

Low Back Pain

Integrative Health emphasizes mindful awareness and self-care along with conventional and integrative approaches to health and well-being. The Circle of Health highlights eight areas of self-care: Surroundings; Personal Development; Nutrition; Recharge; Family, Friends, & Co-Workers; Spirit & Soul; Mind and Emotions; and Physical Activity. The narrative below shows what an Integrative Health clinical visit could look like and how to apply the latest research on complementary and integrative health (CIH) to low back pain.

An Integrative Health Approach to low back pain starts with developing a relationship with the patient, listening to their experience of their pain and suffering, and often validating/being present with the sadness, fear, or anger they feel in their lives. From there, a discussion and understanding of the patient's Meaning, Aspiration and Purpose (MAP) may unfold through questioning: What matters to you? What do you live for? What do you want your health for? By shining a light on these questions in the context of a relationship with the patient, then a conversation may evolve that incorporates anti-inflammatory diet, supplements, yoga, Pilates, spinal manipulation and other complementary approaches to prevent and treat the pain.

Meet the Patient

Linda is a 42-year-old woman who has suffered from chronic low back pain since a motor vehicle accident 10 years ago. She has tried many of the standard treatments for chronic back pain but has become frustrated with the lack of progress. She has been reading about various alternative treatments for her pain and is requesting that her clinician help her to navigate these options.

Linda's low back pain has waxed and waned over the last 10 years, but it has been progressively worsening in the past year. She has tried various treatments for her pain such as physical therapy, steroid injections, and medications, including muscle relaxants and opioids. She currently takes hydrocodone/acetaminophen for pain one to three times daily and often uses cyclobenzaprine, a muscle relaxant, before bed. Linda has become frustrated with the current approach to her pain. She suffers from medication side effects, including constipation, poor memory, and drowsiness. Despite these side effects, she does not feel that her pain is well controlled. Her doctor has recommended that she take home and complete a Personal Health Inventory (PHI) to help her identify other possible approaches to treating her pain.

Linda is able to identify the stressors in her life as contributors to her pain. She is currently forced to limit herself to part-time work due to the ongoing pain. She is struggling to make ends meet financially as she is a single parent of two children. She and her ex-husband divorced when her children were infants, and he has not been involved in their lives since that time, except for sending a child support check every month. Her oldest son is 15 and has severe autism. They receive disability checks for him, which have provided the family with some additional income. Her youngest son is 13 and has recently begun to struggle with behavioral issues in school. Linda's parents live nearby; however, her relationships with them have been

fraught with various conflicts throughout Linda's life. Linda's brother has multiple health issues and has become very dependent on her for support.

Linda identifies herself as the caretaker of others and rarely makes time for herself. Healthy diet, exercise, and good sleep have been on the back burner for many years. Linda smokes, and she drinks a fair amount of caffeine. She enjoys reading and painting, but has not been able to find the time to make these activities a regular part of her life. She rarely interacts socially with others and is no longer involved in relationships through her church.

As Linda worked through the PHI, it became apparent that she needed to dedicate more time and effort to self-care. Her care team helped her develop a personal health plan (PHP) that incorporated lifestyle changes and integrative therapies for her pain.

Personal Health Inventory

Linda rates herself as a 1 out of 5 for her overall physical well-being and a 2 for overall mental and emotional well-being. When asked what matters most to her and why she wants to be healthy, Linda responds:

"My children are the most important people in my life. I want the best for them. I often worry about how I will be able to continue to support them financially, especially my older son, who has disabilities and will always need my assistance. I want to give my kids a better childhood than I had, where my parents argued all the time. Spending time with my children brings me joy. I also enjoy feeling like I have time to stop and actually read a book or catch up with an old friend."

The Personal Health Inventory (PHI) has eight areas of self-care where Linda rates herself on where she is, and where she would like to be. Linda decides to first focus on the areas of Mind and Emotions and Family, Friends, and Co-Workers by trying out acupuncture or physical therapy to relieve pain and build stronger relationships as a support system.

For more information, refer to [Linda's PHI](#).

Introduction

At some point in their lives, 9 out of 10 people experience low back pain,¹ and 50% of working people experience it annually.² It is the fifth most common reason for all physician visits in the United States.¹ The total annual costs of low back pain (LBP), including lost wages and reduced productivity, are more than \$50 billion annually.² Five percent of people with back pain disability account for 75% of the costs associated with it.³ Risk factors that have been associated with back pain include smoking, obesity, age, female gender, physically strenuous work, sedentary work, psychologically strenuous work, low educational attainment, Workers' Compensation insurance, job dissatisfaction, and psychological factors such as somatization disorder, anxiety, and depression.⁴

Acute back pain lasts 0-6 weeks. Subacute pain lasts 6-12 weeks, and chronic LBP is any pain present for longer than that. Most acute cases resolve, but there is a 20%-35% recurrence rate, and 5%-20% of people with acute pain will develop chronic pain.²

Because chronic back pain is notoriously difficult to treat, it is the most common reason for Americans to seek complementary approaches.⁵

The most important predictors of ongoing disability from chronic low back pain include fear, avoidance, inappropriate pain coping behaviors, signs on physical exam that do not have good anatomical explanations, and psychiatric comorbidities.²

This overview provides information on both self-care and professional care approaches to LBP. Professional care approaches include complementary as well as conventional treatments.

Self-Care

Nutrition

Anti-Inflammatory Diet⁶

Evidence shows that a balanced diet of whole foods including fruits, vegetables, whole grains, and lean meats, along with the elimination of processed sugars, manufactured foods, and unhealthy fats (omega-6 fats and trans fats), helps reduce pain and inflammation. Additionally, omega-3 fatty acids, B vitamins, vitamin D, fiber, and antioxidants also have properties that reduce pain and inflammation. It is best to get these nutrients through diet rather than as a supplement, if possible. Refer to "[The Anti-Inflammatory Lifestyle](#)" Tool.

Foods to Incorporate

As with so many other conditions, diet plays a fundamental role for people with back pain. Encourage people to increase the following²:

- **Flavonoids.** Foods containing flavonoids include broccoli, blueberries, grapefruit, onions, apples, oranges, soybeans, chocolate, pomegranate, lime, lemon, tomato, carrot, red wine, and tea. Quercetin is an antioxidant flavonoid that has anti-inflammatory properties. It is found in apples, red onions, grapes, and green tea.
- **Vitamin C.** Foods containing vitamin C include cabbage, red potatoes, strawberries, tangerines, red bell peppers, oranges, and kiwis.
- **Vitamin E.** Foods containing vitamin E include almonds, peanut butter (limit portion size due to high caloric content), avocados, olive oil, peanuts, and sunflower seeds.
- **Vitamin D.** Food high in vitamin D include fortified milk, cheese, egg yolk, cod liver oil, oysters, canned salmon, and tuna.
- **Foods high in omega-3s.** These include cold-water fish, ground flax or flax oil, green leafy vegetables, and walnuts.
- **Spices that contain anti-inflammatory compounds.** These include ginger, rosemary, turmeric, oregano, cayenne, clove, and nutmeg.
- **Dietary fiber.** Ideally we should get our dietary fiber from eating fruits, whole grains, and vegetables. The goal is 30 grams per day.

Foods to avoid

- **Foods high in saturated, trans, and omega-6 fats** found in red meat, dairy, partially hydrogenated oils, corn/cottonseed/peanut/safflower/soy and sunflower oils, and foods with a long shelf life.

- **Foods high in simple carbohydrates.** These include white bread or bagels, English muffins, white rice, and rice and corn cereals.

Physical Activity

A number of different approaches to movement and physical activity have the potential to help with back pain. These include yoga, pilates, McKenzie Method Therapy, Alexander Technique, Balneotherapy, Physical Therapy, tai chi, and exercise in general.

Yoga⁷

Yoga is considered a spiritual science of self-realization. Its goal is restoring and/or enhancing wholeness in body, mind, and spirit. Some schools of yoga focus more on philosophy, while others focus more on physical and mental practices. The word “yoga” means “to yoke” or “to join.” Yoga arose in India, at a time before the Vedic age, as far back as 2600 BCE. It has roots in both Hinduism and Buddhism. Yoga was introduced in the West in 1893 by a Hindu missionary named Swami Vivekananda.

Yoga is the fastest growing and most widely used complementary modality, with an estimated 15 million participants in the United States.⁸ It includes physical postures (asanas), ethical disciplines, breath control (pranayama), sensory methods, affirmations and visualizations, prayer and mantra, and meditation. There are many forms, or types, of yoga practice.

Mechanisms of Action. Yoga improves strength, flexibility, and balance, leading to optimized joint alignment and function.⁷ Yoga takes advantage of the fact that when one muscle of an agonist-antagonist pair contracts, the other will relax within two minutes because of inhibitory input from the muscle’s Golgi tendon organs. This is one way in which a yoga pose can relax tight muscles. Common agonist-antagonist muscle groups in yoga include hamstrings and quadriceps, as well as the back extensors and abdominal muscles. In addition, yoga enhances parasympathetic function, leading to increased release of neurotransmitters (which transmit information between nerve cells) such as norepinephrine, serotonin, substance P, and nitric oxide. Yoga decreases cortisol (the hormone released when a person is experiencing stress). Other potential mechanisms for yoga’s benefits include improved sleep, self-efficacy, body awareness, and decreased fear avoidance, psychological distress, and perceived stress.⁹

Evidence. Some important highlights of recent yoga studies included the following:

- A 2011 meta-analysis of eight randomized controlled trials (RCTs) and 743 patients found that yoga decreases pain and improves disability. (There was a medium effect post-treatment, and a small effect at follow-up). The meta-analysis found that the different types of yoga (Hatha, Iyengar, Viniyoga) yielded statistically significant similar effects. Vinyasa was not studied.¹⁰
- A 2011 systematic review of 17 studies including 1,626 participants found that yoga improved pain and functional outcomes associated with a range of musculoskeletal conditions including LBP.⁹
- One study compared standard therapy to biweekly Iyengar yoga for six months in 90 study participants with chronic low back pain (CLBP). Yoga was found to improve disability, pain intensity, and depression at three and six months compared to standard care. Pain medication use was reduced in both groups.¹¹



- Sherman and colleagues found that Viniyoga and stretching resulted in statistically and clinically significant improvements in function and pain at three and six months compared to reading a self-care book.¹²
- A few studies of Hatha yoga showed a decrease in pain and improvements in balance, hip flexibility, disability, and depression, but no improvement over standard exercise. However, one study lacked a control group and the other was not adequately powered.^{11,13}
- Another interesting study of 95 participants found that 12 weeks of once- and twice-weekly Hatha yoga classes reduced pain and improved function in primarily minority adults with low socioeconomic function. Twice-weekly classes were not more successful than once-weekly classes. This was a low-quality RCT.¹⁴
- When compared with back strengthening exercises, yoga can be more effective in decreasing pain after 26 weeks of treatment.¹⁵
- Six studies reported positive effects on mood in congruence with effects on pain.¹⁶
- A 2017 Cochrane review of yoga for chronic nonspecific low back pain reviewed data from 12 trials including a total of 1,080 participants. The majority of people were involved in trials using Iyengar, Hatha, or Viniyoga forms of yoga. The authors concluded that there was low to moderate certainty evidence that yoga led to small to moderate improvements in back-related function at three and six months compared to non-exercise controls.¹⁷

Guidelines. Based on the current body of research, the American College of Physicians and the American Pain Society recommended yoga as part of their joint national back pain guidelines.^{3, 18}

EASY Mnemonic and Yoga

Effects

The evidence for yoga for low back pain is moderate in quality, but suggests that it is beneficial.

Access

The cost of yoga varies. In some cases, it may be covered by insurance. A typical session can cost around \$10-20 per person.

Safety

Generally, the risk of harming oneself in yoga is low as long as individuals are mindful of their body's limitations. It is also important to seek out a well-qualified instructor who has had training in how to prevent injury.

You

Yoga is a practice that may not always match the personal opinions, beliefs, and culture of the patient. It is important to keep this in mind when considering it as a treatment option.

Pilates

Pilates mixes elements of gymnastics, martial arts, yoga, and dance with the goals of improved general flexibility, core strength and posture, and coordinates movement with breathing. It focuses on strengthening the transverse abdominis (a muscle that forms the walls of the abdominal cavity) and multifidus (muscles along the spine), which provides improved spinal stability in people with low back pain.¹⁹ A 2013 systematic review of five separate systematic reviews, found that there is inconclusive evidence that Pilates is effective in reducing pain and disability in people with chronic low back pain due to poor quality of studies and differing conclusions.²⁰ A 2015 Cochrane review showed there was low to moderate quality evidence that Pilates was more effective than minimal intervention for pain and disability due to low back pain. There was no evidence that Pilates was superior to other forms of exercise.²¹ A 2018 review suggested that more recent clinical trials have found Pilates to be effective in reducing pain and disability.²²

McKenzie Therapy

McKenzie Method Therapy is a type of physical therapy/exercise that uses self-treatment strategies and passive procedures by a trained therapist. A 2004 systematic review of six trials found decreased pain and disability in the short term (less than three months) than other standard therapies such as nonsteroidal anti-inflammatory drugs (NSAIDs), an educational booklet, back massage with back care advice, strength training with therapist supervision, and spinal mobilization. A 2018 meta-analysis reviewed that there is moderate- to high-quality evidence that the McKenzie Method is not superior to other rehabilitation strategies for reducing acute low back pain and disability. The study did reveal that when compared to exercise alone, McKenzie therapy has moderate- to high-quality evidence that it is superior for the treatment of chronic low back pain and disability. There was no significant difference when comparing McKenzie therapy to manual therapy plus exercise.²³

Alexander Technique

The Alexander Technique offers an individual approach to develop lifelong skills for self-care that help people recognize, understand, and avoid poor habits affecting postural tone and

neuromuscular coordination. Lessons involve continuous personalized assessment of individual patterns of habitual musculoskeletal use when stationary and in motion.²⁴ An RCT of 579 patients with chronic or recurrent low back pain compared normal care (control condition) to 6 sessions of massage, 6 sessions of Alexander Technique lessons, and 24 Alexander Technique lessons. Half of each of these groups were randomized to an exercise prescription. Exercise and lessons in Alexander Technique, but not massage, continued to show efficacy at one year.²⁴ A 2012 review suggested that there is strong evidence that practicing the Alexander Technique leads to improved low back pain as well as decreased incapacity.²⁵

Aqua/Hydro/Balneotherapy

Balneotherapy is the treatment of disease by bathing in water between 34 and 36 degrees Celsius (sometimes referred to as spa therapy). Aquatic Therapy/Hydrotherapy involves exercises that are performed in the water. Several mechanisms for how these therapies can be effective have been proposed²⁶:

- The warmth and buoyancy of water may block nociception by acting on thermal receptors and mechanoreceptors.
- Warm water may also enhance blood flow and facilitate muscle relaxation.
- Warm water may have a hydrostatic effect that reduces peripheral edema and dampens sympathetic activity.
- These therapies allow for greater mobility while mitigating the effects of gravity such as joint stress.

A systematic review of seven RCTs (three on aquatic exercise, four on Balneotherapy) between 1990 and 2008 determined that aquatic exercise had a small but statistically significant short-term effect on pain relief and measures of locomotor disease (e.g., arthritis, rheumatoid disease, and low back pain). However, long-term effectiveness was unclear. There was insufficient evidence to evaluate Balneotherapy due to the poor quality of the studies.²⁷ A more recent 2015 review of Balneotherapy as a treatment for chronic back pain found eight relevant randomized controlled studies all of which demonstrated that there is encouraging evidence that this may be an effective treatment. The trial quality is still poor, however, and thus better designed studies are needed before more definitive conclusions can be made.²⁸

Tai Chi and Qi Gong

Tai Chi and qi gong are both ways of moving the body that may improve health. Tai chi, known in Chinese as tai ji quan, translates as “Grand Ultimate Fist” and has its origins as a martial art and evolved from the movements and practice of qi gong. Qi gong literally means “to cultivate qi,” referring to the qi or “vital energy” that Chinese medical theory identifies as one of the supports for our health and well-being.

A 2019 meta-analysis of 11 randomized controlled trials assessed the effect of tai chi and/or qi gong on lower back pain. The results showed that these interventions led to significant improvements in the visual analogue scale, Roland-Morris Disability Questionnaire, the Oswestry Disability Index, and cognitive function.²⁹ In the American College of Physicians 2017 Clinical Practice Guideline for management of back pain, Tai Chi is recommended as one of the first-line nonpharmacological approach to chronic back pain.¹⁸

General Exercise and Physical Therapy (PT)

Exercise and Physical Therapy (PT) are commonly recommended for people with back pain. Flexion, extension, and flexibility exercises are the most commonly prescribed. The goal is to increase spinal mobility, strength, and neuromuscular control.³⁰ The 2009 NICE guidelines, created by a European group that did an exhaustive review of the literature in 2009, recommended the following for clinicians³¹:

- Advise people with LBP that staying physically active is likely to be beneficial.
- Advise people with LBP to exercise.
- Consider offering a structured exercise program tailored to the individual with pain or a group supervised exercise program.
- Exercise programs may include aerobic activity, movement instruction, muscle strengthening, postural control, and stretching.

Research on Exercise and PT for Back Pain. A number of studies have evaluated the use of exercise and PT for back pain. Included among the highlights are the following:

- A 2009 systematic review summarizes four other systematic reviews that assessed the effects of exercise on nonspecific low back pain (NSLBP). Moderate/good quality evidence showed that exercise programs (including general physical fitness, aerobic exercise, muscle strengthening, flexibility, and stretching) reduce sick leave and improve pain and disability in CLBP.³²
- A 2004 systematic review of 15 trials determined that trunk strengthening is effective compared to no exercise and that increased exercise intensity and motivation increased treatment effects. Trunk strengthening was no better than McKenzie method or aerobics.³³
- A 2008 systematic review of 16 studies found conflicting evidence for the use of stabilization exercises (strengthening targeted abdominal and extensor muscles).³⁴
- A 2005 Cochrane review of 61 RCTs found strong evidence that exercise therapy is as effective at decreasing pain and improving function as other conservative treatments. It did not distinguish types of exercise.³⁵
- A 2011 study compared specific treatment recommendations used by physical therapists. They found that advice and education were most used, followed by exercise, then mobilization, then electrotherapy, and lastly manipulation.³⁶
- A 2015 Cochrane review showed that there was inconclusive evidence that muscle energy technique was helpful to treat nonspecific low back pain. The studies were too small and at high risk of bias.³⁷
- A 2016 Cochrane review assessed the effect of motor control exercise (focused on activating/coordinating deep trunk muscles) in treating nonspecific low back pain. Evidence suggests that this type of exercise is more effective than minimal intervention to reduce pain, but probably does not affect disability. This review shows that motor control exercise has clinically similar effects to other forms of exercise or manual therapy for both acute and chronic low back pain.³⁸
- Of note, a recent review of 66 systematic reviews of physical therapy as a treatment for low back pain showed that the abstracts of many of these reviews put a positive “spin” on their conclusions. Specifically, the authors of this paper had fair to moderate agreement that the abstracts of the 57 non-Cochrane reviews were not consistent with

the full text. Nine Cochrane reviews were found to have full consistency between their abstract and full text.³⁹

Mind and Emotions

Behavioral Therapy

For information on specific behavioral therapies related to back pain, refer to the overview, "[Self-Management of Chronic Pain](#)."

Mindfulness Meditation

As described in the "[Mindful Awareness](#)" Integrative Health overview, mindfulness is the nonjudgmental cultivation of moment-to-moment awareness of thoughts, emotions, and physical sensations. Mindfulness-Based Stress Reduction (MBSR) was created as an eight-week course to enhance learners' mindful awareness. The meditations taught include sitting, walking, body scan, compassion, breathing, and other meditation techniques.⁴⁰ MBSR teaches individuals to manage their experience of stress (such as pain) by responding more effectively and less reactionary.⁴¹ Refer to the "[Meditation](#)" tool, as well as the "[Mind and Emotions](#)" Integrative Health overview in general, for more information. Some key research findings related to mindfulness include the following:

- Mindfulness can alter pain sensation in the brain. One of the parts of the brain that mindfulness meditation inhibits is the anterior cingulate cortex. Inhibition of this and other areas on functional MRI correlates with decreased pain sensation and more adaptive emotional responses.^{42,43}
- A qualitative study of 27 adults with CLBP who completed an eight-week MBSR course—consisting of daily meditations using body scan, sitting practice, and walking meditation—noted improved pain, sleep, mood, attention, and energy. Methods of pain reduction used were distraction, increased body awareness leading to behavioral change, better pain coping, and direct pain reduction through meditation.⁴⁴
- In another study of 36 patients with CLBP, 12 sessions of breath therapy were compared to high-quality extended PT. The results showed significant improvement with breath therapy comparable to high-quality PT.⁴⁵
- One study assigned 25 patients with failed back surgery syndrome (persistent back or leg pain after one or more spine surgeries) to MBSR or a control condition. At 12-week follow-up, the MBSR group had improved pain and quality of life, and a decrease in disability and use of pain medication.⁴¹
- Mindfulness training works better than distraction for pain in individuals who have a tendency to catastrophize about their pain symptoms.⁴⁶
- A 2017 systematic review and meta-analysis reviewed seven randomized controlled trials involving a total of 864 participants. When compared with usual care, MBSR was associated with short-term improvements in both pain intensity and physical functioning. Benefits were not sustained long-term. When compared with an active control group, the effects of MBSR were similar in both the short- and long-term.⁴⁷
- In 2018, a qualitative review assessed the experience of 25 adults aged 65 years or older who had participated in an eight-week mindfulness program. The analysis showed that by doing this training, older adults experienced fewer negative emotions related to

pain (e.g., fear of pain), had a different perspective/change in awareness about pain, and noticed a reduction in the significance of pain.⁴⁸

Hypnosis

One moderate quality trial of hypnotherapy showed improved pain in hypnosis and relaxation groups over placebo group. There was no difference between the hypnosis and relaxation groups.⁴⁹ A 2015 randomized controlled trial took place at the Houston VA hospital system, in which clinical hypnosis was compared with biofeedback as interventions to support people with chronic low back pain. The authors concluded that two sessions of self-hypnosis with audio recordings for home practice may be as effective as eight in-person sessions of hypnosis therapy to reduce pain intensity. Both of these hypnosis interventions were better than an active biofeedback control group and benefits were maintained at six months.⁵⁰ A 2018 randomized controlled trial involving 100 people with chronic low back pain demonstrated that pain education combined with clinical hypnosis was better than pain education alone in improving “lower worst pain intensity” and disability at two weeks post-intervention. At three months the combined group still reported lower worst pain intensity compared to pain education alone.⁵¹

Conventional Therapies

Of course, what is labeled as conventional versus complementary changes, particularly as a therapy becomes more popular, is funded through insurance or other programs, or is supported by increasing amounts of research.

Imaging

The consensus across major international LBP guidelines is that imaging, including plain radiographs, CT, and MRI, are of limited value in the majority of patients with back pain.² This is due to the fact that abnormal findings are common in individuals who are asymptomatic and that findings poorly correlate with symptom severity and clinical outcomes.² Not only are findings of such imaging studies often irrelevant, but they may also lead patients to foster detrimental beliefs about their conditions.²

- The clinical guidelines put forth by the ACP (American College of Physicians) and APS (American Pain Society) in 2007 recommend that:
 - Clinicians perform diagnostic imaging and testing for patients with low back pain when severe or progressive neurologic deficits are present, or when serious underlying conditions are suspected on the basis of history and physical examination (strong recommendation, moderate-quality evidence)³
 - Clinicians evaluate patients with persistent low back pain and signs or symptoms of radiculopathy or spinal stenosis with MRI (preferred) or CT only if they are potential candidates for surgery or epidural steroid injection (for suspected radiculopathy). (Strong recommendation, moderate quality evidence)³
- NICE Guidelines from the United Kingdom in 2009 suggest against offering x-ray of the lumbar spine for the management of nonspecific low back pain.³¹

Medication

The following have been offered as suggestions about the appropriate use of medications for LBP treatment³:

- For patients with LBP, clinicians should consider the use of medications with proven benefits in conjunction with back care information and self-care. For most patients, first-line medication options are acetaminophen or NSAIDs.³ Patients should be instructed on proper dosing of both medications.
- There is moderate to strong evidence indicating effectiveness for weak opioids. Evidence supporting use of stronger opioids is limited.
- Benzodiazepine medicines are effective for short-term pain relief in acute low back pain (ALBP) or acute exacerbations of CLBP. Best if restricted to use before bed.
- Non-benzodiazepine muscle relaxants are effective for ALBP and are not recommended for CLBP.
- Tricyclic antidepressants (TCAs) should not be used as first line for CLBP.
- Serotonin reuptake inhibitors (SRIs) have not been shown to be effective for CLBP.
- Serotonin norepinephrine reuptake inhibitors (SNRIs) (duloxetine and venlafaxine) have not been evaluated for LBP.
- Systemic steroids are not recommended for LBP with or without sciatica because they are not more effective than placebo.
- Gabapentin is associated with small, short-term benefits in patients with radiculopathy.
- There is insufficient evidence to recommend for or against antiepileptic drugs with back pain with or without radiculopathy.

Injections

Epidural steroid injections appear to provide potential small short-term relief in patients with sub-acute or chronic leg-dominant radicular syndromes resulting from disk herniation or spinal stenosis.² Epidural steroid injections do not confer long-term pain or function benefit and do not mitigate progression to surgery.² They are not recommended for nonspecific ALBP or CLBP.² There is no clear benefit over sham for CLBP.

The 2009 National Institute for Health and Care Excellence Guidelines recommend avoiding injections that include therapeutic substances for nonspecific low back pain due to lack of evidence of effectiveness.³¹

Surgery

The United States has the highest rates of spine surgery in the world despite incidence and prevalence rates similar to other countries.² More than 50% of patients undergoing surgery do not report excellent or good outcomes.² Spinal fusion is an option for non-radicular CLBP with degenerative changes when a patient has failed a one-year trial of conservative care.² Discectomy and microdiscectomy are options for significant radicular pain from disk herniation. These surgeries confer moderate short-term benefits that diminish over one to two years.² More recent studies have shown the benefit of Spinal Cord Stimulation therapy to treat chronic neuropathic low back pain. The overall effectiveness is variable, though some studies report a response rate of 80% of patient reporting adequate pain relief up to three years after initiation of SCS therapy.⁵²

Education/Communication

A 2008 systematic review noted the following⁵³:

- Eight RCTs (three studies were of high quality) found conflicting evidence for back schools compared with waiting list, placebo, usual care, and exercise.
- Twelve trials evaluated brief education and found strong evidence on sick leave and short-term disability compared to usual care.
- Five trials (two of high quality) found conflicting or limited evidence for the use of a back book or internet discussions compared with waiting list, no intervention, massage, yoga, or exercise.
- Three high-quality studies evaluated fear avoidance training and found moderate evidence that there is no difference between fear avoidance training (such as graded activity programs) and spinal fusion.

Clinical Practice Guidelines Issued by the American College of Physicians/American Pain Society in 2007³

- For patients who do not improve with self-care, medication, and education, consider the addition of nonpharmacologic therapy with proven benefits.
- For acute LBP, consider spinal manipulation.
- For chronic or subacute LBP, consider intensive interdisciplinary rehab, exercise therapy, acupuncture, massage therapy, spinal manipulation, yoga, CBT, or progressive relaxation. This is classed as a weak recommendation, with moderate-quality evidence.

Complementary Approaches

Spinal Manipulation

Various forms of spinal manipulation have been used for more than 2,000 years. Many different health professionals use spinal manual therapy (SMT), including osteopaths, chiropractors, and allopaths trained in manipulation.⁵⁴ SMT involves the use of high-impact-velocity impulse or thrust at the synovial joint at or near the end of the physiologic range of motion. The clinician controls the velocity, magnitude, and direction of the impulse.⁵⁴

Multiple theories exist regarding the mechanism behind SMT, including the following:

Mechanical

Manipulation of the spinal lesion relieves mechanical stress at the site. This affects the inflow of information to the central nervous system leading to changes in sympathetic and parasympathetic tone.⁵⁴

Neurophysiologic⁵⁵

SMT is also thought to modulate the pain gate mechanism, leading to inhibition of the dorsal horn transmission of nociceptive input. It may lead to activation of descending pain mechanisms via periaqueductal grey matter stimulation, as well as release of neurotransmitters: b-endorphins, substance P, and others.

All major international guidelines recommend spinal manipulations as a treatment option for ALBP and CLBP (NICE, ACP, APS, European Guidelines, The Italian Clinical Guidelines, Belgian Healthcare Knowledge Centre). Clinical practice guidelines recommend manipulation when patients have failed to improve with usual care or according to patient preference.² The 2009 NICE guidelines recommend offering a course of manual therapy, including spinal manipulation, comprising up to a maximum of nine sessions over a period of 12 weeks.³¹

Patients Most Likely to Respond to Manipulation are People²:

- Whose pain duration has been less than 16 days
- With extremity symptoms not distal to the knee
- With low fear avoidance
- With one or more palpable *hypomobile* lumbar segments
- Whose hips have an internal rotation range of motion of more than 35 degrees

Evidence for Spinal Manipulation

This particular area has been fairly intensively researched. The Agency for Healthcare Research and Quality (AHRQ) in the U.S. Department of Health and Human Services reviewed 265 RCTs and 5 non-RCTs through 2010 using Medline, Cochrane, CINAHL, and EMBASE by AHRQ. They concluded the following⁵⁶:

- Spinal manipulation was significantly more effective than placebo, or equivalent to pain medication, for reducing the intensity of LBP immediately or short-term (low-quality evidence).⁵⁶
- SMT was the same as placebo when comparing disability, flexibility, mobility, and pain medication use.⁵⁶
- SMT was better than no treatment in post treatment pain.⁵⁶
- SMT was better than acupuncture in improving pain and function in chronic nonspecific low back pain (low-quality evidence).⁵⁶
- Results from studies comparing manipulation to massage, medication, or physiotherapy (massage, analgesic currents, and diathermy) were inconsistent, either in favor of manipulation or indicating no significant difference between the two (low-quality evidence).⁵⁶
- A greater number of manipulation treatments alone or combined with PT decreased pain and improved disability.⁵⁶
 - Twelve systematic reviews of 69 trials published through 2006 using the Cochrane database found the following:⁵⁷
 - SMT was moderately superior to sham manipulation and therapies thought to be ineffective and harmful.⁵⁷
 - There was no difference between manipulation and general care or analgesic, PT, and back school.⁵⁷
 - The risk of adverse event was estimated at less than 1 per 1 million patient visits.⁵⁷
- Evidence is insufficient to conclude that benefits of manipulation vary according to profession or the presence or absence of radiating pain.³
- One RCT found SMT better than medical care (exercise, bed rest, analgesics) at improving disability, but not pain, in adults over age 55. The type of manipulation (high velocity low amplitude or low velocity variable amplitude) did not change the outcomes.¹⁵

- Two RCTs found improved pain and disability when comparing SMT alone to SMT with exercise and analgesics.¹⁵
- A 2017 JAMA review of 15 RCTs involving 1,711 patients with acute low back pain concluded that there was moderate-quality evidence that spinal manipulation was associated with improvements in pain and function.⁵⁸
- A 2018 Clinical Practice Guideline from the American College of Physicians suggests the following regarding spinal manipulation:
 - For acute/subacute low back pain there is low-quality evidence that spinal manipulation is effective.
 - For chronic low back pain, it is suggested that clinicians and patients should consider starting with nonpharmacologic therapy, though spinal manipulation has low-quality evidence.¹⁸

It is challenging to sort through the evidence related to SMT. One reason is a multitude of professionals use SMT (chiropractors, osteopaths, physiotherapists). Each group (sometimes even each practitioner) uses different techniques and different terminology. Many, but not all, studies include mobilization techniques (see below) as a form of SMT. Furthermore, blinding is challenging, and treatment duration and frequency of treatments vary considerably.

Mobilization

In contrast to SMT, mobilization is low-grade velocity and passive movement that remains within the patient's range of motion and control. It can be thought of as including all "nonthrust" manual therapies. Examples include muscle energy, myofascial release, strain/counterstrain, and cranial sacral therapy.⁵⁴

Following are some research highlights:^{15,54,59}

- Mobilization was superior to no treatment in reducing pain or improving range of motion. Disability scores were inconsistent (grade of evidence: low).
- Mobilization improved pain intensity while showing inconsistent results regarding disability in acute and chronic LBP compared with no treatment (grade of evidence: low).
- Conclusions are inconsistent regarding pain reduction for mobilization therapies compared to placebo.
- Mobilization was better than PT at reducing pain and disability.
- Mobilization was slightly better than massage for post-treatment pain intensity.
- There are no studies comparing mobilization with pain medication.

A 2019 systematic review of 14 studies showed that spinal mobilization is in fact effective in the short-term for improving lower back-related pain, function, and range of motion. As many of the reviewed studies compared spinal manipulation with other active control groups, the authors concluded that spinal manipulation for LBP is as effective as tai chi, spinal manipulation and standard exercises.⁶⁰

EASY Mnemonic for Manipulation and Mobilization

Effects

The evidence for spinal manipulation for low back pain is moderate in quality but suggests that it is beneficial.

Access

The cost of manipulation varies, but in most cases, it is covered by insurance.

Safety

The risk of harm from spinal manipulation is low.

You

Spinal manipulation may not always match the personal opinions, beliefs, and culture of the patient. It is important to keep this in mind when considering it as a treatment option.

Acupuncture

Acupuncture was developed as a part of traditional Chinese medicine in the first few centuries BCE. It has been practiced in Western countries for several hundred years. The first published American medical accounts of acupuncture for pain management were in the 1970s. In recent decades, different schools and forms of acupuncture have developed, but they all abide by the same basic theory.

Technique⁷

Modern needles are constructed of stainless steel. Packaging of needles is required to meet Food and Drug Administration (FDA) standards. Modern applications of acupuncture include: electro-acupuncture (introduces a small electric current), laser acupuncture (applying red or infrared light), injection acupuncture (in which herbal tinctures are injected), and magnetic acupuncture. Needling technique involves manipulation of the needle until the patient feels a characteristic sensation of soreness, heaviness, and/or tingling, which indicates that the body's qi has been activated. For patients with chronic pain, it is particularly important to prepare them for this aspect of therapy. Dry needling is a variation, which uses needles to treat myofascial pain. Needles are inserted into trigger points and removed once the trigger point is activated.

Research on Mechanism of Action

There are several theories and research findings that suggest how acupuncture might work. There fall into three categories⁷:

Neurophysiologic. Acupoint activation sensitizes cutaneous nociceptors through dorsal horn reflexes originating from an afferent signal in a joint or organ. This leads to release of substance P and calcitonin gene-related peptide, causing a cascade of events including degranulation of mast cells, release of histamine, vasodilation and swelling, and release of bradykinin from endothelium. Acupuncture is thought to cause inhibition at the dorsal horn by activating descending inhibitory pathways and stimulating the release of opioids and serotonin.⁶¹

Neuromodulatory. Numerous studies have documented changes in brain activity on PET and fMRI scans after stimulation of various acupoints. One experiment by Wu and colleagues compared fMRI changes in brain activation of electroacupuncture, mock acupuncture, minimal acupuncture, and sham acupuncture.⁶² The effects of placebo, expectation, and true acupuncture showed a similar pattern of activation of the hypothalamus, primary sensory motor cortex, and anterior cingulate cortex.

Fascial theories. Some acupuncturists treat ah shi points, which are local sites of soreness or pressure representing active acupoints. These areas are theorized to represent areas within the fascia that have been sensitized. In 1977, Melzack reported a 77% correspondence between locations of acupoints and myofascial trigger points (localized tender point within a tight band of muscle).⁶³ These points have also been found to correlate with Chapman's points in osteopathic medicine. Other research has continued to suggest the correlation of connective tissue structures, such as collagenous bands, with acupuncture meridian location/function.⁶⁴

Evidence for Acupuncture for Back Pain

The Agency for Healthcare Research and Quality (AHRQ) through the U.S. Department of Health and Human Services reviewed 265 RCTs and 5 non-RCTs through 2010 using Medline, Cochrane, CINAHL, and EMBASE by AHRQ. Studies were of moderate and low quality. They concluded the following⁵⁶:

- Acupuncture for nonspecific LBP was associated with significantly lower pain intensity than placebo but only immediately post-treatment (moderately good evidence).
- Acupuncture was not different than placebo in post-treatment disability, pain medication intake, or global improvement (moderately good evidence).
- Acupuncture was superior to no treatment in improving pain intensity, disability, functioning, well-being (moderately good evidence), and range of mobility (low-quality evidence) immediately after the treatment.
- In general trials, comparing sham acupuncture produced equivocal results.
- Results were mixed when comparing acupuncture to usual treatments such as pain medication (low-to-moderate quality evidence).
- Immediate pain and disability were better compared to PT (low-quality evidence).
- There was no difference in health care utilization compared to massage. (low-quality evidence)
- Acupuncture was more cost effective than usual care or no treatment.

Fifty-one RCTs included in three systematic reviews were reviewed by an expert panel convened by the American Pain Society and American College of Physicians. Quality of studies were rated 7-8/10. All had methodological shortcomings.⁵⁷ They concluded the following:

- Evidence for acupuncture versus sham is inconclusive.
- Acupuncture is moderately more effective than no treatment for short-term (less than six weeks) pain relief and functional improvement.
- Acupuncture was moderately superior for long term (greater than six weeks) pain relief compared to sham transcutaneous electrical nerve stimulation (TENS) and compared to no treatment.

- One higher quality trial found no difference in pain one year after acupuncture compared with a self-care education book. However, another found acupuncture superior to usual care and use of medications.
- Efficacy was equivalent to massage, analgesic medications and TENs. In two trials it was found to be inferior to spinal manipulation for short-term pain relief (low-quality rating).
- Acupuncture when combined with other interventions significantly improved function through 12 months (four high-quality trials).

An updated 2017 review by the American College of Physicians further strengthened evidence that acupuncture is moderately effective for low back pain.⁶⁵ Of note, acupuncture is also recommended by the National Institutes of Health and the U.S. Agency for Healthcare Research and Quality for chronic low back pain. It is also among the primary treatments recommended for chronic low back pain by the Global Spine Care Initiative.⁶⁶

Guidelines

The 2009 NICE Guidelines suggest offering people with back pain a course of acupuncture that consists of up to 10 sessions over a period of up to 12 weeks.³¹ Clinical practice guidelines issued in 2007 by the American Pain Society and the American College of Physicians recommended that physicians consider acupuncture when patients with chronic low back pain do not respond to conventional treatment.³

Safety of Acupuncture

Adverse events are rare. Common adverse events include pain at the needling site, mild inflammatory reaction, bruising, localized bleeding, fainting, or light-headedness. Serious adverse events including pneumothorax, infection, asthma exacerbation with angina and hypertension, and acute hypertensive crisis occurred in 0.001 to 0.002% of encounters.⁵⁶ A 2007 trial involving 454,920 patients treated with acupuncture for headache, low back pain, and/or osteoarthritis showed that minor adverse events were reported in 7.9% of patients, and 0.003% (13 patients) experienced severe adverse events. Minor adverse events included needling pain, hematoma, and bleeding. Serious adverse events included pneumothorax, acute hyper- or hypotensive crisis, erysipelas, asthma attack and aggravation of suicidal thoughts.⁶⁷

EASY Mnemonic

Overall, it would seem that acupuncture is a safe treatment option with few side effects. It is likely better than no treatment and should be considered as an adjunct to conventional care. It is comparable to many other conventional and complementary modalities. It is unclear how true acupuncture compares to sham acupuncture.

EASY Mnemonic and Acupuncture

Effects

The evidence for acupuncture for LBP is moderate in quality but suggests that it is beneficial.

Access

The cost of acupuncture varies. In some cases, it is covered by insurance. If not covered, a typical session ranges from \$50 to \$300, and typically multiple sessions are required.

Safety

The risk of harm from acupuncture is low.

You

Acupuncture may not always match the personal opinions, beliefs, and culture of the patient. Or, it may match better than the use of pain medications or injections. It is important to keep this in mind when considering it as a treatment option.

Massage

Massage has been used for thousands of years. In the United States, interest in it began to increase during World War I and then declined in the 1940s and 1950s with the availability of pharmaceuticals and technology. According to findings of the 2007 National Health Interview Survey, 8.3% of Americans had experienced some form of massage in the past year. This was up from 5% in the 2002 survey.⁵ One in five visits to massage therapists is for back pain.¹⁵

There are many forms of massage, including Western, Eastern, and hybrid forms. Swedish massage is the most common type in the United States. Therapists use long slow strokes, kneading, and circular movements on superficial layers of muscle. Other common types of massage include aromatherapy massage, hot stone massage, deep tissue massage, Thai massage, and trigger point massage. Some common licenses or certifications for massage therapists include licensed massage therapist (LMT), licensed massage practitioner (LMP), certified massage therapist (CMT), national certification for therapeutic massage and bodywork (NCTMB), and national certification for therapeutic massage (NCTM).

Massage is thought to work through many mechanisms. The gate control theory suggests that massage blocks pain signals to the brain by substituting one sensation for another. Touch signals travel at 35-75 miles per second; pain travels 0.5-2 miles per second. Endorphins and serotonin are released, and there are beneficial structural/mechanical changes as well.

Evidence

Research for massage can be broken down based on findings related to acute and subacute pain and chronic pain.⁵⁴

Nonspecific Acute/Subacute Pain.⁵⁴ For pain of shorter duration, massage:

- Is superior to placebo or no treatment for reducing pain and disability
- Is better than PT at improving back pain or disability
- When combined with exercise, leads to greater pain reduction and improved disability relative to either massage or exercise alone

- Was equivalent to soft tissue manipulation and exercise in terms of how much it reduced immediate or short-term pain

Chronic Nonspecific Pain

In terms of chronic pain, massage:

- Did not differ from no treatment or placebo in immediate and short-term pain intensity or disability¹⁵
- Was more effective as acupressure than in the form of Swedish massage²
- Leads to improvement in pain and functioning similar to exercise²
- Combined with exercise, was better than exercise alone in reducing pain⁵⁴
- Led to better short-term improvement in pain as compared to mobilization, relaxation, PT, acupuncture, self-care education²
- Has not been compared directly to pain medications in clinical trials to date

A 2015 Cochrane review of massage for low back pain concluded that there was “low-” to “very low-” quality evidence. Short-term improvements in pain were noted in acute, sub-acute and chronic LBP. Short term functional improvements were noted in using massage to treat subacute and chronic LBP. The main reasons the rating was low is due to the high risk of bias and imprecision in the massage therapy literature.⁶⁸

Guidelines and Risks

Clinical practice guidelines issued in 2007 by the American Pain Society and the American College of Physicians recommended that physicians consider massage when patients with chronic low back pain do not respond to conventional treatment.³ Minor pain or discomfort is experienced in fewer than 15% of patients after massage.² Side effects may include temporary pain or discomfort, bruising, swelling, sensitivity or allergy to massage oils. Massage should not be done in any area where there have been blood clots, fractures, open or healing wounds, skin infections, areas of bone cancer, or recent surgery.

EASY Mnemonic and Massage Therapy

Effects

The evidence for massage for LBP is moderate to low in quality but suggests that it is beneficial.

Access

The cost of massage varies. In some cases it may be covered by insurance. The typical cost ranges from \$30 to \$150 per hour, and multiple sessions may be needed.

Safety

The risk of harm from massage is low.

You

Massage may not always match the personal opinions, beliefs, and culture of the patient. It is important to keep this in mind when considering it as a treatment option.

Supplements and Herbs

Note: Please refer to the [Passport to Whole Health](#), Chapter 15 on Dietary Supplements for more information about how to determine whether or not a specific supplement is appropriate for a given individual. Supplements are not regulated with the same degree of oversight as medications, and it is important that clinicians keep this in mind. Products vary greatly in terms of accuracy of labeling, presence of adulterants, and the legitimacy of claims made by the manufacturer.

Several supplements have been studied for LBP:

Glucosamine

Glucosamine is theorized to restore cartilage and have anti-inflammatory properties. A double blind RCT of 250 patients with CLBP and osteoarthritis (OA) of the lumbar spine did not show improvement in pain or disability compared to placebo after six months of supplementation with 1,500 mg oral glucosamine sulfate nor after one-year follow-up (six months post-treatment).⁶⁹ A 2013 systematic review of three randomized controlled trials (n=309) stated that there was insufficient data to suggest whether or not glucosamine influences symptoms or functional outcomes in people with chronic low back pain. The data that are present are also of low quality.⁷⁰

Willow BARK (*Salix species*)

Willow bark comes from a family of deciduous trees and shrubs commonly known as white willow or European willow (*Salix alba*) and purple willow (*Salix purpurea*).² Willow bark contains salicylates and is the precursor to aspirin. Therefore, it should be used with caution in people with aspirin allergy and avoided in patients on anticoagulants and antiplatelet drugs. Many countries in Europe have approved willow bark for treatment of pain and other inflammatory conditions.

Routes of administration include tea, capsule, or tincture. The recommended dose for low back pain is 240 mg per day.² This dose is considered probably safe when used for up to eight weeks according to Natural Standard Database.⁷¹ High doses can be associated with gastrointestinal effects, headaches, allergies, and renal irritation. It has been rated "Evidence Grade B" for low back pain. Willow bark has proved better than placebo for short-term improvements in acute exacerbation of chronic low back pain, according to a 2006 Cochrane review.⁷² A standardized dose of 240 mg once daily has been shown to reduce pain the same as a daily dose of rofecoxib (Vioxx) 12.5 mg.⁷²

Devil's claw (*Harpagophytum procumbens*)

Devil's claw is also known as grapple plant, wood spider, and harpago. Devil's claw acts as an anti-inflammatory and analgesic.² Recommended dosing is 2,400 mg, (50 gm of harpagoside per dose of an aqueous extract of *H procumbens*) divided three times daily via tablet or capsule.² Devil's claw is generally well tolerated with few recorded adverse effects.⁷³ It may increase stomach acid, decrease blood glucose, and decrease blood pressure.⁷² A 2006 Cochrane review found two high-quality trials that showed strong evidence for short-term improvements in pain compared to placebo.⁷² It is rated "Evidence Grade B" by Natural

Standard for low back pain.⁷³ A 2016 Cochrane review concluded that Devil's claw, in a standardized daily dose of 50-100 mg harpagoside may reduce pain more than placebo and a daily dose of 60 mg may reduce low back pain the same as a daily dose of rofecoxib (Vioxx) 12.5 mg.⁷²

Capsaicin (*Capsicum Frutescens*)

Capsaicin is widely available over the counter in remedies used to counteract shingles pain. It depletes substance P and has a small effect on short-term recovery when compared to placebo.¹⁵ A 2006 Cochrane review found two trials showing moderate evidence for reduced pain and function over placebo in the short-term for acute exacerbations of CLBP.⁷² Side effects can include burning, stinging, and erythema, which tend to diminish with ongoing use. Ten percent of patients discontinue treatment because of these effects.⁷⁴

Vitamin D

Vitamin D may support the body in downregulating proinflammatory cytokines and thus decrease inflammation and subsequently pain. While in preclinical trials this effect has been found to be true, clinical research has not yet found vitamin D supplementation to be directly effective in decreasing low back pain or improving function. A 2018 systematic review and meta-analysis of eight clinical trials concluded that vitamin D supplementation is not more effective than placebo in the treatment of low back pain. The challenge that this review identified was that the studies done on vitamin D treatment for low back pain were of poor methodological quality with small sample sizes.⁷⁵

Back to Linda

After reviewing Linda's PHI and discussing her health with her in more depth, her clinician helped her to create the following health plan.

Personal Health Plan

Note: This plan is more elaborate, as might be discussed during a longer visit or a consultation. Health plans evolve over time, and they may be just one specific goal. People can work with their team members to keep updating the plan, and with each success, new goals can be set in new areas.

Name: Linda

Date: xx/xx/xxxx

Meaning, Aspiration, Purpose (MAP):

I hope to reduce my daily pain level and to become more functional in my daily life and work life.

My Goals:

- Decrease pain level and improve function while decreasing or eliminating medication use.

Strengths (what's going right already)/Challenges:

- Is willing and motivated to explore nontraditional treatment options for chronic pain.

My Plan for Skill Building and Support

Mindful Awareness:

- Begin with experiencing a mindfulness practice at home using CDs or online resources. Also explore [MBSR teachers and programs](#) in your area.

Areas of Self-Care:

- Physical Activity
 - Initiate warm water pool therapy. Couple this with walking and strive to exercise for at least 30 minutes, five times per week.
 - Incorporate acupuncture, massage, or osteopathic manipulative therapy (OMT) into the routine. Start with one modality and see response.
- Surroundings
 - Declutter the bedroom and transform it into a peaceful and private place for rest and relaxation
- Personal Development
 - Dedicate at least one hour per week to alone time for painting. Exchange TV time for reading. Consider art therapy.
- Nutrition
 - Keep a food, drink, and mood diary and note whether there is a correlation between pain and diet. Focus on cooking at home with plenty of fruits and vegetables. Follow recommendations from anti-inflammatory diet.
- Spirit and Soul
 - Reconnect with your church and plan to attend service at least twice per month.

Professional Care: Conventional and Complementary

- Prevention/Screening
 - Up-to-date.
- Treatment (e.g., conventional and complementary approaches, medications, and supplements)
 - Medications/Supplements
 - Initiate medication taper in the next 4-8 weeks
 - OMT. Then consider massage, acupuncture.
- Skill building and education
 - Nutrition
 - Relaxation and breathing techniques

Referrals/Consults

- Counseling
- Warm water therapist
- MBSR program
- Art therapist
- Integrative Health coach

Community

Resources

My Support Team

- Principal Professions
 - Primary care clinician
 - Counselor
 - Integrative Health coach
 - School staff
- Personal
 - Children
 - Co-Workers
 - Church

Next Steps

- Telephone visit with PCP in one week to discuss progress
- Schedule Integrative Health Coaching sessions
- Enroll in MBSR program
- Initiate warm-water therapy and art therapy
- Schedule appointment with counselor
- Schedule with either acupuncturist, massage therapist, or osteopathic physician

Follow-Up with Linda

Eight weeks have gone by, and Linda has begun to make major life changes and has noted significant improvement in her pain and well-being. She has started doing warm-water therapy and is walking regularly. She is able to do both without flares in her pain. She has decreased her caffeine intake to one daily and is having better success falling and staying asleep. She now plans her grocery purchases around the meals she will be cooking that week. She only eats out once weekly and has incorporated more fruits and vegetables into her diet. Linda redecorated her room and has started reading instead of watching television at night. She is hoping to start painting again soon. Linda has started to see a therapist and is considering family therapy. Since major sources of stress for her are a 15-year-old son with severe autism and a 13-year-old who is having behavioral issues at school, Linda has met with school staff (her sons' teachers, a social worker, and a counselor) to help determine why her 13-year-old has started to have behavioral issues and to investigate options for more respite care and a parental support group related to the autism. She has reconnected with her church and has met a couple of friends with whom she hopes to stay in contact. Linda opted not to do the MBSR program due to cost but has begun to utilize CDs at home. She has started seeing an osteopathic physician for osteopathic manipulative therapy. Linda has begun to taper off her medication. She is now taking half the dose of the opioid medication and is planning to decrease her muscle relaxant. Overall, Linda notes substantial improvement in her pain and feels healthier and more functional in her daily life.

Tools

- [“Mindfulness Meditation for Chronic Low Back Pain”](#)

Author(s)

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