

Study found Nine Modifiable Triggers for Low Back Pain

Low back pain is a common disorder involving the muscles and bones of the back; it affects approximately 10% of the world's population at some point in their lives.

The spine is designed to hold the body up right and serve as its primary support.

On the bright side, you can take measures to prevent or lessen most back pain episodes. If prevention fails, simple home treatment and proper body mechanics will often heal your back within a few weeks. and keep it functional for a long time.

The low back includes the lumbar curvature of the spine, is made of bones, muscles, nerves, ligaments, tendons and intervertebral disks which is important part of the body that have so many complex moving parts that requires a special care from you.

Types of low back pain:

Back pain is classified as acute or chronic. Acute back pain is usually the result of an injury or a sudden jolt and can last from a few days to a few weeks; it is generally resolved from 6 to 12 weeks. Back pain becomes chronic when it persists for 3 to 6 months beyond the expected healing time. It is possible of low back pain to progress from acute to chronic.

Causes and risk factors:

- Age- as people age increase, bone strength lessens as do muscle elasticity and tone. The discs between the vertebrates lose fluid and flexibility which decrease their ability to cushion spinal compression.
- Physically strenuous work or back sprains, strains, spasm, disc ruptures that can be caused by lifting items that is too heavy or by using improper lifting techniques.
- Overstretching
- Poor physical condition.
- Obesity.
- Stress: It should be emphasized that even though psychological factors may be causing the physical symptoms, the symptoms are not imaginary; this means that psychological factors either initiated or are maintaining the back pain, or both.
- Poor sleeping position.
- Inappropriate posture.

Signs and symptoms:

Common symptoms of low back pain include:

- Muscle ache.
- Shooting or stabbing pain.
- Limited flexibility or range of motion.
- Inability to stand straight.

When ongoing pain is not relieved. Chronic pain sufferers may experience:

- Poor sleep quality and lack of concentration.

- Inability to perform tasks well at home or work.
- Irritability.
- Depression.

The study:

The TRIGGERS study employed a case–crossover design to quantify the risk associated with transient exposure to modifiable triggers for back pain, the study aimed to reduce the potential for between-person confounding and to eliminate potential confounders such as genetic and lifestyle influences and to investigate a number of transient physical and psychosocial risk factors for an episode of sudden-onset, (LBP). Physical factors included: heavy loads; awkward positioning; handling of objects far from the body; handling people or animals and unstable loading; a slip, trip, or fall; engagement in moderate or vigorous physical activity; and sexual activity. Psychosocial factors included alcohol consumption and being distracted and fatigued.

A total of 999 consecutive patients, were recruited age ≥ 18 years and with a new episode of acute back pain, (Patients were excluded from the study if they presented with known or suspected serious spinal pathology (e.g., metastatic, inflammatory, or infective diseases of the spine).

Participants were interviewed, During the interview, participants were asked to identify the date and time of pain onset with the assistance of recommended recall aids such as a diary, calendar, and/or smart phone. Each participant was then asked to report exposure, including its time and duration, to each of the 12 putative triggers in the 96 hours preceding the onset of back pain.

Participants were also questioned regarding their habitual physical activity. This was assessed using a questionnaire, which estimates the total number of hours of light, moderate, and vigorous physical activity performed by the participant in the past week.

A frequency distribution graph of pain onset by time of day (in hours) was calculated. Conditional logistic regression models were constructed to quantify the risk of back pain onset associated with each trigger, Secondary analyses evaluated interaction between exposure to triggers and habitual physical activity, age, body mass index (BMI), number of previous LBP episodes, depression, and anxiety scores.

The study showed that morning were the most frequent time of the day for back pain onset, and that the greatest risk for an episode of acute LBP was associated with the psychosocial trigger of being distracted during a task or activity, All of the physical triggers except sexual activity were strongly associated with increased risk for back pain, The most dangerous physical trigger was manual tasks involving awkward positioning. In addition, alcohol consumption was not linked to increased risk of LBP.

Transient exposure to a number of modifiable physical and psychosocial triggers substantially increases risk for a new episode of LBP. Triggers previously evaluated in occupational injury studies, but never in LBP, have been shown to significantly increase risk. These results aid our understanding of the causes of LBP and can inform the development of new prevention approaches.

References:

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- 2- Janis C. Kelly, Study Found Nine Modifiable Triggers for Low Back Pain, *Medscape Medical News*, March 23, 2015

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