



Back Pain: Overview

Background

Back pain is a common complaint for people of all ages. An estimated 80-90% of people will experience back pain sometime in their lifetimes. Chronic back pain sufferers have been estimated to constitute ¼ of the population. People who sit for prolonged periods of time are predisposed to having low back problems. Since college students spend so much time sitting in class, reading, or working on computers, a sizeable number of students will experience back pain by the end of their academic careers.

The good news is that back pain in most people will resolve within a few weeks or less. The bad news is that back pain has a tendency to recur. Some studies show that roughly 75% of back pain sufferers will have a recurrence of back pain within a year of the initial injury, and only about 25% of people suffering from back pain recover completely within a year. People suffering from back pain who do not address their problem tend to experience disruption of daily activities, sleep, work, and studies. They may have a higher chance that their condition will become disabling compared to those who seek medical attention right away. Therefore, if back pain persists, one should consult a physician.

Causes

Back pain can be a complex condition with many possible causes. Sometimes the pain is felt immediately or shortly after a specific aggravating activity or movement. In this case one can easily correlate the pain to the cause. On the other hand, the onset of back pain may be gradual with an unknown source of pain. In fact, in the majority of cases, the reason for one's back pain is largely unknown.

Some causes for low back pain include:

- **Trauma** – A fall or an automobile accident can result in injuries to back muscles, tendons, ligaments, spinal joints, and vertebral discs.
- **Overuse or Abuse** – Injury may occur during sports and exercising. Muscle and soft tissue injuries may occur if one has insufficient flexibility for the demands of the exercise, or if the muscles are not strong enough for the given activity.
- **Repetitive Movements**. Again, muscle and other soft tissue injuries may occur if the soft tissues do not have sufficient strength or endurance to tolerate the activity.
- **Poor Posture or Prolonged Static Positions** – Prolonged sitting with poor posture makes one more susceptible to having low back pain. Compared to standing, approximately 40% more stress is borne by the spinal discs while sitting. Almost twice as much stress is experienced if one is sitting in a slouched position, such as while studying or using the computer. Imbalances may also occur with poor posture or positions. Some soft tissues and joints are chronically stretched, while others become tight over time. These imbalances can lead to back pain. Please refer to the [Posture and Study Habits Guide](#) on the McKinley Health Center website for ergonomic tips and for improving postural problems.

References

- "Low Back Pain: Treatment and Prevention."* *Harvard Men's Health Watch*. Dec 2006: 4-6.
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- Kofotolis, N. and Sambanis, M. "The influence of exercise on musculoskeletal disorders of the lumbar spine," *Journal of Sports Medicine and Physical Fitness* 45.1 (2005): 84-92.
- Becker, M., et al. "Postural changes while sitting may trigger back pain," *BioMechanics* 10.8 (2003): 52-54.
- Devroey, C., et al. "Evaluation of the effect of backpack load and position during standing and walking using biomechanical, physiological and subjective measures," *Ergonomics*, 50.5 (2007): 728 – 742.

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: [Dial-A-Nurse at 333-2700](tel:333-2700)

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: <http://www.mckinley.illinois.edu>