

# Chronic Pain and Addiction



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Chronic pain conditions impact the lives of tens of millions of people in the United States. For the many who struggle both with substance use problems and with a chronic pain condition, it is especially challenging to find healthy solutions that are effective in controlling their pain while they are recovering from their substance use problem.

Those who suffer from chronic pain present a special challenge to the addiction medicine multidisciplinary treatment team to provide effective treatment for both chronic pain and substance use problems at the same time.

“Chronic pain” refers to pain of at least three-months duration that has been resistant to trials of first-line treatment (such as over-the-counter medications).

Chronic pain can affect a specific part of the body, as in lower-back pain or headaches, or involve many regions at the same time, as with fibromyalgia or osteoarthritis. Chronic pain is not just a symptom of another disease, illness, or injury. Chronic pain becomes a disease and illness unto itself. If chronic pain co-occurs with a substance use disorder, it needs to be effectively managed to facilitate a successful recovery.



## The impact on the body



Chronic pain itself has a direct impact on the body's energy, ability to focus, attention, and concentration, and contributes to the loss of pleasure or motivation.

Additionally, the physical limitations that accompany chronic pain often cause frustration with the loss of ability to do things the sufferer wants or needs to do in their roles as parent or spouse, and a decrease in their social, occupational, leisure, and community activities.

When the pain lasts for months or even years, the chronic pain sufferer often develops generalized anxiety and worry—and perhaps even clinical depression—about the future:

- What's going to happen to me?
- Will I ever be able to work as I once did (or continue to maintain what I now do)?
- What if I can't care for and contribute to my family as I have in the past?
- Will I lose my independence? I don't want to just depend on others.
- What good am I to myself or the people I care about if I can't do the things I once did?

Emotional suffering actually amplifies physical pain. When that happens, the chronic pain sufferer can get trapped in a vicious cycle of physical pain and emotional suffering. When the suffering and impairments continue to worsen, medical professionals refer to this syndrome as "central nervous system burnout." Unfortunately, possible side effects of narcotic pain medications are the amplification of pain and intensification of the other symptoms of chronic pain syndrome, including clinical depression.

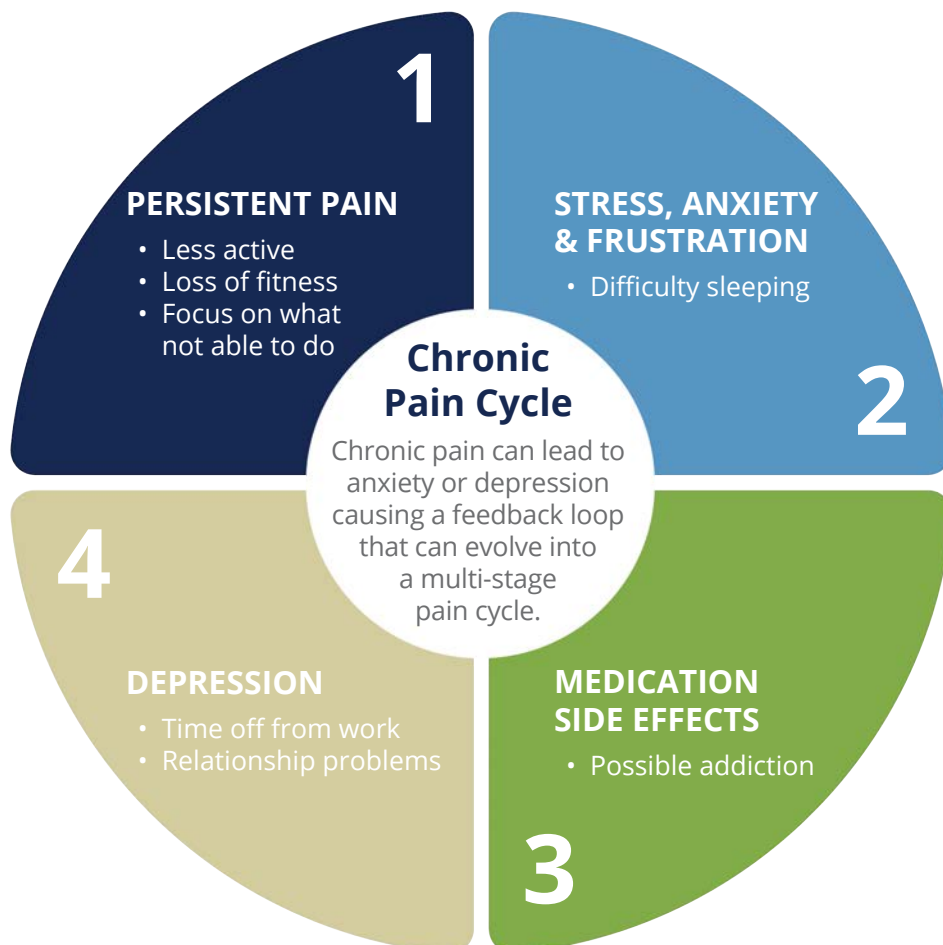
Chronic pain can also be a result of high-risk behavior based on poor judgments and decision-making influenced by addiction. Without effective treatment for both addiction and chronic pain, the cycle often continues to worsen. An effective treatment plan must be individualized, comprehensive, and multimodal. Behavioral impairments associated with narcotic pain medications and other potentially addictive substances may include serious physical injuries due to accidents and falls.

## Chronic pain can change your brain

The nerves that transmit pain to the brain have a direct impact on the limbic system, including the amygdala, which regulates fear, anxiety, and arousal. Another part of the limbic system directly affected by pain is the hippocampus, where memories are stored. These areas are involved in the perception and response to the pain. "How does today's pain compare to my prior experience? Is this pain life threatening or just a nuisance?"

Chronic stress and generalized anxiety often result in a constant state of emotional over-arousal and preparedness that causes ongoing muscle tension and spasm, which both maintains and amplifies chronic pain. Though they did not initially cause the pain, anxiety and stress can increase the perception of the intensity of chronic pain.

Without effective treatment for chronic anxiety and stress, those factors will continue to reduce the effectiveness of other treatments directed at the physical pain. When chronic pain is the result of traumatic physical injuries (e.g., fractured bones, ruptured tendons, impact injuries), the chronic pain sufferer often finds that exercise causes worsening of their pain, resulting in more fear and anxiety about moving forward with healthy increases in their physical activity.



Studies in scientific literature have shown that even the anticipation of pain can trigger a stress reaction in the brain. Persistent focus on the fear that physical activity will worsen pain results in avoidance of healthy physical activity, which is an essential component of recovering from chronic pain and impairments in functioning.

Stress pours gasoline on the fire of chronic pain. Even though stress is not the original cause of the pain (the “fire”), stress (the “gasoline”) makes the pain worse and more resistant to treatment interventions.

Often, a pattern of persistent focus on negative thoughts (e.g., feeling helpless, hopeless, and worthless) starts to occur with increasing frequency. This is known as “catastrophizing.” The individual tends to imagine and focus on negative expectations of the future regarding the severity of the pain and the severity of physical impairments.

Neuroscience shows that pain pathways terminate in areas of the brain responsible for anxiety and mood as well as sleep, energy, and irritability. All of those emotions are affected by pain and, of course, pain affects those emotions.

## The cycle of pain

When chronic pain is co-occurring with chronic anxiety or clinical depression, it is sometimes called “chronic pain syndrome.”

Each condition can make the other worse, leaving many chronic pain sufferers feeling helpless and hopeless about the possibility of ever being able to feel better or function better again. Having been through many disappointing treatment trials, they and their families are often understandably skeptical that an effective combination of treatments exists that can help them feel better and function better, both physically and emotionally.

When treated with long-term narcotic pain medication, some individuals begin to take the medications to feel better not just physically but also emotionally.



## Chronic pain impacts both the individual and the family

Chronic pain can be the result of a traumatic injury or chronic medical condition. Unfortunately, no one is completely immune from the possibility of an accident, injury, or illness, despite even the best efforts to practice a safe and healthy lifestyle.

The impact of a chronic pain condition is frustrating for the individual who suffers from it. Chronic pain causes decreased energy, decreased ability to focus on one’s usual activities, and decreased pleasure and motivation to perform the usual activities that one wants or needs to do.

In addition, the worsening of physical limitations that result from chronic physical pain may cause a decrease in the ability to do the activities they consider most important, which may be referred to as “role functioning.” Life roles that are important to an individual may include activities as a parent, spouse, and friend. The ability to help aging parents or others in the family, participation in leisure

activities, and an inability to engage in occupational tasks can all be diminished. Physical limitations can also curtail participation in religious and community activities.

Because performing activities in those life roles results in a sense of purpose and fulfillment, the physical limitations that disrupt the ability of the chronic pain sufferer to perform these activities inevitably causes added frustration, anxiety, worry, and sadness.

The individual often feels compelled to perform activities that worsen their physical pain in order to fulfill an important life role:

“Even though it makes me feel worse, I do [these activities] because I need to keep my job.”

“If doing what I need to do to be a good parent causes my physical pain to get worse, then I’m going to do what I need to do to be a good parent.”

The result of the combination of chronic physical pain and frustration with limitations in life roles often leads to overuse of habit-forming medications, clinical depression, anxiety disorders, and sleep disorders, all of which commonly occur in chronic pain sufferers.

But it doesn’t stop there. The lives of family, friends, and co-workers who care about the chronic pain sufferer are affected, too. It is upsetting for them to witness the suffering of the person they care about and may depend on. The experience can be similar to that of a parent feeling helpless as they watch their child suffer with an illness, unable to fix it or make it go away.

Family, friends, and co-workers are also impacted by the loss or change in their lives. These are due to the decreased ability of the chronic pain sufferer to participate in life roles. Family, friends, and co-workers are often called to take up the slack doing important activities and tasks, dealing with financial setbacks, and helping to care for the chronic pain sufferer. They often have their own fatigue, decreased ability to focus on usual activities, and decreased pleasure and motivation to perform the usual activities. In some cases, they too may suffer clinical depression, anxiety disorders, and sleep disorders from “caretaker burnout.”

Healthcare providers and their staff may also become frustrated with the limited benefits of the treatments they have to offer. No healthcare provider wants to see their patient suffer with inadequately relieved physical pain and emotional suffering on an ongoing basis, for months or years.







Long-term treatment with narcotic pain medication can sometimes exacerbate physical aches and pains, a condition known as “opiate-induced hyperalgesia.”

## LONG-TERM NARCOTIC PAIN MEDICATION TREATMENT:

### Do side effects outweigh benefits?

For the past 20 years, long-term prescription of narcotic pain medication (opiates) has been and continues to be a well-established treatment for those who suffer from chronic pain and associated impairments. As with any treatment, the goals include effective reduction of physical pain along with improvement in overall functioning.

For those individuals who experience sustained improvements in reduced pain and improvements in functioning, medication side effects may be minimal and the risk of other clinically significant medical harm may be considered manageable. In such situations, the patient, family, and prescriber are generally in agreement that the benefits far outweigh any apparent side effects and risks.

But the first goal of any medical treatment is safety: First, do no harm. Safety concerns for narcotic pain medications can be very serious, including a risk of overdose and death.

Narcotic medication side effects can include headaches, nausea, constipation, sleep disturbance, fatigue, impaired concentration, restlessness, irritability, anxiety, and depression. Side effects may also include worsening of impaired functioning at work and at home. Increased tensions in important relationships, decreased leisure activities, and social isolation are all possible.

For many individuals, extended treatment with narcotic pain medication results in quite limited overall long-term benefits in reduction of physical pain, along with little or no improvement in their ability to function in those life roles that are most important to them.

What’s more, long-term treatment with narcotic pain medication can sometimes exacerbate physical aches and pains, a condition known as “opiate-induced hyperalgesia.” At first glance, it doesn’t make sense that pain medication could actually make pain worse. But if the pain sufferer and the family notice that the levels of suffering and functioning are worse since the last narcotic pain medication dosage increase, the pain sufferer might actually feel better following a dosage reduction.

Even more devastating, narcotic pain medications may have profound effects on thoughts, emotions, judgment, decision-making, and behavior. These lead to significant adverse consequences for the individual suffering from chronic pain, as well as for those who care about and depend on them. Loved ones, friends, and coworkers may comment that the person’s personality has changed or that they’re “not themselves” anymore. The person may take more medication than prescribed, increase their consumption of other addictive substances, or increasingly engage in high-risk activities.

Side effects can also include physiologic dependence, a clinical term referring to the fact that suddenly stopping or drastically reducing the dose of the medication results in a predictable withdrawal syndrome, which is temporary but may be very uncomfortable.

Tolerance is a clinical term that means a particular dose of a potentially addictive medication (or other substance) no longer produces the benefits that it once did. A limited amount of tolerance almost always occurs in narcotic pain medication treatment.

Physiologic dependence and tolerance are two of the three components of a diagnosis of addiction. Having physiologic dependence or tolerance by itself does not mean that the person has the disease known as addiction.

Addiction—also called “substance use disorder”—may be properly diagnosed when the individual continues use of the medication despite this impairment in judgment and decision-making as well as the adverse consequences resulting from the actions resulting from those decisions. In this sense, addiction can be considered a potential side effect of narcotic pain medication (opiates).

For those individuals who rapidly develop a very high tolerance to narcotic pain medication treatment, the severe side effects can quickly begin to outweigh the benefits. These individuals may take more medication than prescribed and experience severe withdrawal when they run out prior to the scheduled refill date.

Some individuals have a higher risk of developing a substance use problem than others. Risk factors include being a cigarette smoker and having a genetic predisposition. The most reliable indicator for genetic predisposition is when an individual’s first-degree relative has a substance use problem. “First-degree relatives” include parents, siblings, and children.

Some prescribers utilize standardized screening tools, like the Opiate Risk Tool (ORT), a tool that assigns points to various risk factors for addiction to determine whether an individual has a low, medium, or high risk of developing a substance use disorder.

The American Society of Addiction Medicine defines addiction as a “primary, chronic, neuro-biologic disease whose development and manifestation is influenced by genetic, psychosocial, and environmental factors.”

### GOOD NEWS:

## Effective non-addictive treatments for co-occurring pain, stress, and addiction

The good news is that effective combinations of treatments are available from practitioners who specialize in treatment with non-addictive medications and non-medication techniques for chronic pain, stress, and addiction.

An effective treatment plan must be individualized, comprehensive, and multidisciplinary, addressing all relevant

The risk of developing a substance use disorder is higher in those who:

- have family members who have had a substance use problem,
- experienced severe physical or emotional trauma in the past,
- endured extreme emotional stress for extended periods of time, or
- rapidly develop a high tolerance to the medication after temporary initial benefits.



aspects of chronic pain, mood, anxiety, sleep, and addiction disorders. Elements of an individualized and comprehensive treatment plan for addiction and chronic pain include:

- effective non-addictive medications that work in the central nervous system
- healthy physical activity that “does no harm”
- learning healthier ways to cope with stress
- addiction recovery and relapse prevention

## CAREFUL ASSESSMENT

At Lakeview Health, the initial evaluation process is designed to help our medical, nursing, and clinical staff begin to understand:

- the nature and severity of all aspects of physical pain and physical limitations
- the nature and severity of all aspects of emotional suffering and impairments in functioning
- losses and changes in ability to do those activities that have been important to the individual
- current and past sources of stress, as well as physical and emotional trauma
- current and past medication regimens for all physical problems, mood, anxiety, and sleep
- current and past use of habit-forming medications, alcohol, and other substances
- impact of all symptoms and impairments on the individual’s ability to do important life activities

The medical, nursing, and clinical staff also gathers information about past medical, surgical, physical, psychiatric, psychological, and developmental histories.

The Lakeview Health treatment team also welcomes and encourages the individual to provide (or authorize our team to request) the most recent reports of outpatient visits, hospital admission and discharge summaries, and any other expert assessments, as well as prior lab, radiology, and cardiology test reports.



## SAMPLE QUESTIONS REGARDING PAIN

At Lakeview Health, the initial evaluation process is designed to help our medical, nursing, and clinical staff begin to understand:

- Where in your body are you having pain today and over the past week?
- Is your pain continuous or do you get some pain-free intervals?
- How does your pain condition:
  - impact those you care about most?
  - impact your ability to attend and function at work or school?
  - interfere with your ability to do things you want and need to do?
  - impact your sleep, energy, concentration, mood, motivation, and ability to enjoy your usual activities?
  - impact your ability to function as a parent or spouse and engage in social, occupational, and leisure activity?
  - affect your ability to participate in religious or community activities?

### BREAKING THE CYCLE:

## Successful treatment of chronic pain and substance use disorders

Addiction treatment professionals have always been presented with the challenge of substance use disorders co-occurring with chronic pain issues in a significant proportion of their patients. But only recently have more effective treatments been available. New approaches allow for more successful treatment of both the chronic pain and the substance use problem at the same time.

With more effective treatments, chronic pain sufferers routinely report that the severity of chronic pain is significantly less when they are no longer taking narcotic pain medication compared to the severity while taking narcotics daily.

The Lakeview Health treatment team formulates an individualized, multimodal treatment plan in three major areas:

- Healthy physical activity that does not worsen the pain condition
- Non-habit-forming medications that treat the joints, muscles, and the nerves that transmit the pain
- Stress management and lifestyle adjustment to facilitate increased functioning and relapse prevention

Assessments that allow us to plan for an individualized physical activity regimen are performed in our wellness center under the supervision of certified personal trainers and physical therapists.

Non-addictive medications for chronic pain, mood, anxiety, and sleep are selected and monitored carefully. At the same time, habit-forming medications are gradually and safely decreased. Other treatments are also available to minimize physical and emotional discomfort during the transition.

## Transition to a more effective treatment plan for medications

It is important to improve an individual's biological health prior to increasing their healthy physical activity. Usually, the first week of treatment includes reducing both physical pain and emotional suffering by improving the individual's overall health by:

- safely reducing habit-forming medications
- adding nutritional support for the central nervous system, muscles, and joints
- adding or adjusting non-habit-forming medications to:
  - reduce physical pain
  - reduce withdrawal symptoms
  - treat all other medical conditions
  - reduce anxiety, irritability, sleep, and disturbance
  - improve energy, concentration, mood, and motivation



One important aspect of the comprehensive assessment at Lakeview is a review of prior medication treatment regimens. As we learn about the benefits and adverse effects of prior medications, our medical team is better able to carefully select a non-addictive medication that is more effective at stress and pain reduction with minimal or no side effects.

These non-addictive medications impact the physical source of the pain as well as the nerves that transmit the pain. They also result in reduction of physical pain, improvements in sleep, energy, anxiety, irritability, mood, and motivation.

These non-addictive medications facilitate gradual reduction of narcotic pain medication with a minimum of discomfort. Our patients generally report significant reduction in the severity of their pain within the first few days.

## Stress management and lifestyle adjustments

As an individual experiences the reduction and discontinuation of habit-forming medications (and other substances), healthy changes begin to occur in thoughts, emotions, judgment, decision-making, and behavior. These changes are unfamiliar to the individual who has consumed habit-forming medications for long periods of time.

Supportive counseling and group discussions are part of each level of care, with attention to the individual's needs and capabilities at each step along the way. The goals of counseling and group discussions include supporting and facilitating healthy changes in thoughts, emotions, judgment, decision-making, and behavior.

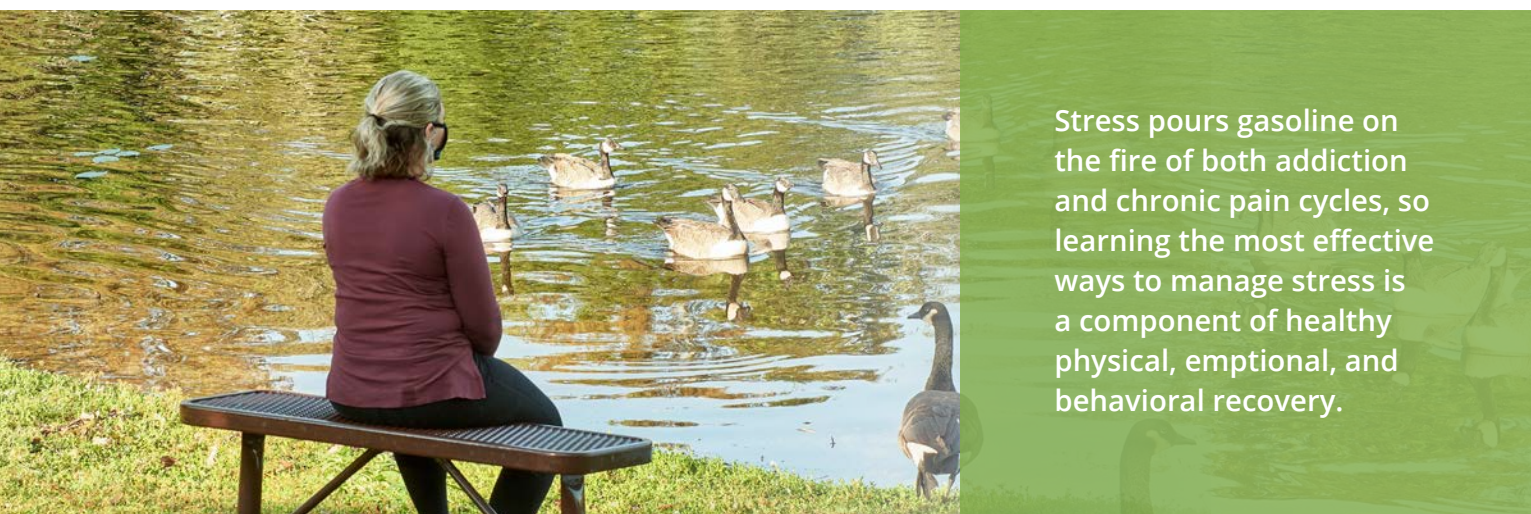
Learning to reduce the negative impact of stress on mind and body and considering lifestyle adjustments are other important aspects of recovering from co-occurring addiction and chronic pain. Integrating these into the process of

improving biological health and a healthier physical activity regimen lays the foundation for accomplishing the best possible clinical outcomes.

This includes facilitating improvement in the individual's ability to experience pleasure and fulfillment from healthy relationships, social activities, hobbies, and other leisure activities. This represents a major change from the lifestyle habits that occur in some individuals with chronic physical pain, chronic physical limitations, and long-term treatment with narcotic pain medication, which directly impact that brain's pleasure centers.

Healthy lifestyle changes often include reconnecting with family, friends, and activities that were a source of pleasure and fulfillment in the past.

Stress pours gasoline on the fire of both addiction and chronic pain cycles, so learning the most effective ways to manage stress is a component of healthy physical, emotional, and behavioral recovery. Stress reduction tools include mindfulness techniques and cognitive behavioral therapy.



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## Improving healthy physical functioning helps reduce pain

Once medically stable, the individual undergoes a physical assessment by a certified exercise physiologist in Lakeview's wellness center. Here, an individualized healthy physical activity plan is developed and introduced at a pace that does no harm. Goals include gradually improved strength, flexibility, and overall physical functioning along with reduction of pain and discomfort.

Based on a physical exam and diagnostic testing, an individualized healthy physical activity regimen is introduced to improve strength and flexibility in ways that reduce pain and help prevent further injury. "Healthy physical activity" indicates that the activity actually reduces pain without worsening the underlying cause of the pain. When this routine is practiced on a regular basis, the result is not only less physical pain but also reduced emotional stress and anxiety.

The Lakeview Health treatment team includes certified personal trainers and physical therapists who have experience working with individuals who suffer from a variety of chronic pain conditions. One of them is lead exercise physiologist Lauren Stobbie, who works with chronic pain sufferers who are in the early stages of recovery from a substance use problem.



She notes that many of those who suffer from chronic pain conditions have a loss of fitness so pronounced that they believe almost any increase in physical activity will make their pain worse. These individuals have been sedentary for many months or years.

“Often, we have to get them started slowly. Usually, I meet with the patient and we talk about an individualized program,” she says. “That way, we can build a relationship of trust. We don’t hit them with a circuit training boot camp they cannot handle.”

Sometimes, that means starting by doing exercises in bed with foam rollers and resistance bands. Other options include massage therapy and aquatic exercises in the pool. Once the individual begins to improve, their healthy physical activity regimen may include walking, stretching, yoga, and swimming.

“Patients quickly realize that an individualized healthy physical activity routine improves mood,” says Stobbie. “It is quite effective. Most of them experience improvement within two or three sessions.” Stobbie remembers a patient who didn’t think she could make it out of her room. “We worked in her room first, then we got her into the gym, and by week eight she was able to participate in a boot camp class.”

Like many who participate in the program at Lakeview, the woman was surprised at her progress. She had told Stobbie she didn’t think that kind of physical activity would ever be possible for her.

Healthy physical activity strengthens the body and makes movement less painful. It also triggers a release of endorphins (endogenous opioids) in the brain, helping to reduce pain signals in a healthy way.

Healthy physical activity helps reduce anxiety and improve sleep, mood, and motivation. It increases confidence in the return of prior healthy functioning and helps the individual become more hopeful and optimistic about the future.



## Summary and conclusions

As healthy transitions progress—physically, biologically, emotionally, and behaviorally—those who suffer from both chronic pain and addiction are routinely surprised at how much better they feel along with the improvements in their ability to function in those life roles that are important to them.

This process facilitates gradual improvement in the reduction of both physical pain and emotional suffering along with improved functioning. The main goal is to improve functioning and quality of life without worsening chronic pain or relying on habit-forming medication (or other addictive substance) as part of the treatment plan.

This comprehensive treatment approach facilitates the ability of those who suffer from chronic pain to break the dependency on habit-forming medications and other addictive substances, and to improve their functioning in those life roles that are they value most.





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