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KEEPING EVERYBODY HEALTHY
LOW BACK PAIN



Health and Independence Report 2019

The Director-General of Health's
Annual Report on the
State of Public Health

Table 6: Leading specific causes of health loss, 2019

| | Cause | Percent of total DALYs |
|----|---------------------------------------|-------------------------------|
| 1 | Ischaemic heart disease | 7.7 |
| 2 | Low back pain | 4.5 |
| 3 | Chronic obstructive pulmonary disease | 3.9 |
| 4 | Falls | 3.7 |
| 5 | Stroke | 3.5 |
| 6 | Lung cancer | 3.4 |
| 7 | Colorectal cancer | 2.6 |
| 8 | Diabetes | 2.6 |
| 9 | Anxiety disorders | 2.6 |
| 10 | Depressive disorders | 2.4 |

Source: Global Burden of Disease Collaborative Network (2020)

Table 7: Leading specific causes of morbidity, 2019

| | Cause | Percent of total YLDs |
|----|--------------------------|------------------------------|
| 1 | Low back pain | 8.9 |
| 2 | Falls | 6.0 |
| 3 | Anxiety disorders | 5.1 |
| 4 | Depressive disorder | 4.8 |
| 5 | Headache disorder | 4.4 |
| 6 | Age-related hearing loss | 4.2 |
| 7 | Mechanical forces | 4.0 |
| 8 | Oral disorders | 3.7 |
| 9 | Osteoarthritis | 3.7 |
| 10 | Diabetes | 3.3 |

Source: Global Burden of Disease Collaborative Network (2020)

Effects of Chronic Pain on the Patient

Physical Functioning

- Ability to perform activities of daily living
- Sleep disturbances

Psychological Morbidity

- Depression
- Anxiety
- Anger
- Loss of self-esteem

Social Consequences

- Relationships with family and friends
- Intimacy/sexual activity
- Social isolation

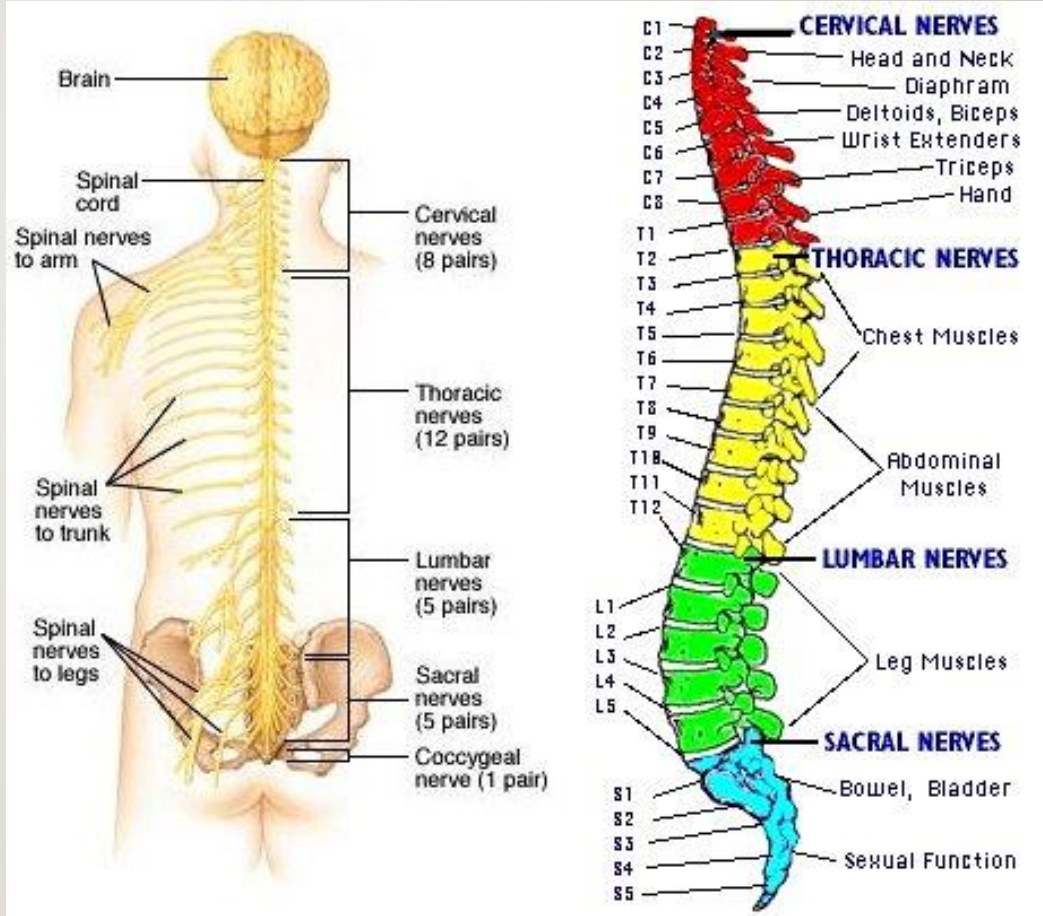
Societal Consequences

- Healthcare costs
- Disability
- Lost workdays

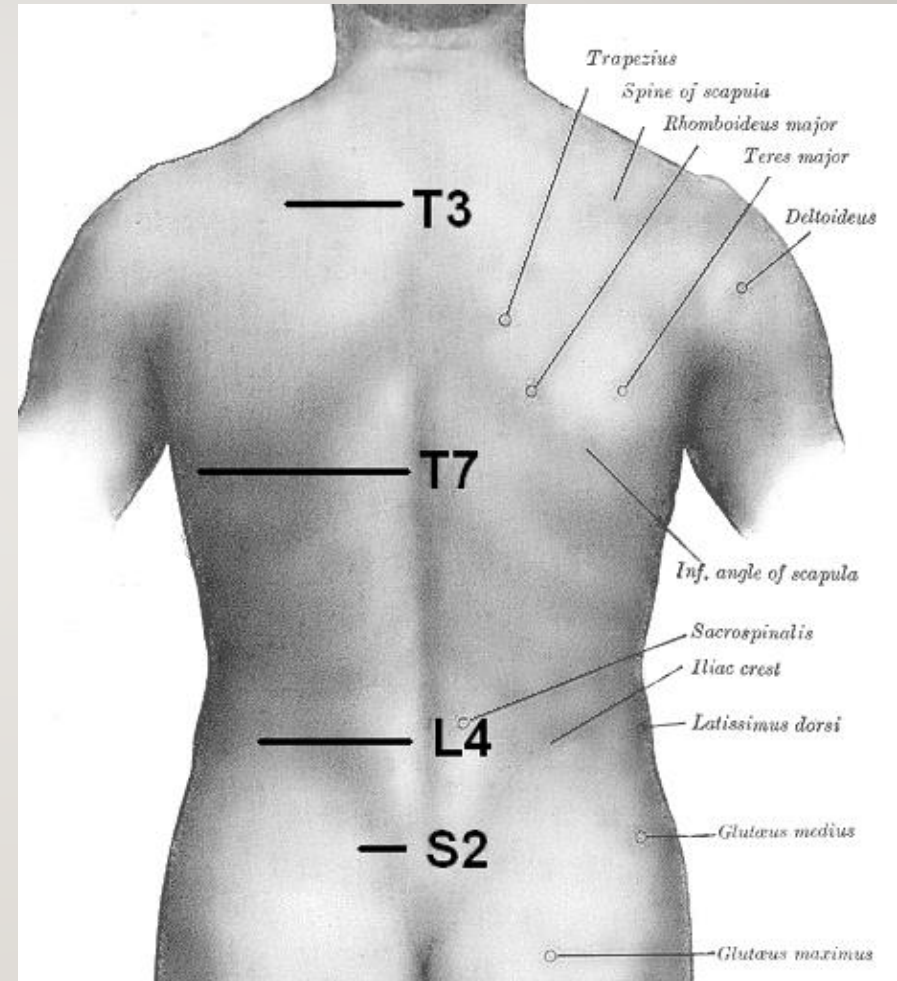
LOW BACK PAIN

- We all suffer from low back pain sometime in our lifetime
- 80-95% recover in 3 months
- 80% have no cause found
- Each year, around 5-10% workforce is off due to low back pain, most less than 7 days
- Around 2% workforce is disabled due to low back pain
- The problem seems to be getting worse

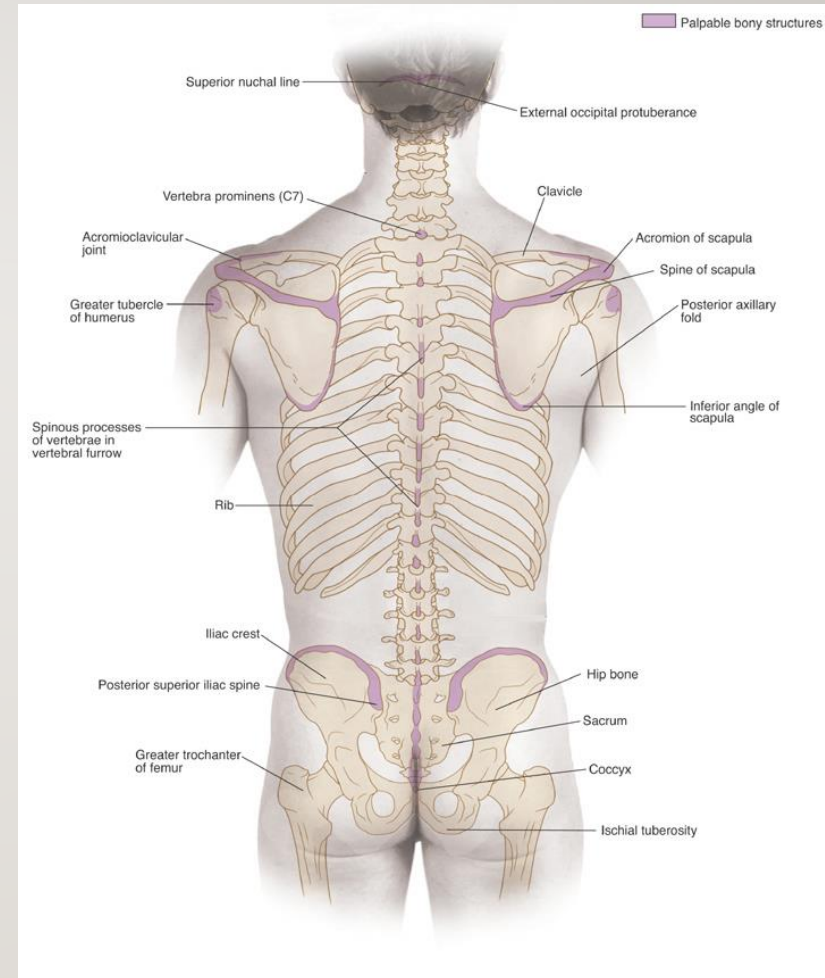
SPINE ANATOMY



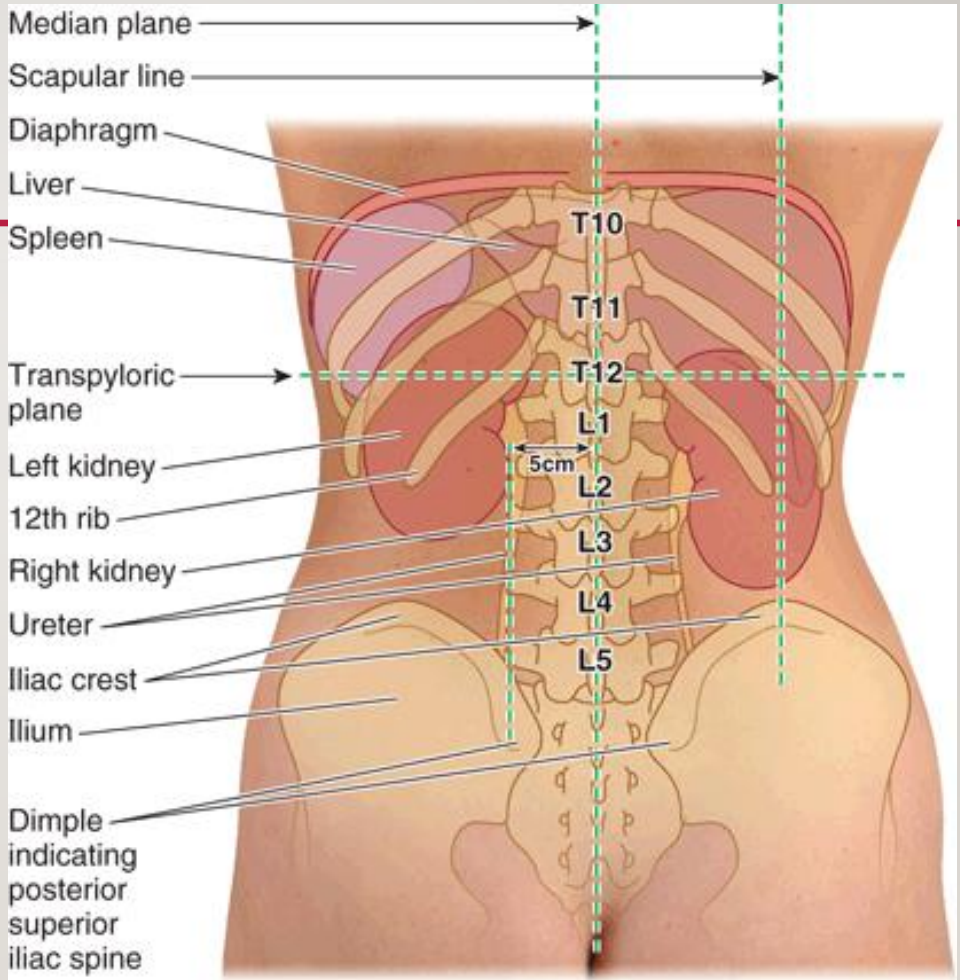
SURFACE ANATOMY



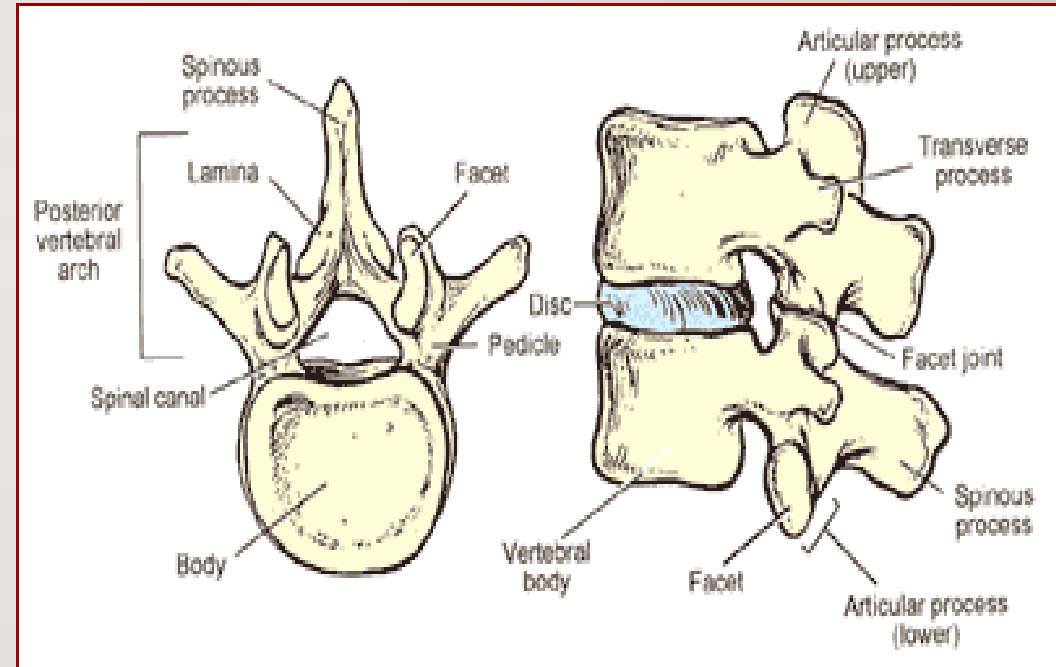
SURFACE ANATOMY



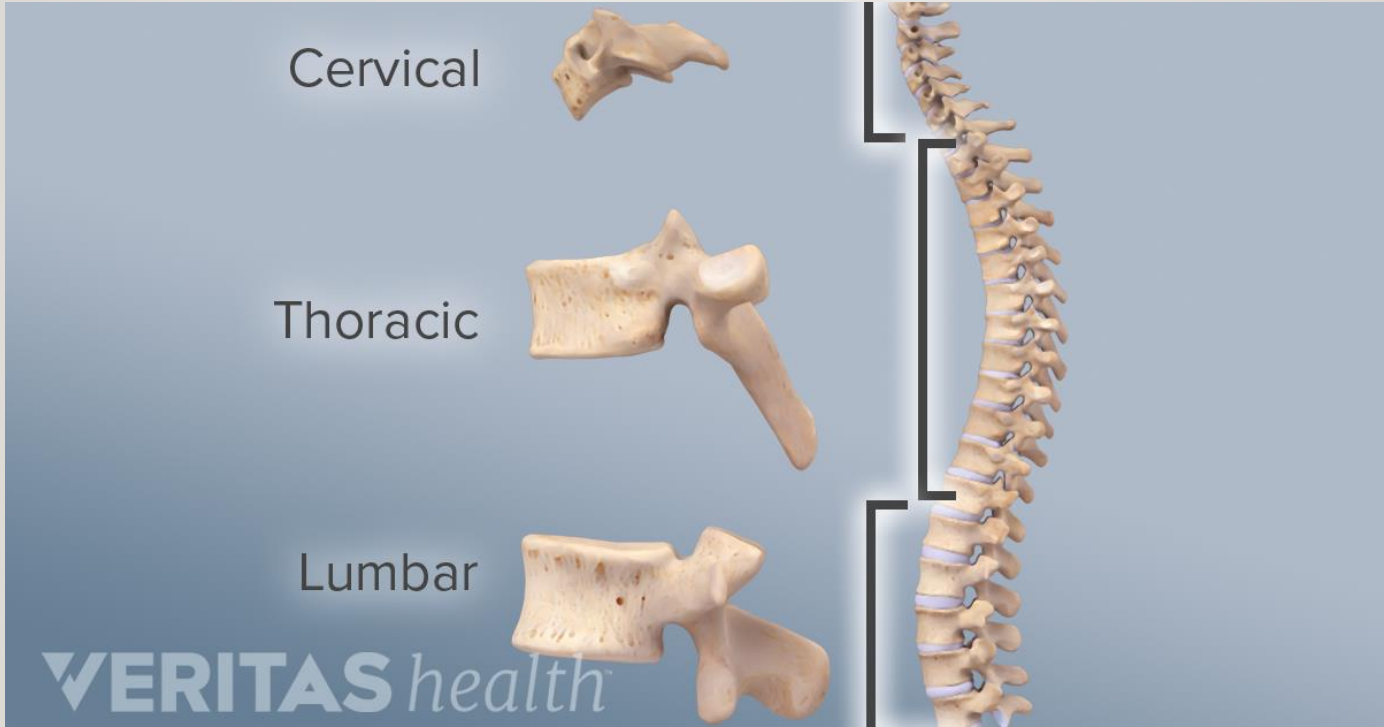
SURFACE ANATOMY



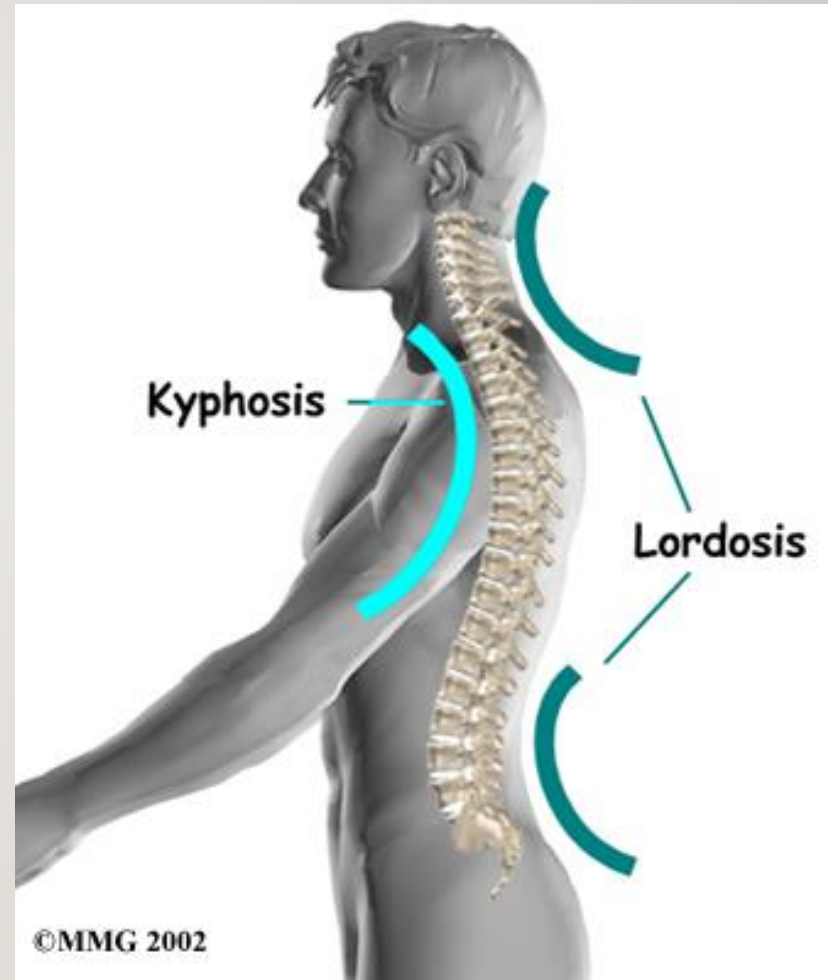
VERTEBRAL BODY



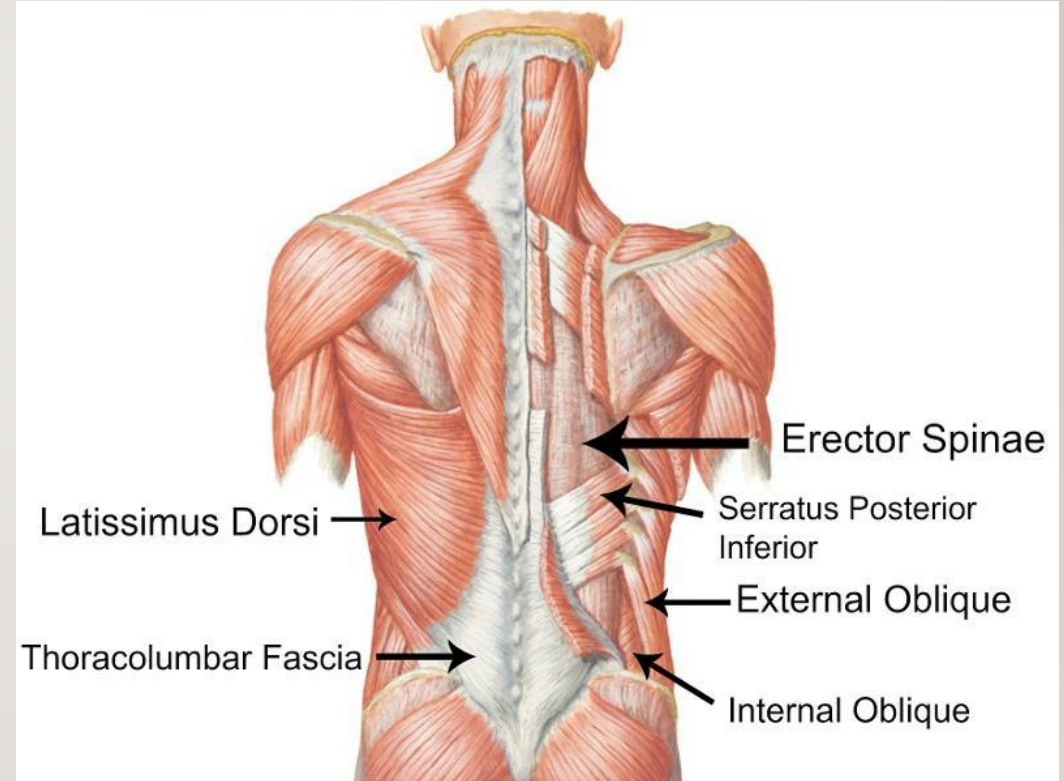
VERTEBRAL BODIES AT DIFFERENT LEVELS



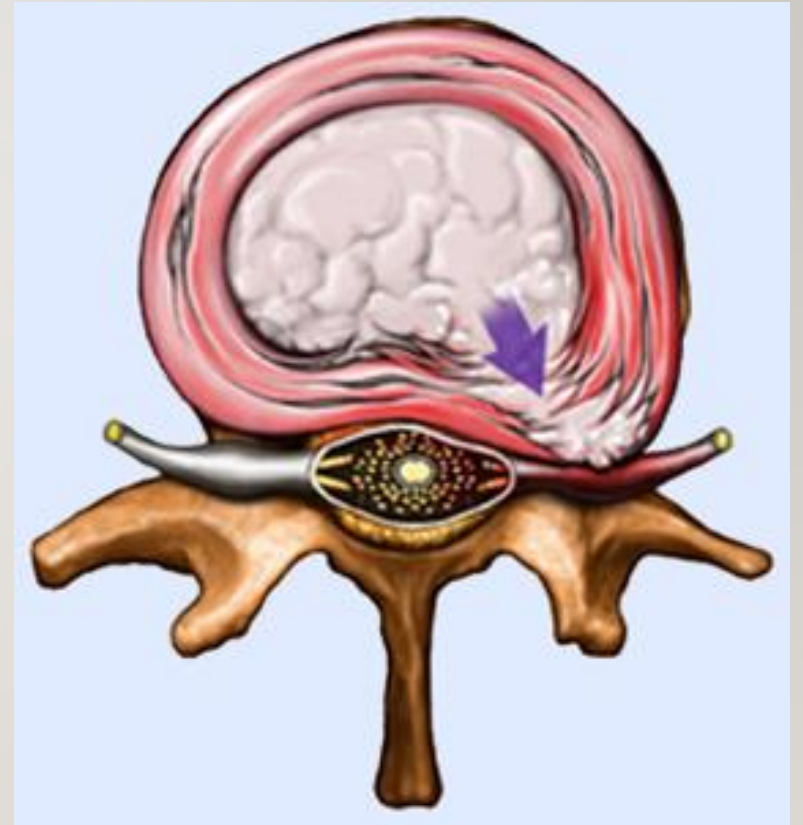
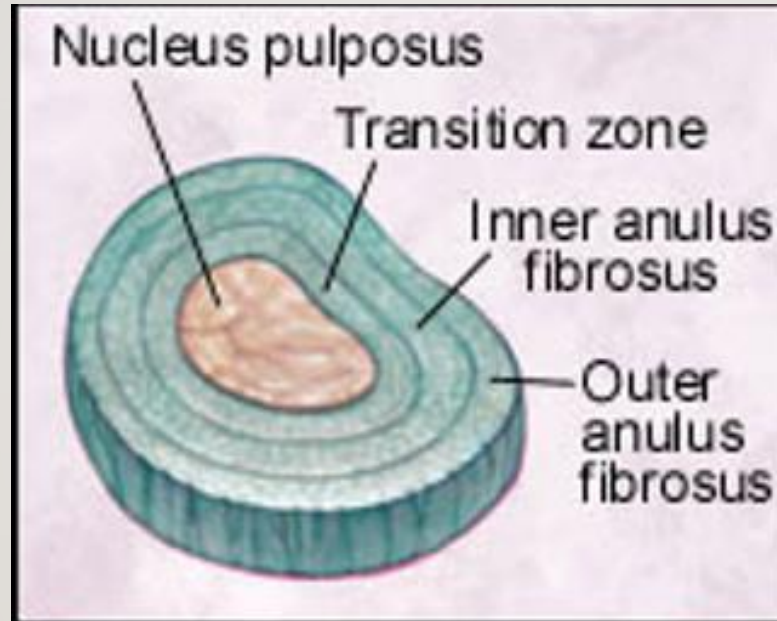
CURVE



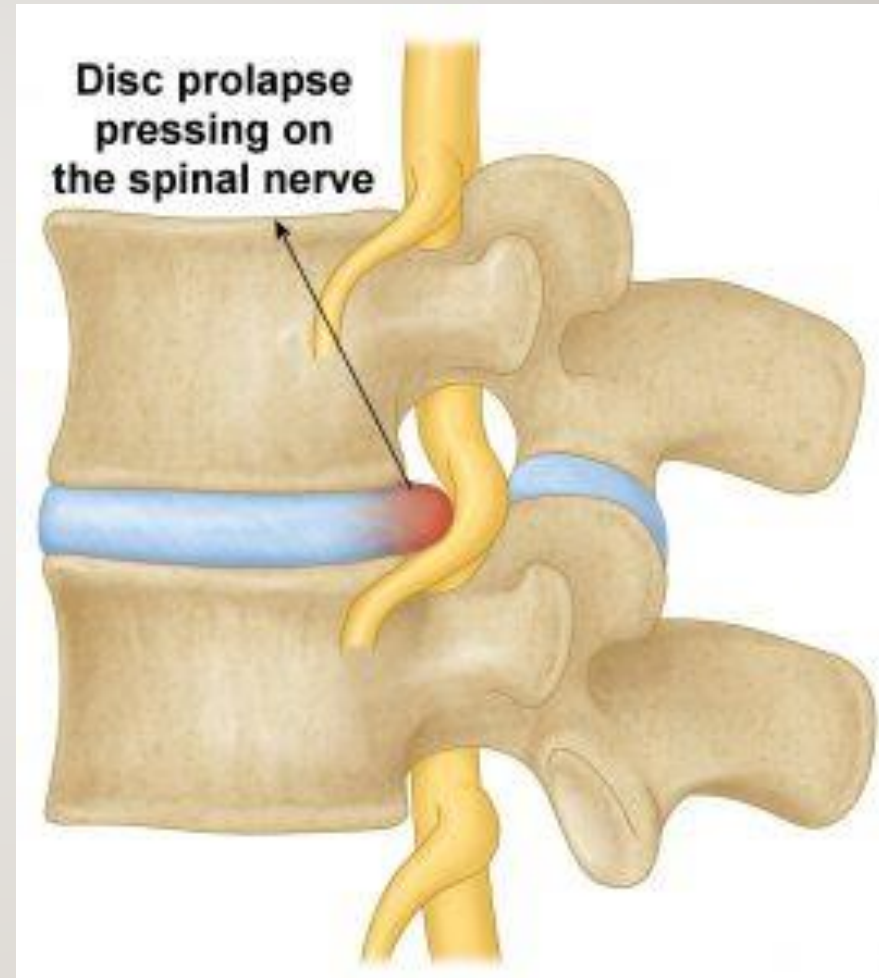
BACK MUSCLES



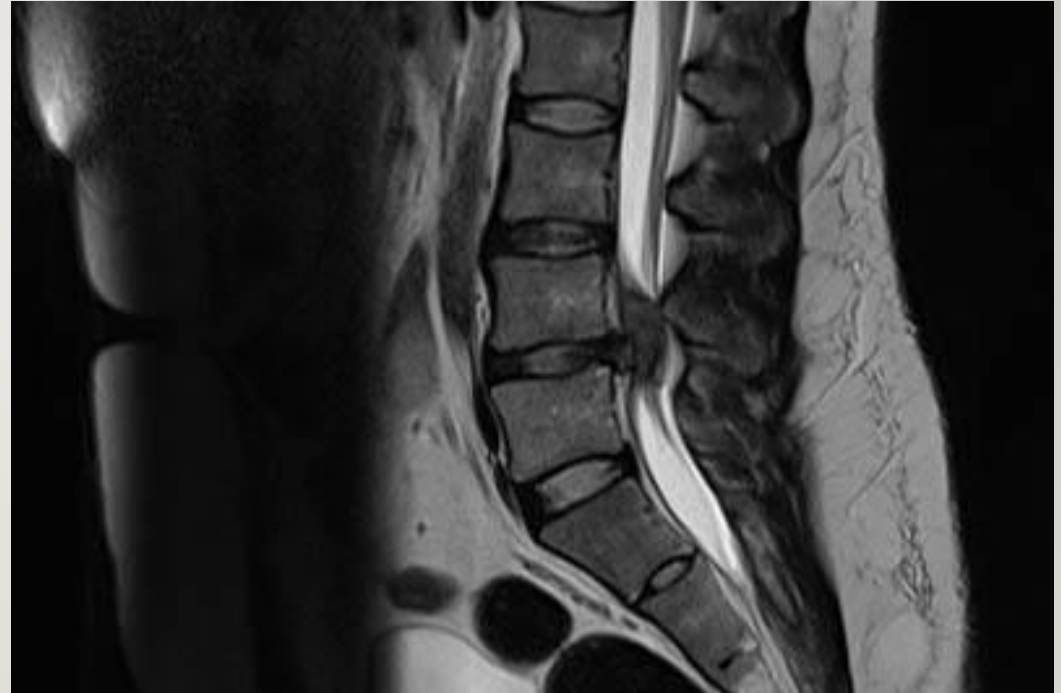
ANNULAR TEAR



DISC PROLAPSE



DISC PROLAPSE



DISC HERNIATION

Four stages to a disc herniation

Degeneration



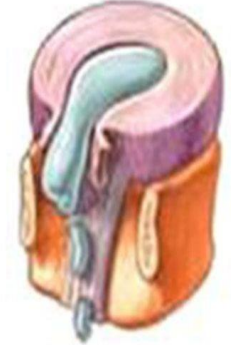
Prolapse



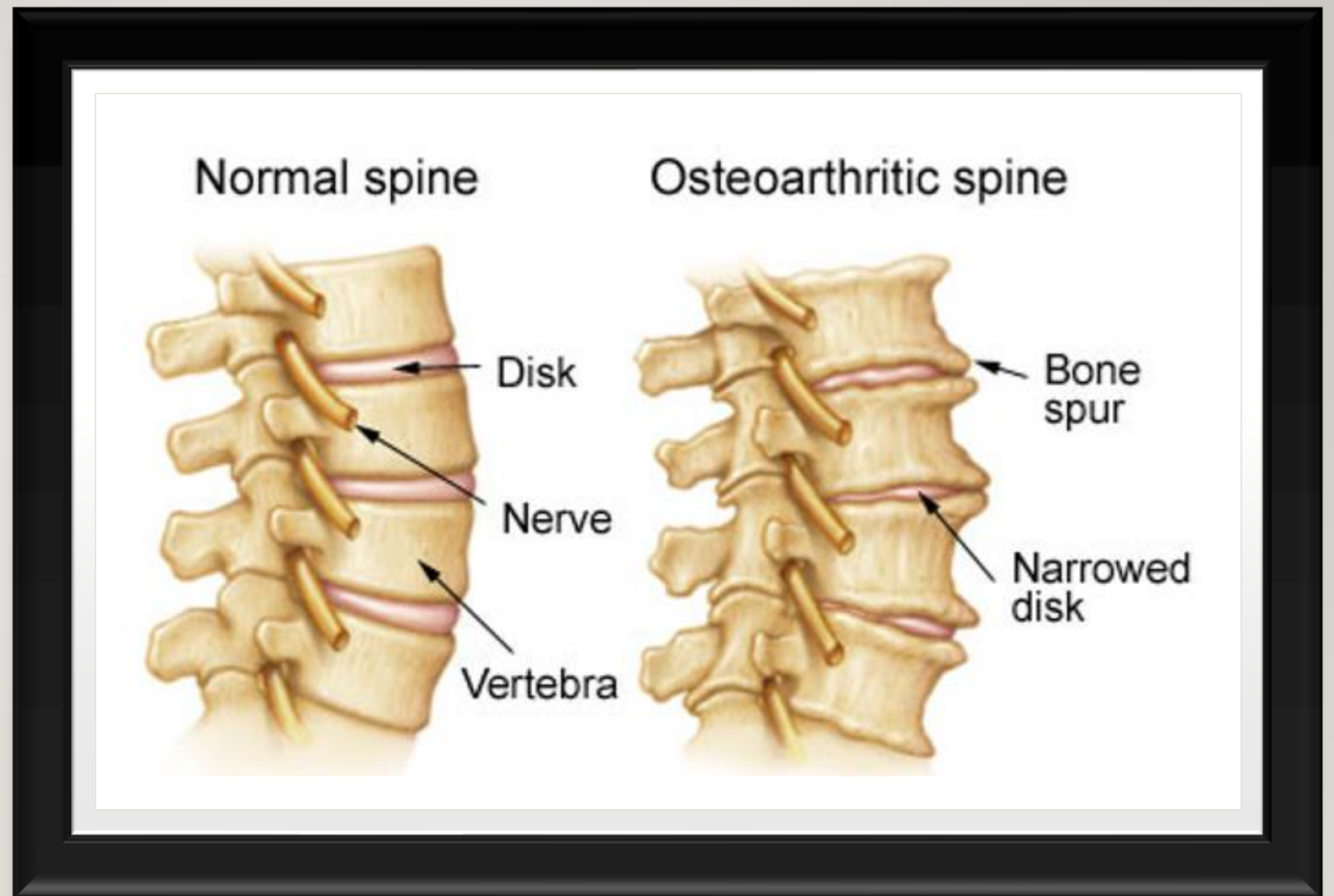
Extrusion



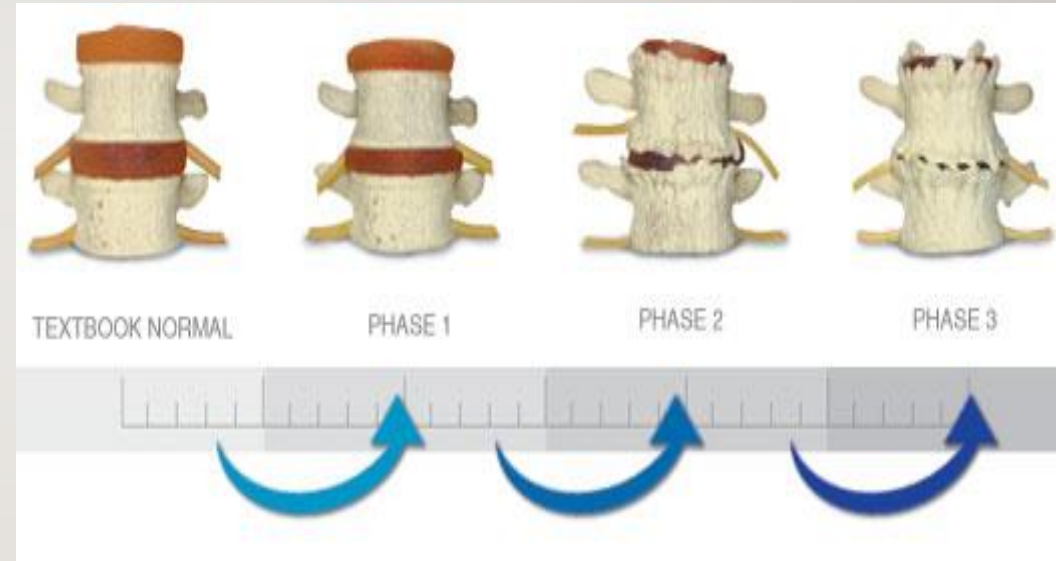
Sequestration



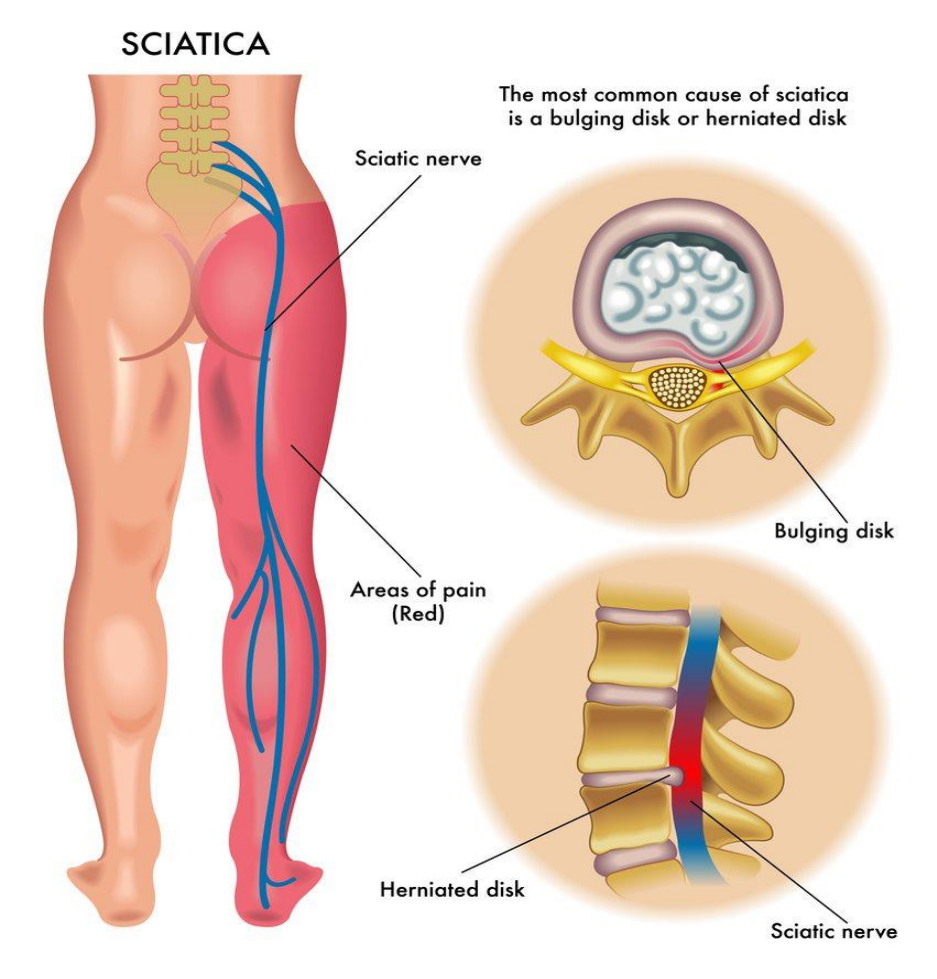
DISC DEGENERATION









DISC DEGENERATION



SCIATICA



BACK PHYSICAL EXAMINATION

| Nerve root | L4 | L5 | S1 |
|-----------------------|---|---|---|
| Pain |  |  |  |
| Numbness |  |  |  |
| Motor weakness | Extension of quadriceps | Dorsiflexion of great toe and foot | Plantar flexion of great toe and foot |
| Screening examination | Squat and rise | Heel walking | Walking on toes |
| Reflexes | Knee jerk diminished | None reliable | Ankle jerk diminished |

STRAIGHT LEG RAISING



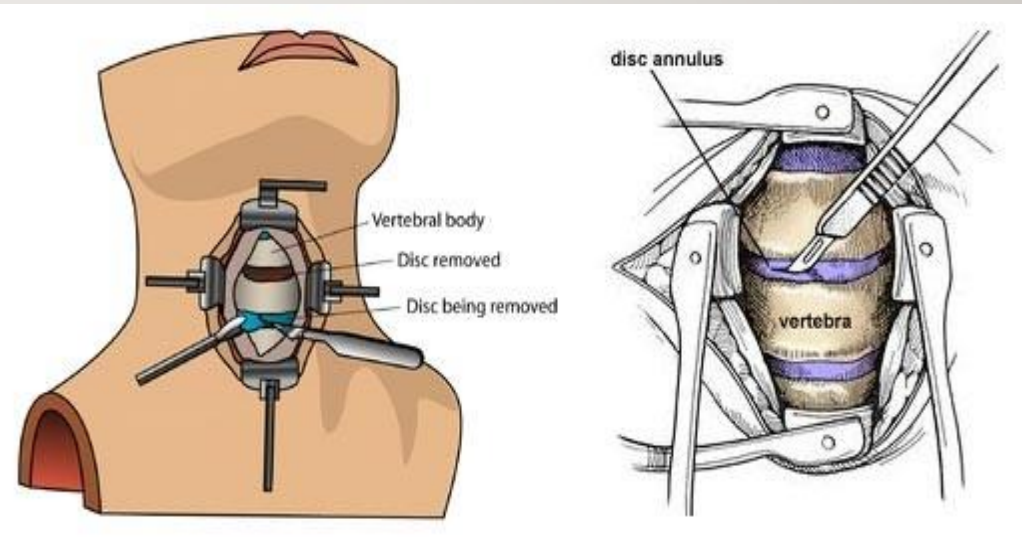
PHYSIO
ACUPUNCTURE
OT
CHIROPRACTIC
MASSAGE
EXERCISE.....



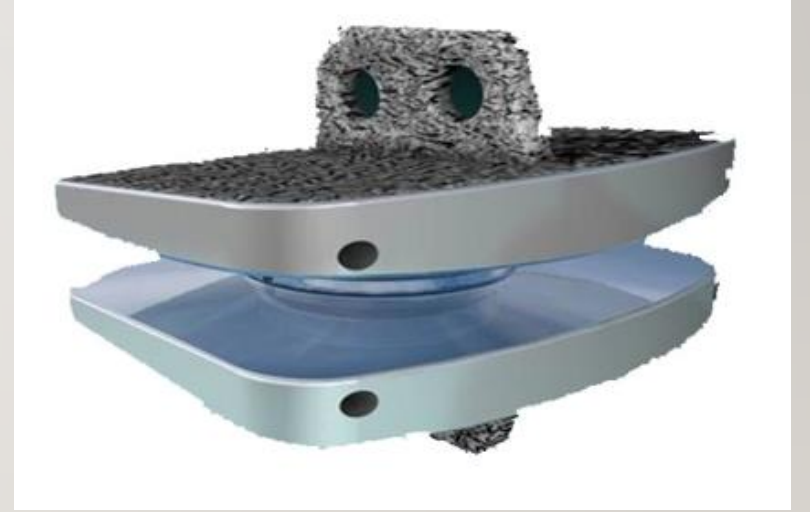
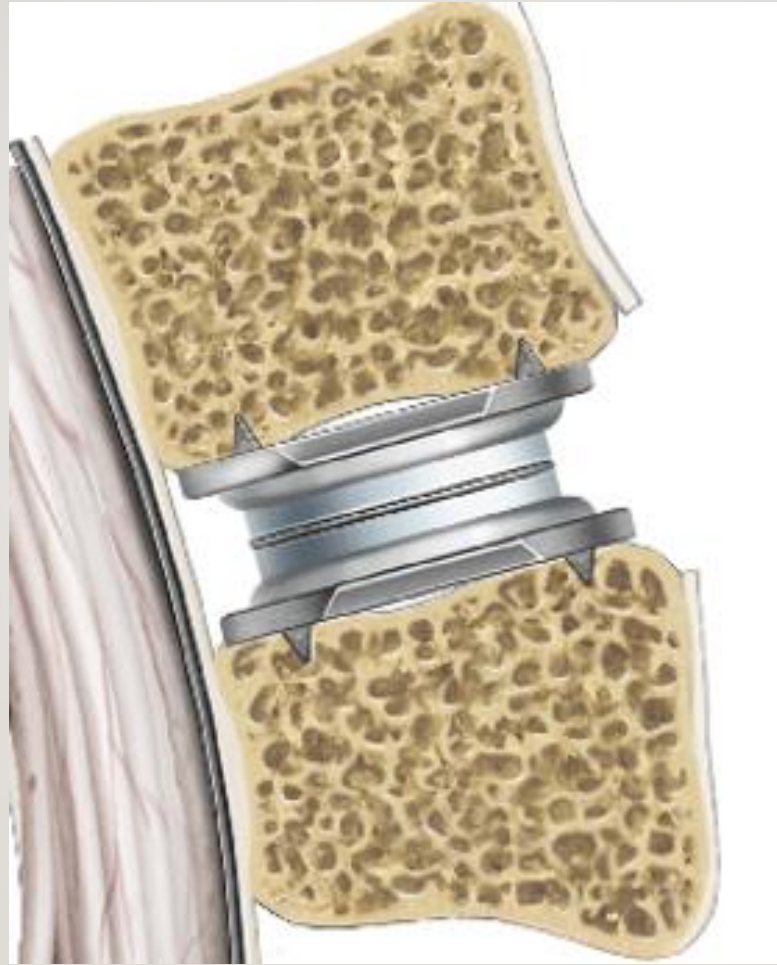
PAIN RELIEF

- Paracetamol
- Muscle relaxants
- Anti-inflammatories
- Panadeine
- Tramadol
- Pregabalin, duloxetine

DISCECTOMY



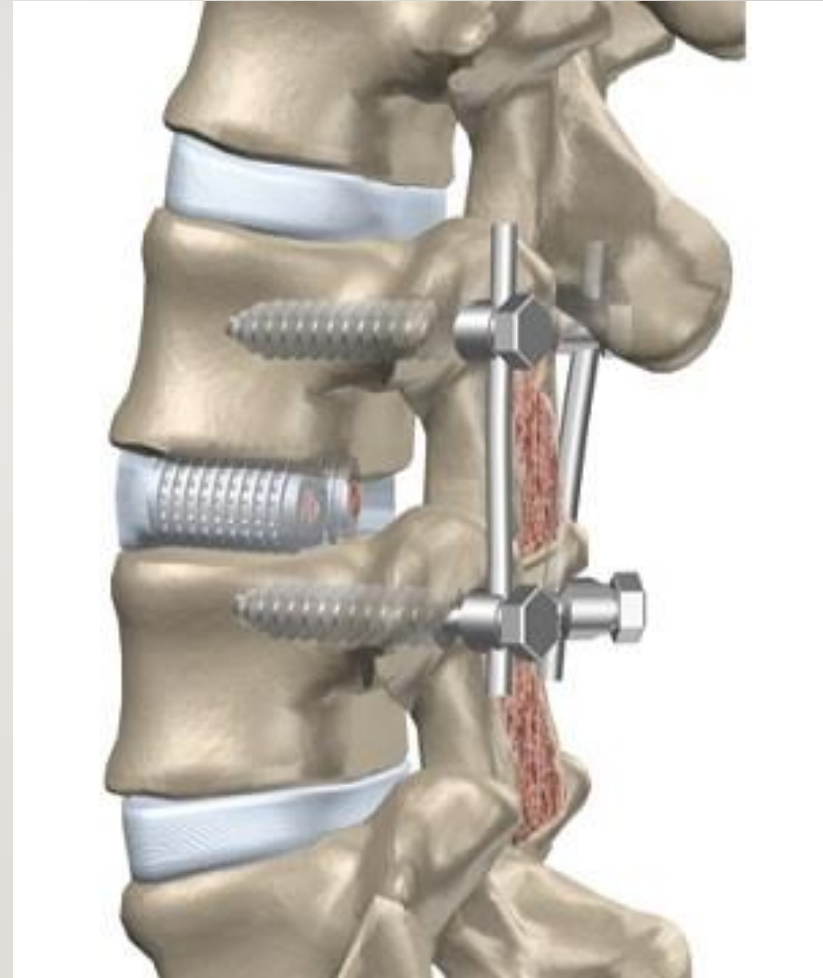
DISC REPLACEMENT



COMPLICATIONS



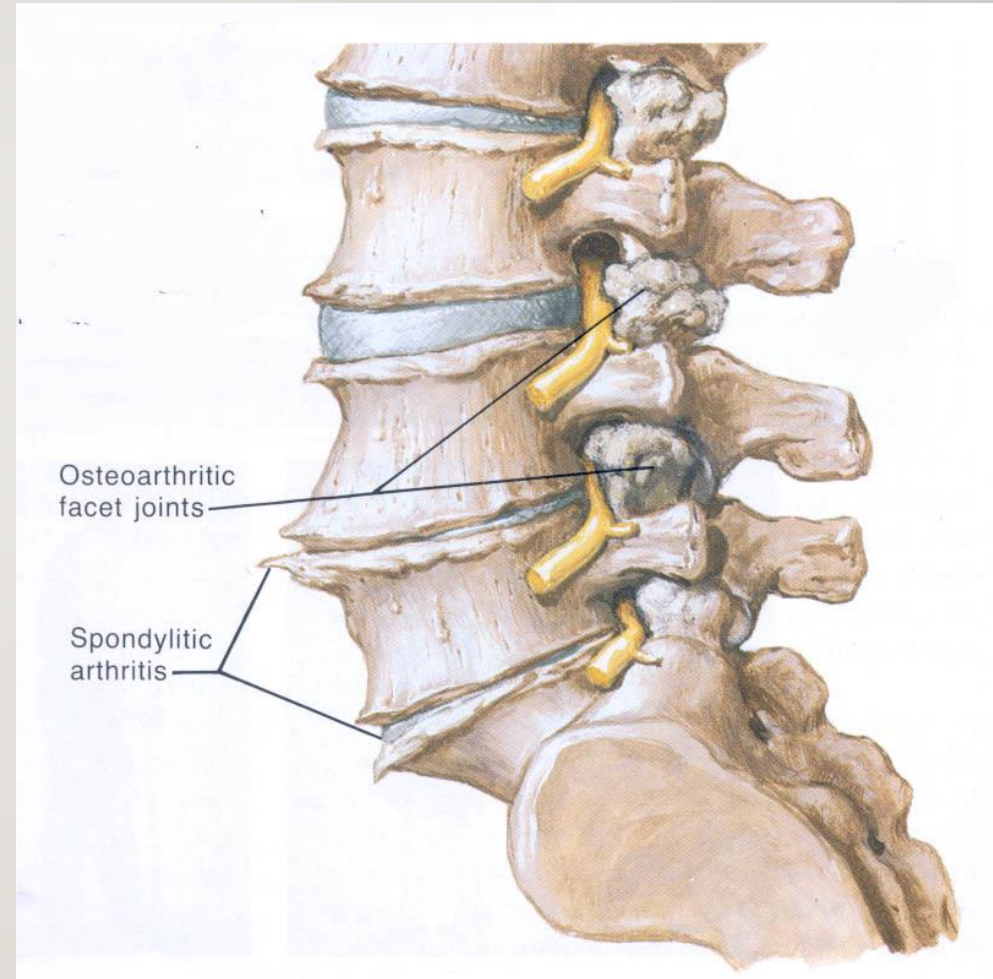
FUSION



RODS AND SCREWS



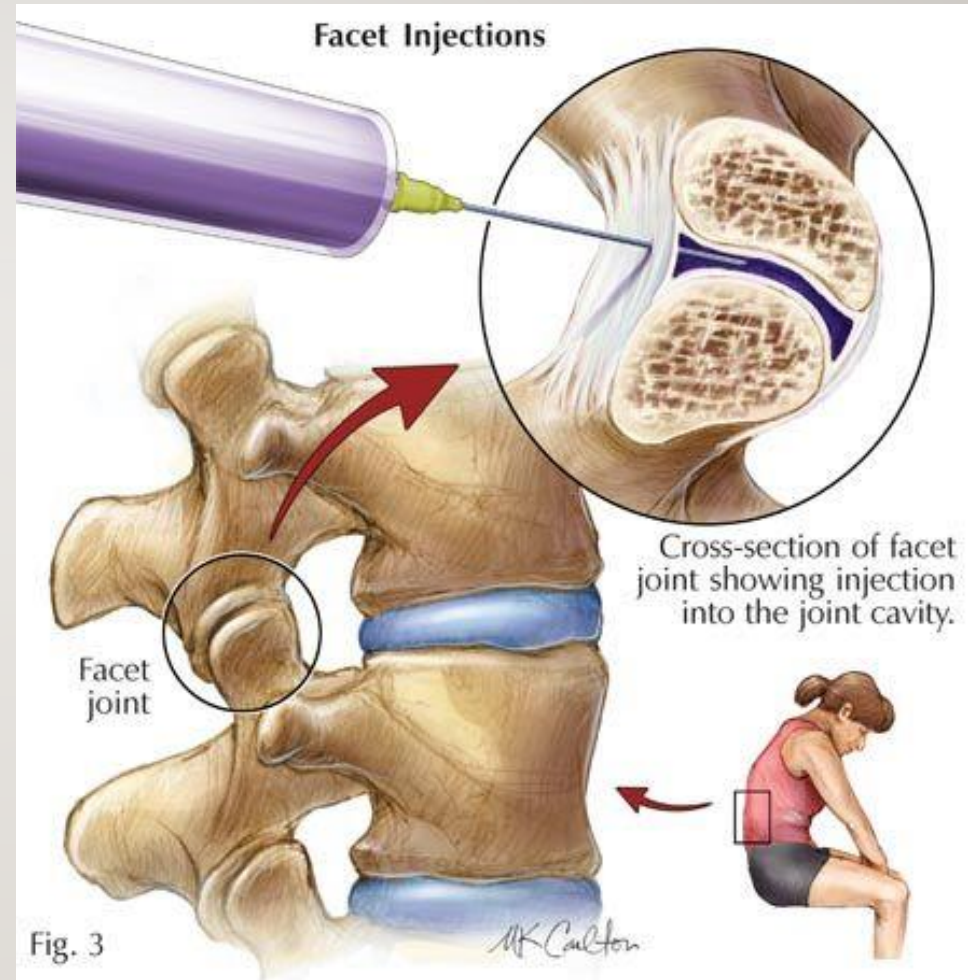
SPONDYLOSIS



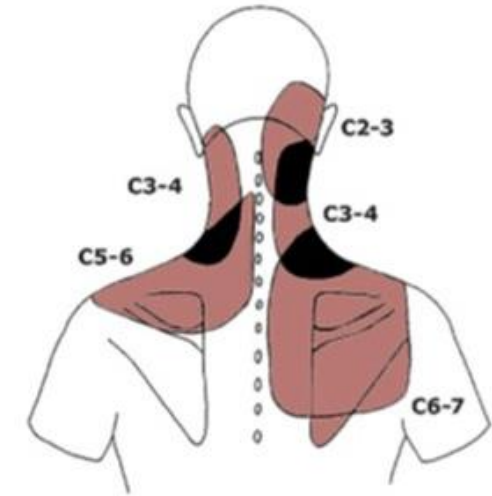
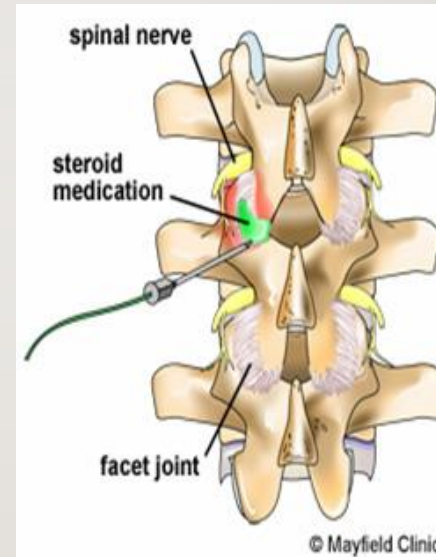
SPONDYLOSIS MRI SCAN



FACET JOINT

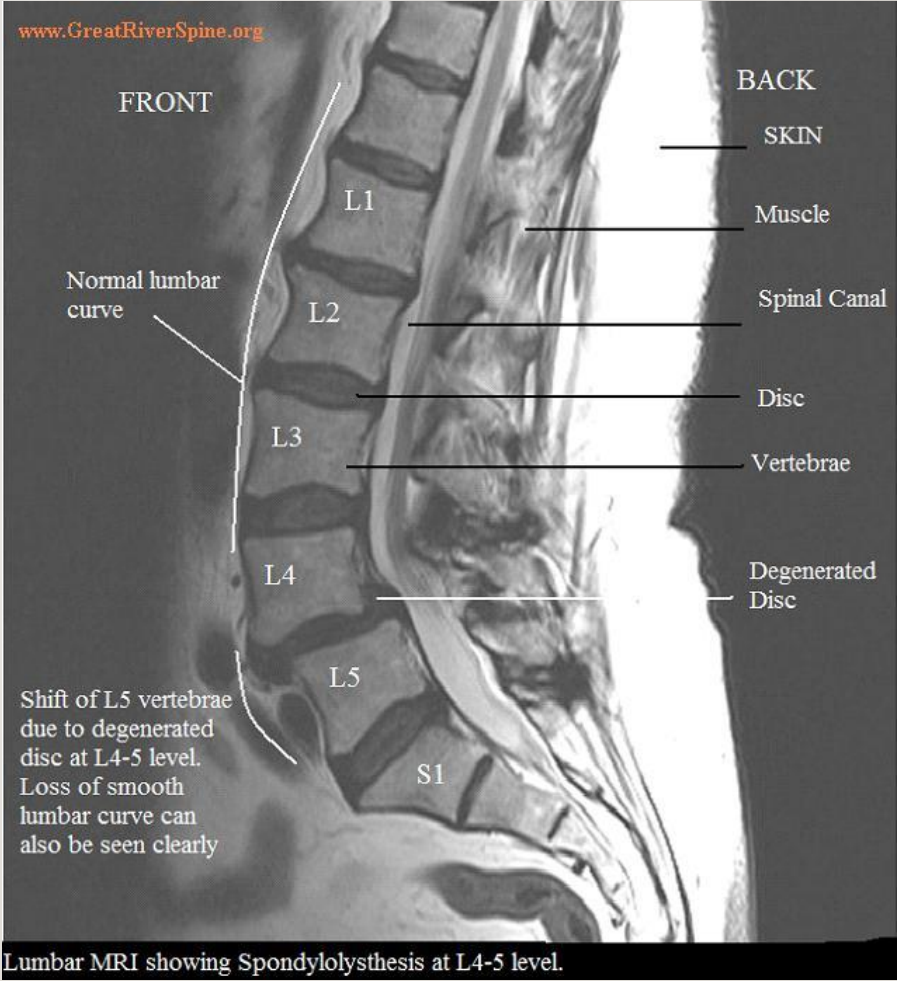


FACET JOINT INJECTION

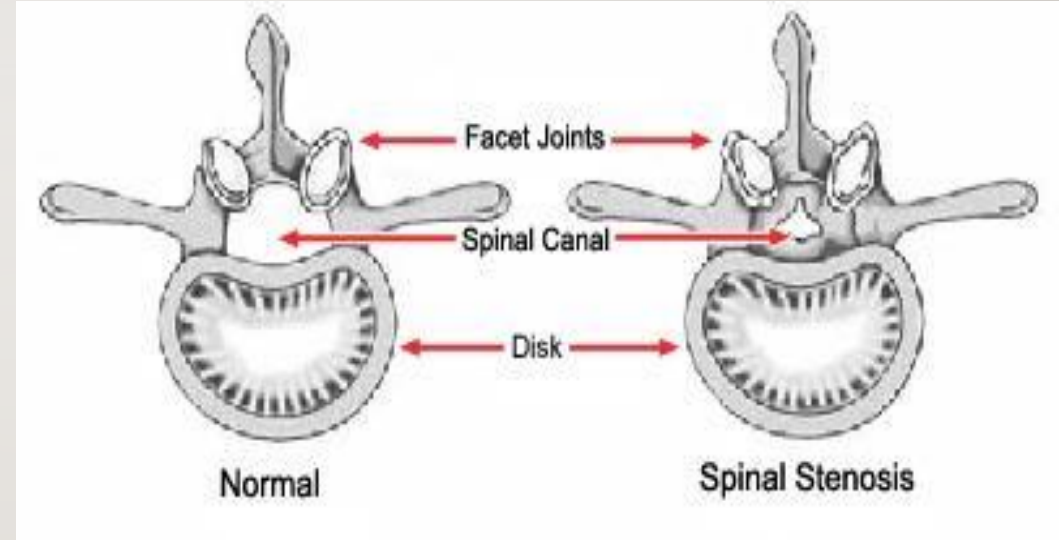


Cervical Facet pain - Referral pattern

SPONDYLOLISTHESIS



CENTRAL STENOSIS



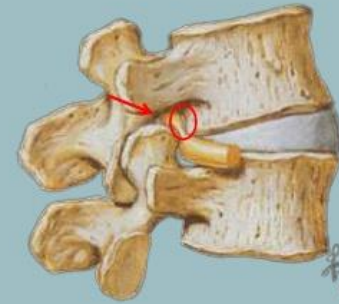
FORAMINAL STENOSIS

Foraminal Stenosis

Foramina in flexion



Foramina in extension



The foramina where the spinal nerve exits the spine opens in flexion and narrows in extension.

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BACK PAIN



POSTURE



WEIGHT



OBESITY





DAILY ACTIVITIES



Ergonomics for desk work

Rotate your screen back all the way so you don't have to look as far downward.

Place a stand under your laptop.



Nod slightly and look downward instead of bending your neck excessively.

Sit tall: Expand your chest and roll your hips forward.

Feet flat on the floor.

Top 7 Tips to Prevent Lower

Back Pain



GOOD POSTURE

The first step is to become aware of your body as when you're holding yourself stiff you instantly recognize the tension in your muscles. Standing or sitting, you should put minimal strain on the muscles of your lower back by preserving the spine's natural curve.



MAKE THE RIGHT MOVES

Lift using your leg muscles, not your arms and back. If you need to pick up something heavy like a grocery bag or a packed suitcase, bend at your knee and lift it, keeping your back straight.



LEVEL OF HEIGHT

Bring your work, food, or book to a position that allows you to keep your eyes straight ahead and your head high, and that does not require you to crane your neck forward.



SLEEP RIGHT

Avoid sleeping on your stomach. When the stomach sags downward, it tends to arch your back, increasing the lumbar curve and your pain.



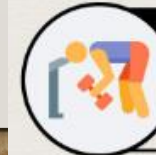
DROP THE LOAD

If you are overweight, try to lose the extra load on your back. Keep at bay the pounds that adds to the strain on your back.



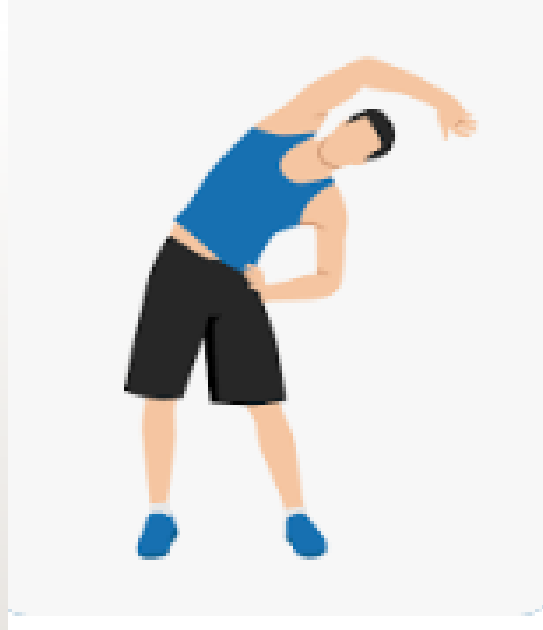
TAKE A BREAK

Don't sit tight, and avoid sitting in a chair for longer than 30 minutes at a time; get up and move around. Don't sit with a flat wallet in your back pocket.



PERFORM BACK STRENGTHENING EXERCISES

If done religiously, these exercises can give your back muscles strength, flexibility and range of motion. Beginners can make use of weight-lifting belts to avoid straining their lower back.



WESTI