



Midwest Business Group on Health

Chronic Low Back Pain

Why is Chronic Low Back Pain (CLBP) Important to Employers?

Treatments for CLBP are one of the fastest growing and evolving sectors of health care today. The race to support people with this debilitating condition is driven not only by advancements in science and the deeper understanding of human physiology, but also the pursuit to curb, if not eliminate, the use of opioids, where CLBP is the leading cause of their use.

Health care professionals are working diligently to keep up with evolving technologies, new techniques and related literature that support their adoption.

However, many carriers and/or TPAs have been slow to adopt, approve and cover newer treatments for CLBP, with some opting to only reimburse for traditional treatments such as lumbar spine fusion surgery (one of the largest cost drivers and often not supported in clinical guidelines). As one of the top three most costly conditions in the U.S., low back pain is the condition with the highest variance of treatment options. More options mean more potential for [waste](#).

EMPLOYERS:

If you have a CLBP problem, you most likely have a productivity problem!

This Action Brief provides an overview of the various approaches and available treatments for CLBP along with recommended action steps an employer should consider to ensure members have access to the most effective treatments available today.

Look for this icon for employer quotes on CLBP!



"It goes back to if we don't know how to really treat CLBP, we're not getting at a resolution – we're just putting band aid approaches in place to help relieve some pain."



Chronic Low Back Pain & Impacts to Productivity

CLBP is [defined](#) as persisting for at least three months and resulting in pain on at least half the days in the past six months. It can lead to permanent structural changes in the spine, reducing the likelihood of recovery and further compromising health and work outcomes. CLBP [prevalence peaks](#) between the ages of 35 and 55 – prime working years. It is the 2nd most common pain condition that [impacts productivity](#) at work behind headaches, causing 75% of lost productive time. This can be experienced as either diminished work capacity, paid absenteeism or permanent exit from the workforce. For workers that leave their jobs due to CLBP, the pathway to return is often unsuccessful. The psychological and sociological problems commonly associated with CLBP contribute to this.

Use of Opioids for CLBP

CLBP is one of the most common reasons patients are treated with opioids. There is [growing evidence](#) they are not superior to non-opioid treatment strategies for low back pain. Approximately 20% of individuals receiving long-term opioid therapy develop an opioid use disorder. Given the



prevalence of CLBP in the U.S., identifying effective non-opioid alternatives for chronic low back pain is a top health care priority.



"It seems like we're paying a lot of money for CLBP and not seeing significant results. Many employees are taking time off and it's one of our highest cost claims. In a manufacturing environment like ours, the impact is big and we're looking for alternatives."

Economic Impact to Employers

- In 2016, low back and neck pain had the highest amount of [health care spending](#) with an estimated \$134.5 billion spent annually, of which 57% was paid by private insurance. 67.9% of the population that attributed to this spend was between the age of 20 and 64.
- In the United States, [indirect costs](#), including disability benefits and days of work missed, are estimated to be as high as \$624.8 billion for those impacted by CLBP.
- Low back pain is the [leading cause](#) of years lived with disability worldwide and often a determinant for chronic opioid use.
- [Fewer than half](#) of those disabled for longer than 6 months return to work and after two years, the return-to-work rate is close to zero.

The Cycle of Chronic Low Back Pain

People who experience acute back pain (typically caused by a sudden injury to the muscles and ligaments supporting the back) can get into a vicious cycle that they can't get out of, leading to years of chronic low back pain. There are different types of back pain:

- Acute back pain is often defined as lasting less than 4 weeks
- Subacute back pain lasts 4 to 12 weeks
- Chronic back pain lasts more than 12 weeks

For CLBP sufferers, approximately 1/3 have a clear identifiable cause typically related to anatomy that affects a nerve which may be surgically treated. The other 2/3 of patients have a less identifiable cause of back pain and are not typically candidates for surgery.

Diagnostic Testing

If there is reason to suspect that a specific condition is causing back pain, the doctor may order one or more [tests](#):

- X-ray – Images show the alignment of bones and whether arthritis or broken bones are present. Images alone won't show problems with the spinal cord, muscles, nerves or disks.
- MRI or CT scans – Scans generate images that can reveal herniated disks or problems with bones, muscles, tissue, tendons, nerves, ligaments and blood vessels.
- Blood tests – Tests can help determine whether there is an infection or other condition causing pain.
- Bone scan – In rare cases, a doctor may use a bone scan to look for bone tumors or compression fractures caused by osteoporosis.
- Nerve studies – Electromyography (EMG) measures the electrical impulses produced by the nerves and the muscle response. This test can confirm nerve compression caused by herniated disks or narrowing of the spinal canal (spinal stenosis).

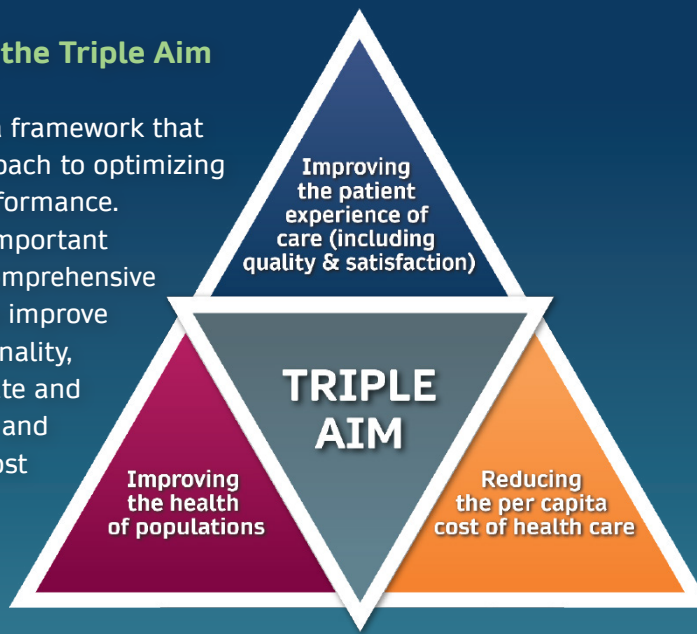
Treatment Options

CLBP can significantly impact a person's quality of life and function at home and at work. Available treatment remains a challenge as there is significant variability in how a patient responds based on the injury and whether the root cause of pain can be identified. When deployed appropriately, some CLBP interventions can significantly improve long-term outcomes and reduce employer health care costs. A multidisciplinary approach is critical to ensure the right treatment is being applied to the clinical condition presented. Given the vast array of treatment options that may result in wasteful spending, educating patients affected by CLBP is another mechanism to drive better overall value.



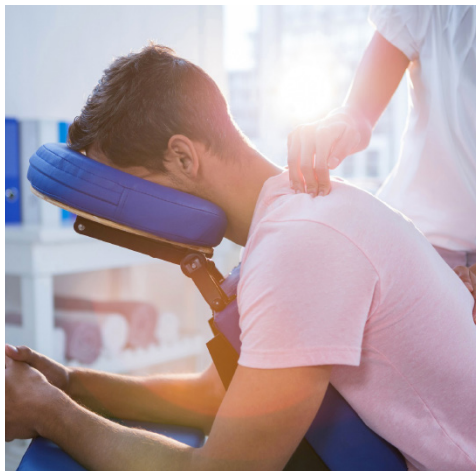
Understanding the Triple Aim

The **Triple Aim** is a framework that describes an approach to optimizing health system performance. This approach is important for effective and comprehensive CLBP treatment to improve health and functionality, lessen inappropriate and unnecessary care, and reduce the total cost of care.



Low Back Pain Caused by Spinal Degeneration and Injury

Low back pain can have a range of [causes](#). Some back pain is associated with general aging and degeneration over time, and in younger patients, is typically associated with an injury. Treatment for low back pain will often be guided by a clinician's diagnosis of what is generating pain. If the diagnosis is non-specific and the root cause cannot be identified, starting with a conservative treatment approach is common. After a course of conservative treatment, the clinician may choose to move to an interventional approach based on the patient's progress (or lack of progress).



Conservative Treatment (first line)

- [Pharmacotherapy & Use of Opioids](#) – While medications are an important part of CLBP management, there is uncertainty as to the optimal use of commonly prescribed medications such as opioids, antidepressants and NSAIDs. Based on the significant rate of side effects with opioids and the lack of convincing superiority over NSAIDs, opioids are not recommended as a treatment for chronic low back pain. In addition, these medications have a high potential for addiction.
- [Physical Therapy](#) – In general, the goals of physical therapy are to decrease pain, increase function and provide education on a maintenance program to prevent further recurrences. After an episode of low back pain has lasted between two and six weeks or if there are frequent recurrences of low back pain, [physical therapy is often recommended](#). Some spine specialists consider physical therapy sooner, particularly if pain is severe. A physical therapy program for back pain usually has two components: 1) Passive physical therapy to help reduce the

patient's pain to a more manageable level;
2) Active exercises.

- [Acupuncture/Massage](#) – Acupuncture is the selection and manipulation of specific acupuncture points by a variety of needling and non-needling techniques. Massage is defined as soft-tissue manipulation using the hands or a mechanical device.
- [Multimodal Treatment Programs \(Clinical\) & Cognitive Behavioral Therapy \(Psychological\) Interventions](#) – Multidisciplinary clinical treatments and behavioral interventions can be effective, yet it is not clear which features of these programs are responsible for patient improvement.

Conservative Treatment Options Pros

- Conservative treatment is relatively low risk with limited to no threat of long-term consequences or irreversible conditions.
- Cost of treatment can be reasonably low, and if effective, a good value for the patient and employer.
- Usually easy for patients to access and not significantly disruptive to daily routine.

Conservative Treatment Option Cons

- For certain injuries, conservative treatment is not effective in reducing pain or lasting in effect.
- Some patients are not able to perform physical therapy or specific exercises required to rehabilitate a targeted area.
- Pharmacotherapy can incorporate the use of opioids and introduces the risk of addiction and other potentially dangerous side effects.

“Traditional therapies like surgeries and drug interventions are very common with our population. It is one of the largest reasons for time off work; we're struggling with it.”





Patients who have suffered CLBP for more than 6 months will often be advised to exhaust conservative treatment options before more invasive treatment strategies are recommended. Health plans often restrict access to interventional and surgical treatments through prior authorization procedures.

Interventional Treatment (minimally invasive)

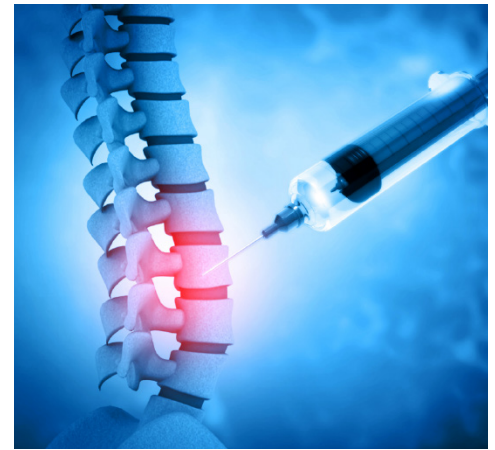
Whether the cause of pain has been identified or not, several interventional techniques exist. Patients may only get temporary relief and will require continued intervention if the cause is not addressed. Examples include:

- [Nerve Blocks](#) – Anesthetic and/or anti-inflammatory injection targeted to a certain nerve or group of nerves to reduce pain by blocking signals between nerve cells and the brain. Improvements in pain have been observed at 3, 6 and 12 months; may be effective in treating CLBP or identifying the cause of pain.
- [Epidural Steroid Injections](#) – Steroid medication injected directly into the epidural space which may offer [temporary relief for acute episodes](#) and often used after medications and physical therapy. May not always be effective and relief is typically temporary. Often leads to guiding patients to a more comprehensive care plan.
- [Radiofrequency Ablation](#) (Neurotomy) – Needles inserted into the skin deliver radio waves to targeted nerves and temporarily destroys them, thus turning off pain signals. Although the procedure is short and minimally invasive, there is a possible recurrence of symptoms, potential infection and/or damage to blood vessels and nerves.

- [Restorative Neurostimulation](#) – Implantable device attached to thin wires placed in the nerves outside of the spinal column to stimulate the stabilizing muscles of the back to restore their function and resolve pain. [Clinical data](#) shows over time this treatment will restore function of these muscles and reduce or even resolve pain, compared to baseline.
- [Spinal Cord Stimulation](#) (SCS) – Implantable device surgically placed under the skin that sends mild electric currents to the spinal column and works by masking pain signals before they reach the brain. Spinal cord stimulation can improve overall quality of life and sleep and reduce the need for pain medication. It is typically used along with other pain management treatments.



“Our members don’t know where to get care and how to treat their low back pain. They go through several different avenues – physical therapy, chiropractic and eventually end up doing surgery. People don’t know where to go to find answers.”



Interventional Treatment Options Pros

- Effective reduction in pain when treatment is properly selected.
- Several treatment options available based on clinical condition; clinician can more effectively match treatment to condition.
- Newer treatments are available focusing on rehabilitative mechanisms to alleviate the underlying cause of pain (e.g., spinal instability due to degeneration of the multifidus muscle).

Interventional Treatment Options Cons

- Some treatments may be more intensive and are higher risk compared to conservative options.
- Nerve blocks, neurotomy and spinal cord stimulation are palliative strategies and do not resolve the underlying issue causing pain and are usually associated with temporary relief.
- Some non-surgical treatments will require repeat procedures given the temporary nature of pain relief; this can lend itself to wasteful spending of health care dollars.
- Some treatment strategies will require an implanted device which certain patients may oppose.



"We make an expert second opinion/treatment decision support service available to all members and covered dependents free of charge. This typically happens before the person undergoes a surgical procedure or treatment that may have been proposed by their doctor."



Surgical Treatment

The majority of CLBP patients have no indication for spine surgery. For patients with a clear identifiable cause of pain, surgical techniques exist to resolve the patient's pain.

[Surgical treatment](#) options include lumbar fusion, lumbar disc arthroplasty and dynamic stabilization. Lumbar fusion remains the most frequent spine surgery performed but questions still exist regarding its efficacy in comparison with conservative care or interventional pain management.

Patients who suffer from CLBP without an indication for surgery, and resort to lumbar fusion, incur [significant medical costs, use of narcotics](#) and rarely experience resolution of pain.

Surgical Treatment Options Pros

- If the cause of pain is identified, surgery is proven to be very effective when coupled with the correct diagnosis.
- In cases where pain is resolved, surgical correction can be durable and lasting in reducing and resolving pain.
- Many new technologies and techniques have evolved to improve safety and reliability of surgical procedures.

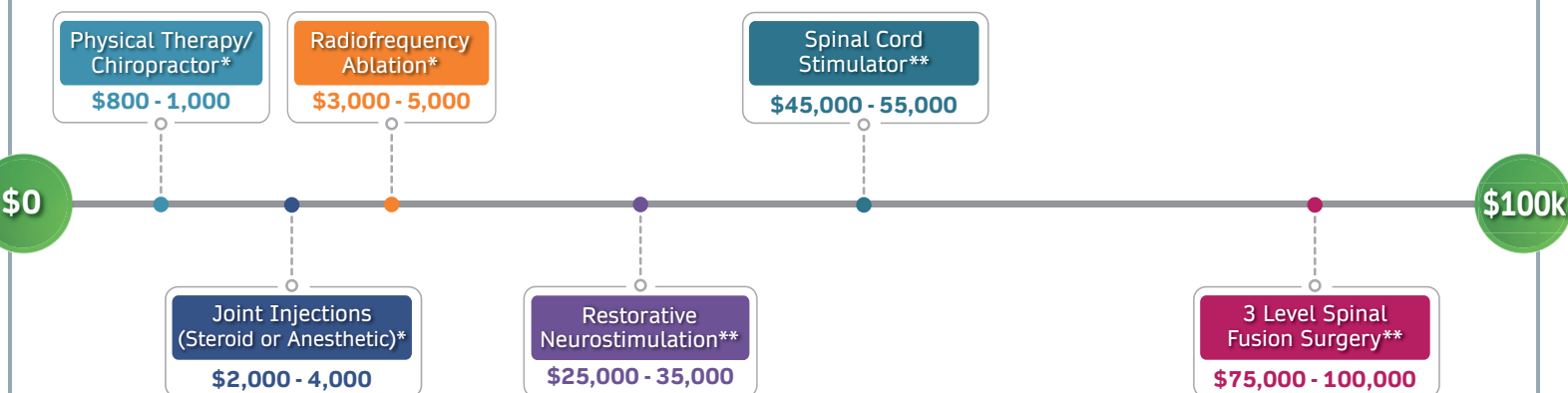


61% of patients who received a second opinion had initially been recommended a surgery that was unnecessary.

Surgical Treatment Options Cons

- Risk of surgical complications need to be considered; risk is typically proportionate with the complexity of the procedure.
- If the diagnosis is not accurate, surgical interventions may not prove effective in reducing pain or maintaining long lasting durability.
- Recovery time for some surgical procedures can be lengthy.
- Costs and potential complications associated with spine surgery are significantly higher than other interventional treatments for CLBP.
- [Inappropriate surgical intervention](#) is not uncommon and can lead to poor outcomes for patients who may not have a clear cause of the disease identified.

Estimated Cost Ranges for CLBP Treatments for Commercially Insured



* Annualized Costs

**Single Episode of Care

Employer Action Steps

There are a number of action steps an employer can take to proactively manage CLBP to improve outcomes and mitigate the total cost of care. These steps are especially important to better manage those who have exhausted conservative treatment options. Although surgical treatment may be indicated for a segment of the population, steering members to non-surgical options can ultimately lead to better outcomes at a lower cost.

Offer education to plan members on:

- ❑ Prevention, lifestyle management and proper ergonomics to support a healthy back.
- ❑ Best treatment options to guide decision-making during office and telehealth visits.
- ❑ Pros/cons and efficacy of conservative, interventional and surgical treatment options.



Educate health care partners (e.g., Carriers, TPAs, PBMs, Point Solution Vendors) to:

- ❑ Understand the prevalence, importance and impacts of CLBP along with available diagnostic tests and treatment options.
- ❑ Identify best-in-class treatments and technologies that go beyond the payer coverage policy.
- ❑ Direct members to facilities and network providers that offer a range of treatment options.

Offer a variety of treatment options for members including:

- ❑ Digital, home-based physical therapy
- ❑ Onsite physical therapy
- ❑ Centers of Excellence
- ❑ Second opinion service for surgical procedures

Offer benefit plan design and coverage strategies that:

- ❑ Create value-based designs with low or no copays for best practice treatments.
- ❑ Consider carving in benefits that may not be traditionally covered by your health benefits administrator.
- ❑ Consider novel arrangements with device manufacturers that are open to risk sharing and other payment strategies to improve value to members and the organization.
- ❑ Coordinate with your Workers Compensation benefit manager to provide best-in-class treatment for injured employees to expedite return to work.
- ❑ Evaluate program and participation goals, define quality standards and measure outcomes; review performance against these metrics on a regular basis.



"We have launched a digital MSK solution; over 2,000 members have enrolled with positive results. People are at their wits end and want to do something, so we provided an option. So far that option is working."

Prevention & Education Strategies

Promote movement:

Encourage workers to take active breaks. Promote standing and walking meetings. Any posture held for a long period is bad posture.

Expand your view of ergonomics:

Technology has made it easy for employees to work virtually anywhere. Provide guidelines on setting up a proper workstation no matter where work is being conducted.

Encourage early intervention:

Typically, chronic low back pain does not go away on its own. Encourage employees to seek appropriate treatment early.

Provide options & education:

It is important to share information and resources so employees can adopt healthy back behaviors. One option is to offer onsite physical therapy as employees often do not have time to leave the office, delaying treatments that could alleviate their symptoms.



About MBGH

MBGH is one of the nation's leading and largest non-profit employer coalitions. Members are represented by human resources and health benefit professionals for over 140 mid, large and jumbo self-insured public and private companies who provide health benefits for more than 4 million lives, with employer members spending over \$12 billion annual on health care. Since 1980, members have used their collective voice to serve as catalysts to improve the cost, quality and safety of health care benefits.

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