



THE REHAB CENTER INCORPORATED

www.TheRehabCenter.com

(704) 375-8900

FUNCTIONAL RESTORATION PROGRAM

The core of The Rehab Center is the Functional Restoration Program for patients with chronic pain or other conditions that impair function. Our highly structured, interdisciplinary twenty-day curriculum combines the resources of physical therapy, medical management, psychology, nursing, vocational counseling and nutrition education to assist individuals toward the restoration of function and productivity.

Referral to the Program should be considered when a patient complains of chronic pain and several or most of the following criteria are present:

- Pain or symptoms that exceed 3 months in duration
- Surgery is not indicated, or the patient did not respond successfully to surgery
- Significant use of medication for pain management
- Recovery landmarks not achieved
- Failure to benefit from acute physical therapy or a work hardening program
- History of an unsuccessful transition to work.
- Emotional distress (depression, fear, anger or anxiety)

The Rehab Center has been treating injured workers with chronic pain and other sequels of work injuries for over 25 years. We are able to accommodate patients from throughout the Carolinas and beyond by providing local lodging and transportation during the week.

Referrals can be arranged by using the online referral form at our website, www.TheRehabCenter.com, or by calling us at (704) 375-8900.

The Power of Words: The Nocebo Effect

We all recognize the power of words, especially those pronounced by an authority figure. We know that words of encouragement and praise can motivate and make us feel good, whereas negative words can upset or discourage us. Parents, psychologists, coaches, and teachers have long known that positive words can often elicit the best effort and results in others.

For years, we have also been aware of the placebo response—mechanisms that produce improvements in medical symptoms by virtue of the belief that a particular intervention will reduce those symptoms.

However, it has only been recently that scientific evidence has shown that the words used by physicians can have the power to hurt as well as to help. This negative placebo response, called the nocebo effect, occurs when the suggestion of a negative effect of an intervention leads to an actual negative outcome.

In a paper published in the journal *Pain* in 2009, researchers found that clinical-trial participants reported a high frequency of nocebo-related physical complaints and, more interestingly, that these appeared specific to the type of drug the patients believed they were taking.

The researchers reviewed 73 clinical trials conducted that tested potential anti-migraine medications against inert pills. The medications included nonsteroidal anti-inflammatory drugs (NSAIDs) such as aspirin and ibuprofen; triptans, (e.g., Imitrex); and anticonvulsant drugs (such as Topamax). Those three categories of drugs carry different adverse effects, and patients who took the inert pills tended to report experiencing problems consistent with the type of drug they thought they could be taking.

Those who thought they could be taking anticonvulsants reported memory problems or loss of appetite, but none of those who thought they might have taken an NSAID or triptan did. Likewise, only placebo groups in the NSAID trials reported side effects like stomach upset and dry mouth.

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The Power of Words: The Nocebo Effect (cont).

The nocebo effect can be observed even when people take real, non-placebo drugs. When medical professionals inform patients of possible side effects, the risk of experiencing those side effects tends to increase.

In one trial, the drug finasteride was administered to men to relieve symptoms of prostate enlargement. Half of the patients were told that the drug could cause **erectile dysfunction**, while the other half were not informed of this possible side effect. In the informed group, 44 percent of the participants reported that they experienced erectile dysfunction; in the uninformed group, that figure was only 15 percent.

The nocebo effect extends to the experience of pain. Many have observed that patients experience more pain when told by their doctors that a given procedure will be painful, compared with patients who aren't similarly warned. A team of American anesthesiologists studied women about to give birth who were given an injection of local anesthetic before being administered an epidural. Prior to the injection one group of women was told that they would be given a local anesthetic so that they would be comfortable during the procedure. The other group was told that they would feel "a big **bee sting**," emphasizing the discomfort of the injection. The women in this latter group experienced more pain.

In another experiment, patients with chronic **low back pain** were divided into two groups for a leg flexion test. One group was told that the test could lead to an increase in pain, while the other group was told that the test had no effect on pain level. The first group reported a higher degree of pain and performed fewer leg flexion exercises than the second group did.

It has been widely observed that chronic pain patients often report having been provided expectations of serious and persistent pain and disability. Often they simply misunderstand what they are told as indicative of greater and more dangerous pathology than they actually have. For some patients the term "degenerative disc disease" suggests a serious illness characterized by widespread spinal degeneration and inevitable disability, where it may only actually indicate effects of the normal aging process. Many patients with chronic pain become weaker and more

dysfunctional by avoiding routine activities, based upon the fear that they may become seriously injured with normal activity. Well-meaning medical personnel and concerned others can contribute to such fear and heightened pain perception with suggestions that injured patients "will never be the same again," and "will always have pain," despite lacking evidence that this is necessarily the case. In fact, there is evidence from a population-based [study](#) published in 2010 that over 52% of patients diagnosed with chronic pain have fully recovered from pain at follow-up six years later.

The power of the nocebo effect is such that many people with otherwise good potential for improvement never get to experience the quality of life they could attain. The tragedy of these damaged lives often owes much to the powerful words they have been told, words that can compromise or even nullify the potential for healing and betterment.

Certainly, it is important for patients with painful conditions to be able to provide informed consent for any treatment, and that includes knowledge of the potential risks and side effects associated with treatment, as well as those faced in the absence of care. However, patients provided with accurate and appropriate expectations can avoid being misled into expecting the worst.

While some feel that the responsible and helpful thing to do for their patients is to prepare them for the worst possible scenario, sometimes doing so sets a path for that very destination. In fact, the evidence suggests that a proper balance can be achieved: while risks and concerns regarding pain and activity need to be presented, truthful and straightforward information can provide more positive and realistic expectations.

The reality is that chronic pain, while presenting significant challenges to the patient, can be largely adapted to and overcome. Most patients with chronic pain are able to achieve significant improvements in function, perception of pain, and satisfaction with life with appropriate guidance for resuming activities.

The depression that so frequently follows the experience of prolonged pain becomes one of the primary causes of ongoing disability; and the nocebo effect can be instrumental in perpetuating that depression. Conversely, the provision of hope and expectations of improvement can do much to mitigate depression and help redirect patients toward a brighter future.