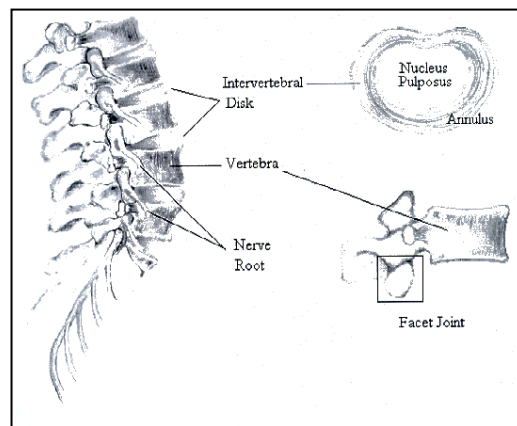


**DESCRIPTION:** Eighty percent of adults will experience significant low back pain sometime during their lifetime. Low back pain usually involves muscle spasm of the supportive muscles along the spine. Also, pain, numbness and tingling in the buttocks or lower extremity can be related to the back. There are multiple causes of low back pain (see below). Prevention of low back pain is extremely important, as symptoms can recur on more than one occasion.

#### COMMON CAUSES:

- **Muscle strain.** The muscles of the low back provide the strength and mobility for all activities of daily living. Strains occur when a muscle is overworked or weak.
- **Ligament sprain.** Ligaments connect the spinal vertebrae and provide stability for the low back. They can be injured with a sudden, forceful movement or prolonged stress.
- **Poor posture.** Poor postural alignment (such as slouching in front of the TV or sitting hunched over a desk) creates muscular fatigue, joint compression, and stresses the discs that cushion your vertebrae. Years of abuse can cause muscular imbalances such as tightness and weakness, which also cause pain.
- **Age.** “Wear and tear” and inherited factors may cause degenerative changes in the discs (called degenerative disc disease), and joint degeneration of the facet joints of the spine (called degenerative joint disease). Normal aging causes decreased bone density, strength and elasticity of muscles and ligaments. These effects can be minimized by regular exercise, proper lifting and moving techniques, proper nutrition and body composition, and avoidance of smoking.
- **Disc bulge.** or herniation, can cause pressure on a nerve, which can radiate pain down the leg. This generally responds well to a strengthening and stretching program and rarely requires surgery.
- **Other causes** of low back pain include bladder/kidney infection, endometriosis, cancer, or ovarian problems.



#### TREATMENT:

- **REST:** Rest from aggravating activity. Avoid prolonged sitting, driving, bending, heavy lifting and twisting.
- **ICE:** Ice applied to the low back for 15 minutes every 1 – 2 hours is helpful in reducing pain and spasm. Avoid using heat for the first 48 hours of an acute injury.
- **NSAIDs:** Your doctor may prescribe anti-inflammatory medication such as aspirin, advil, aleve, ibuprofen or naproxen sodium.
- **EARLY EXERCISE:** Gentle exercise for mobility and stretching (especially the muscles of the legs and back) can help decrease the severity, duration and recurrence of low back pain. Try the suggested exercises on the back of this sheet. Do not perform exercises that increase your pain.
- **POSITIONING:** Modifying your sleeping position can help ease strain to your low back. Make sure your bed is firm enough to give you adequate support, and use a small pillow for your head. If you sleep on your back, try putting a pillow under your knees. Or if you prefer to sleep side lying, put a pillow between your thighs and if you are side bent, a folded towel under your waistline.

#### PREVENTION:

- Once the severity of pain has decreased, a rehabilitation program to strengthen your hip, abdominal and back muscles can help prevent recurrences.
- Posture! Posture! Posture! The goal is neutral spine, not slumped or over-arched.
- Proper lifting and body mechanics.

See your health care provider if you have the following: significant pain that persists beyond a week, unexplained fever, unexplained weight loss, redness or swelling on the back or spine, pain /numbness /tingling that travels down the leg(s) below the knee, leg weakness, bowel or bladder problems, or back pain due to a severe blow or fall.

***If your symptoms do not resolve within 2-4 weeks please contact your clinician.***



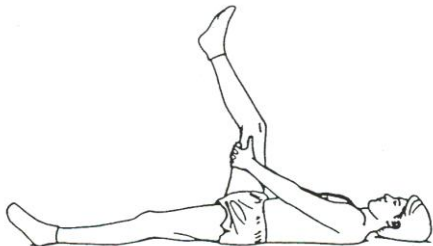
**UNIVERSITY HEALTH SERVICES** Tang Center  
>PHYSICAL THERAPY

## **BASIC EXERCISES FOR THE LOW BACK**

Perform these exercises slowly, without forcing movement. Be sure to breathe throughout the exercises. You should feel a slight stretch, however, do not move into pain. Your symptoms should not intensify as a result of doing your exercises. Perform the exercises 2-3 times daily.



**Hamstrings (fig.1)**



Lying on floor, pull thigh towards your chest to about 90°. Straighten your knee until a stretch is felt in back of thigh. Hold 1 minute. Repeat with opposite leg.



**Single Knee to Chest (fig.2)**



Pull knee in to chest until a comfortable stretch is felt in hip and lower back. Hold 15 seconds. Repeat with opposite leg. Repeat 5-10 times each leg.



**Pelvic Tilt (fig.3)**



Flatten back by tightening stomach and buttock muscles. Hold 10 seconds. Repeat 10 times.



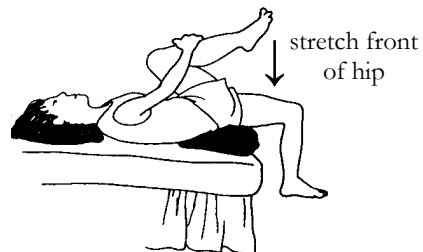
**Cat and Camel (fig.4)**



On all fours, assume a "hump" back position by arching the back up. Hold briefly and then slowly lower the back into a sagging position. Repeat 10-15 times.



**Hip Flexors(fig.5)**



Lying on your back, pull one knee to the chest to keep the back flat. Allow the opposite thigh to drop over the edge of the bed. Do not allow the thigh to move away from the midline or rotate. Hold 30 seconds. Repeat 2 times each leg.



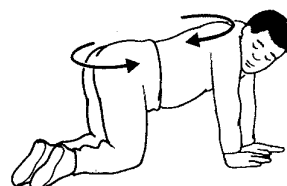
**Prop Up on Elbows (fig.6)**



On firm surface, lying on your stomach, prop up on your elbows. Keep pelvis, hips and legs relaxed. If propping on elbows is painful, try only lying on stomach or with a pillow under your abdomen. Hold 30 seconds. Repeat 3-5 times.



**Tail Wag (fig.7)**



On all fours with back maintained in neutral position, gently move hips toward rib cage to side bend trunk. Hold briefly, then alternate and do other side. Repeat 10-15 times.



**Lumbar Rotation (fig.8)**



Slowly rock knees from side to side in a pain free range of motion. Allow back to rotate slightly. Repeat 10-15 times.