



Backache: General Concepts

Backache is one of the commonest problems presenting in a Primary Care Physician's clinic, with almost 90% - 95% patients getting backache, of whatever cause, at least once in their lifetime. Besides injury, infections and degenerative changes, backache most commonly results from bad posture i.e. placing too much stress on the back - as in lifting a heavy object, bending wrongly and sitting, standing, sleeping for several hours continuously or in incorrect positions.

To understand backache, we must first realize the importance of a normal spine. The busy and stressful life we lead, is possible only due to the spine that acts as support for the human frame, keeping it upright for long hours at a stretch and allowing for all kinds of contortions. The spine, made of 33 vertebrae, features three natural curves:

- The cervical curve, with 7 vertebrae in the neck area which allows us to turn our head freely.
- The thoracic curve, with 12 vertebrae in the upper-back, each of them attached to a rib, provides stability, at the cost of free movement, like the

cervical vertebrae

- The lumbar curve, with 5 vertebrae in the lower back, which receives the most stress and strain as it has to bear the weight of all abdominal organs pressing against the abdominal wall and no benefit of support like the thoracic curve.
- Below the lumbar region are 5 fused vertebrae of the sacrum and 4 fused vertebrae of the coccyx.

Then there are inter vertebral disc(s) to cushion the vertebrae and absorb shocks to the spine during movements. Joining each pair of vertebrae is a facet joint that functions like a hinge.

Causes:

1. Mechanical—spine and multitude of joints. Excessive pressure or strain on the back may result in strains or sprains. A ligament stretched beyond its limit sends pain signals. A muscle given a task that the body is not accustomed to, responds with severe tearing pain. It and nearby muscles go into a temporary, protective spasm - to discourage continued use. Pain → spasm → pain is a vicious cycle that is often protective.
2. Disc Prolapse: most often seen in the Lumbar region as the vertebrae are unsupported on either side and subjected to a wide range of movements. Lowest 2 lumbar discs (L4-L5 & L5-S1) are more prone.
 - L4 L5 prolapse – L5 root compression: - great



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toe extension is weak- ↓ sensation, outer dorsum of foot

- L5 S1 prolapse – S1 root compression:
 - calf pain
 - weak plantar flexion
 - ↓ sensations sole & back of calf
 - ankle jerk

3. Retroperitoneal disease (DU, Cancer Pancreas, Aneurysm etc)

- pain is often Lumbodorsal
- spine movements are pain free & full

4. Backache may be a symptom of other serious illness such as

- Malignancy
- Arthritis
- Earliest signs of osteoporosis
- Infection or congenital defect in the vertebrae.
- Referred pain from either kidneys, heart, prostate; uterus, ovaries, pancreas, stomach or liver
- Women often suffer from low-back pain, during the last months of pregnancy. The weight of the child causes lordosis but is not enough to compensate.
- Leucorrhoea
- Emotional causes - Emotional problems often contribute to the development of backache. This seems particularly true of a type of low back pain that is accompanied by stiffness, difficulty in bending and moving, and shooting pains in the buttocks and legs. Backache is widely considered as a symptom of overburdened people. A muscle spasm may be the result of depression or anxiety. Suspect depression as an underlying cause if the backache is accompanied by constipation, insomnia, loss of appetite or weight and loss of interest in sex. If emotional problems are contributing to backache, psychotherapy and medication are often beneficial.

APPROACH TO BACK

- Appearance – ? Protective Scoliosis
- Examination
 - Flexion
 - Extension
 - Lateral Flexion
 - Rotation
 - SLR (Lasegue sign)
- Iliac Fossae

NON-SINISTER BACKACHE

- Pain brought on by activity and relieved by rest is not likely to be sinister
- Simple Lumbosacral pain
- Age 20-55 with mechanical pain caused by twisting and > on moving
- No fever
- No wt loss
- Pt otherwise appearing OK
- Nerve root pain
- One LL hurting > back
- Radiation to foot, toes
- Hip flexion → pain in the leg

SINISTER BACKACHE- Immediate referral for investigation / hospitalization without giving the customary bed rest and medical treatment

- Bladder / Bowel function affected (cord compression)
- Bilateral Sciatica (Alternating too)
- Violent trauma
- Spine movements in ALL directions painful
- Widespread CNS signs - CNS deficit at more than one root
- Pain not related to mechanical events
- Thoracic pain + deformity
- Past History – TB, HIV, Neoplasm, Long term steroid use
- Weight loss, fever, pt appears unwell

SAME DAY REFERRAL

- Gait disturbances
- Sphincter disturbances
- Saddle anesthesia
- Bilateral Sciatica

