** You make negative interpretations even though there are no definite facts that support your conclusion.
 - **Mind reading**
You imagine you know what others are thinking and arbitrarily conclude that someone is reacting negatively to you, but you do not verify this.
 - **Fortune telling**
You predict the future and anticipate things will turn out badly.
6. **Magnification or minimization.** You blow things out of proportion (catastrophizing) or inappropriately shrink something to make it seem less important. E.g., “Since I am sick and can’t make it to work, I am going to be fired.” Or, “They were just being nice to me, they don’t really care.”
7. **Emotional reasoning.** You assume that your negative emotions reflect the truth about how things are. E.g., “I feel like a failure, therefore it must be true.”
8. **Should statements.** You criticize yourself (or other people) with critical words like “should,” “must,” or “ought.” The emotional consequence of these words is guilt.
9. **Labeling.** You assign labels to yourself or other people, e.g., “I am a loser,” “He is such an idiot.”
10. **Personalization.** You blame yourself or take responsibility for something you weren’t entirely responsible for, or you blame other people and deny your role in the problem.

RESTRUCTURE YOUR THOUGHTS

The first thought that you think may be automatic, but the more you practice noticing your thinking you can consciously choose how to continue. By slowing down and examining your thinking, you can choose to edit your thinking to pick thoughts that are more supportive and help you feel good about what you are doing and going through. A great way to do this is with the thought restructuring exercise using the ABCD model developed by Albert Ellis.⁶

The ABCD model is an opportunity to practice restructuring your thoughts to ones that are more balanced, realistic and helpful with coping. You can also begin to notice the impact that automatic thoughts have on your mood, your body and your behavior. Use the ABCD cognitive restructuring exercise below to practice this skill.

Exercise: ABCD cognitive restructuring

This cognitive restructuring exercise can assist veterans in becoming aware of and editing their thinking to have more helpful thoughts. *Never underestimate the power of your own thoughts to help or hurt you.* . A great way to do this is with the thought restructuring exercise using the ABCD model developed by Albert Ellis.⁶

Instructions

Take a few minutes to reflect on a stressful situation or unpleasant event that occurred recently. See if you can identify the automatic thoughts and beliefs that may have occurred in response to this event. Notice what the consequences were of this automatic thought or way of thinking, including the impact that it had on you emotionally, physiologically and behaviorally. Then, practice reframing this thought to something more balanced and useful. One way to do this is to ask yourself the following questions:

- What kind of thought would feel more helpful?
- What thought would promote better peace of mind and better ability to cope with this situation?
- What thought would be more balanced and more realistically reflect the situation at hand?

A. – **A**ctivating Event: Identify the stressful or unpleasant situation.

B. – **B**elief system or thoughts about the event (you can include cognitive distortions or negative thoughts about the stressor).

C – **C**onsequences of the thoughts (you can include how it made you feel and how your behavior was affected).

D – **D**isputing. Identify more realistic, balanced or positive thoughts to replace your negative or dysfunctional ones.

When you stay tuned in to your thoughts throughout the day, you can catch yourself when you start to think negatively. When you identify thoughts that are negative or one of the cognitive distortions, ask yourself the following four questions:

1. Is this thought helpful and true?
2. What impact does this thought have?
3. Where did I learn this thought?
4. Does this thought promote peace of mind and well-being?

See the *Working with Pain-Related Thoughts* clinical tool, under the binder tab, “Tools,” for information on some simple cognitive exercises clinicians can incorporate into patient care.

ACCEPTANCE AND COMMITMENT THERAPY (ACT)

Each of us literally chooses, by way of attending to things, what sort of universe he shall appear to himself to inhabit. —William James, 1842-1910

In recent years, there has been increasing research in acceptance-based therapies, such as Acceptance and Commitment Therapy (ACT) and Mindfulness-Based Cognitive Therapy (MBCT). The focus of these approaches is not so much on control or suppression of pain, but rather on acceptance of pain. In contrast to the focus in CBT on challenging and changing distorted thoughts around controlling pain, the focus in acceptance based treatments is on increasing individuals’ capacity to be both aware and nonjudgmental of present moment experiences, including pain and their reaction to pain.⁷ The basis for these therapies is the idea that it is perhaps misguided to assume that negative internal experiences such as chronic pain will resolve. In fact, assuming that pain will resolve may actually contribute to greater distress and interfere with healing.⁸ The mechanism used in ACT treatment is presumed to be acceptance, in contrast to control-orientated treatments (e.g., controlling your thoughts) found in CBT. Hayes and colleagues defined psychological acceptance within the ACT paradigm as the willingness to remain in contact

with thoughts and feelings without having to follow them or change them.⁹ Acceptance of pain involves the following:¹⁰

- Disengagement from the struggle with pain
- Grieving the loss of a pain free life
- Adopting a realistic approach to pain
- Re-engagement in activity without trying to avoid, restrict or control pain.

Patients are encouraged to adopt a “new normal,” and in doing so, they figure out how to take value-based actions that increase a sense of meaning and purpose in life despite the pain condition.

See the clinical tool, *Working with Pain-Related Thoughts*, under the binder tab, “Tools,” for more information on how to teach these approaches to patients.

SLEEP HYGIENE

Sleep and pain are bidirectional. With more pain, sleep quality suffers. As sleep quality suffers, people often experience more pain.

There is a growing literature addressing the link between sleep disturbances and chronic pain. Research suggests that chronic pain is frequently associated with sleep disturbances¹¹, with developing insomnia in the future^{12,13} and that poor nighttime sleep is associated with increased pain and disability.¹² Proactive self-care for treatment of sleep related issues is often recommended as part of a self-management plan. Physical exercise is one such important tool for addressing multiple sleep-related issues, including insomnia.

Strategies to Increase Endogenous Melatonin to Improve Sleep

- Ensure a dark environment for sleep. Shift workers should use eye covers or extra curtains on windows to reduce light exposure.
- Avoid exposure to screens from computers, TVs, tablets, and cell phones before bed. The blue light they emit can inhibit melatonin.
- Keep all electrical devices (e.g., cell phones, clock radios, and computers) at least 3 feet from the head of the bed while sleeping. Avoid electric blankets.
- Eat vegetables and fruits. They contain the nutrient building blocks for melatonin production.
- Keep the sleeping environment cool.

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

EXERCISE/MOVEMENT FOR THE SELF-MANAGEMENT OF PAIN

Physical activities are a safe, low-cost way of managing pain, and they reduce anxiety and depression, improve physical capacity, increase functioning and independence, and reduce morbidity and mortality.¹⁴ When applied appropriately to the chronic pain condition, physical activity significantly improves pain and related symptoms.¹⁵⁻¹⁷

Exercise and movement is covered extensively in the Working Your Body, Chronic Pain, and Low Back Pain modules on the Whole Health Library Website. The website is reviewed on page 209 of the binder. The clinical tool, *Working the Body in Chronic Pain: What Clinicians Need to Know*, under the binder tab, “Tools,” is worth reviewing as well.

This material was compiled by Shilagh Mirgain, PhD, based in part on the Self-Management of Chronic Pain module by Shilagh Mirgain, PhD, and Janice Singles, PsyD, and on the Recharge module by John McBurney, MD, which are available on the Whole Health Library Website, <http://projects.hsl.wisc.edu/SERVICE/>. See binder page 209 for more information.

References

1. National Institute of Health Consensus Development Program. Integration of behavioral and relaxation approaches into the treatment of chronic pain and insomnia. U.S. Department of Health & Human Services website. Available at: <http://consensus.nih.gov/1995/1995BehaviorRelaxPainInsomniata017html.htm>. Accessed August 30, 2014.
2. Benson H. The relaxation response: Its subjective and objective historical precedents and physiology. *TINS*. 1983;6:281-284.
3. Akerblom S, Perrin S, Rivano Fischer M, McCracken LM. The mediating role of acceptance in multidisciplinary cognitive-behavioral therapy for chronic pain. *J Pain*. 2015;16(7):606-615.
4. Taylor B. Promoting self-help strategies by sharing the lived experience of arthritis. *Contemp Nurse*. 2001;10(1-2):117-125.
5. Burns DD. *The feeling good handbook: Using the new mood therapy in everyday life*. William Morrow & Co; 1989.
6. Ellis A, Dryden W. *The Practice of Rational Emotive Behavior Therapy*. New York, N.Y.: Springer Pub. Co.; 1997.
7. Davis MC, Zautra AJ, Wolf LD, Tennen H, Yeung EW. Mindfulness and cognitive-behavioral interventions for chronic pain: Differential effects on daily pain reactivity and stress reactivity. *J Consult Clin Psychol*. 2015;83(1):24-35.
8. Wetherell JL, Afari N, Rutledge T, et al. A randomized, controlled trial of acceptance and commitment therapy and cognitive-behavioral therapy for chronic pain. *Pain*. 2011;152(9):2098-2107.
9. Hayes SC. *Acceptance and change: Content and context in psychotherapy*. Context Press; 1994.
10. McCracken LM, Eccleston C. Coping or acceptance: What to do about chronic pain? *Pain*. 2003;105(1-2):197-204.
11. Morin CM, Gibson D, Wade J. Self-reported sleep and mood disturbance in chronic pain patients. *Clin J Pain*. 1998;14(4):311-314.

12. Tang NK, McBeth J, Jordan KP, Blagojevic-Bucknall M, Croft P, Wilkie R. Impact of musculoskeletal pain on insomnia onset: A prospective cohort study. *Rheumatology (Oxford)*. 2015;54(2):248-256.
13. Aili K, Nyman T, Svartengren M, Hillert L. Sleep as a predictive factor for the onset and resolution of multi-site pain: A 5-year prospective study. *Eur J Pain*. 2015;19(3):341-349.
14. Sullivan MJ, Thorn B, Haythornthwaite JA, et al. Theoretical perspectives on the relation between catastrophizing and pain. *Clin J Pain*. 2001;17(1):52-64.
15. Ambrose KR, Golightly YM. Physical exercise as non-pharmacological treatment of chronic pain: Why and when. *Best Pract Res Clin Rheumatol*. 2015;29(1):120-130.
16. Daenen L, Varkey E, Kellmann M, Nijs J. Exercise, not to exercise, or how to exercise in patients with chronic pain? Applying science to practice. *Clin J Pain*. 2015;31(2):108-114.
17. Naugle KM, Fillingim RB, Riley JL, 3rd. A meta-analytic review of the hypoalgesic effects of exercise. *J Pain*. 2012;13(12):1139-1150.