

Back pain (general) – Pain felt in or along the spine or musculature surrounding the spine.

Synonyms: Lumbago.

Symptoms: Back pain can be sharp, dull, stabbing, or burning. Tenderness is often present in the muscles surrounding the low back and/or sacroiliac regions. Back pain can be localized or refer pain into the leg/legs. Numbness, or “pins and needles” may be present in some cases.

How is it diagnosed?

A thorough patient history and physical exam can lead towards a diagnosis. Tissue specific diagnoses can sometimes be determined using x-ray and advanced imaging techniques such as MRI. However, x-rays and MRIs are not routinely performed. There is not a strong correlation between what we see on imaging studies and a patient’s symptoms.

The vast majority (as high as 80%) of back pain cases are treated successfully without a tissue specific diagnosis. Nonetheless, properly classifying back pain can lead to better outcomes.

<u>Classification I:</u> Serious spinal pathology: tumor, infection, fracture, cauda equina.	≈ 2% of back pain cases. Screened during initial consultation and referred out appropriately.
<u>*Classification II:</u> Neurological compromise.	≈ 10-15% of back pain cases. “Pinched nerve.”
<u>**Classification III:</u> Non-specific mechanical low back pain.	≈ 85% of back pain cases. Potential pain generators include: muscles, tendons, ligaments, fascia, facet joint, disc, sacroiliac joint.

Classifications II and III can be broken down further according to specific treatment.

<u>*Neurological compromise.</u>	<u>**Non-specific mechanical low back pain.</u>
Traction	Stabilization: exercise, bracing.
Specific exercise (flexion)	Mobilization: joint mobilization/manipulation.
Specific exercise (extension)	

There are also three stages of back pain according to its duration.

Stage	Duration	Goals of Treatment.
Acute	Persisting for less than 6 weeks	Reduce pain/swelling. Decrease spasms. Maintain or increase range of motion.
Sub-acute	6 – 12 weeks	Relieve pain. Prevent excessive scarring of repair tissue.
Chronic	Greater than 12 weeks.	Increase strength, endurance, and range of motion.

How is it treated? There is no cookie-cutter system to treating back pain. A multimodal approach is often utilized. Below is an example of how a patient may receive different treatments according to class and stage:

Jane Doe presents to the clinic for evaluation and treatment of her low back pain. She was picking up a box 2 days ago. She felt a twinge in her low back on the right side. It did not hurt at the time. Later that evening she reported her back as feeling "sore." The next morning she woke up and was in agonizing pain. 9/10 on the pain scale. The doctor does an exam with Mrs. Doe. Vital signs are normal. Nerve impingement signs are negative. Signs of instability are present. Tenderness is located over the right sacroiliac joint. The doctor suspects sacroiliac joint sprain/strain. X-rays and/or advanced imaging are postponed.

Acute stage I, mechanical low back pain:

Initial treatment: Ice, electrical muscle stimulation, natural anti-inflammatories, and light massage are recommended to reduce pain/inflammation. Low intensity core stabilization exercises are implemented. Patient gets treatment three times per week for two weeks (6 visits).

After 2 weeks, Mrs. Doe's pain dips from a 9/10 to a 5/10. Instability signs are negative. She is more active, but has increased pain at work. Some activities of daily living are hindered.

Sub-acute stage II, mechanical low back pain.

Subsequent treatment: Ice is continued. Electrical muscle stimulation is discontinued and Mrs. Doe is prescribed a TENS unit for at home pain control, to be used as needed. Natural-anti-inflammatories are continued. Chiropractic adjustments are used to further reduce pain and prevent fibrous adhesions from developing around the sacroiliac joint. Deep-tissue massage is indicated. Patient progresses further into core stabilization exercise protocols. Patient sees the doctor twice a week for three weeks (6 visits).

After 5 weeks, Mrs. Doe's pain is reduced even further from a 5/10 to a 1/10, and only with certain movements. She is able to work longer hours without pain. Her back causes minimal disruption of her activities of daily living.

Sub-acute stage II, mechanical low back pain (continued)

Final treatment: Ice and Tens are used PRN. Natural anti-inflammatories are discontinued. Deep tissue massage and chiropractic manipulation are performed as necessary. Core stabilization exercise is focused on further increasing strength and endurance. A regular at-home exercise program is recommended to reduce the chances of re-injury. Frequency of care is reduced to once per week for 3 weeks or until the patient is completely pain free (3 visits)

Alternative treatments.

Medications such as NSAID's, muscle relaxants, opioids, and joint injections. Surgery may be indicated if the nature of your injury is severe.

Prognosis: 80-90% of back pain cases resolve successfully. Reoccurrence rates are high, but flare-ups can be mitigated with proper exercise and regular chiropractic care.

10-20% of back pain cases become chronic. One of the primary goals of chiropractic care is to avoid the progression from an acute to chronic condition. If pain persists for too long, maladaptive changes occur within the peripheral and central nervous system that makes treatment much more difficult.

Duration of care: Duration of care varies according to type of injury, extent of injury, and response to treatment. Research has shown that 3-4 visits per week for 3-4 weeks is a reasonable recommendation.