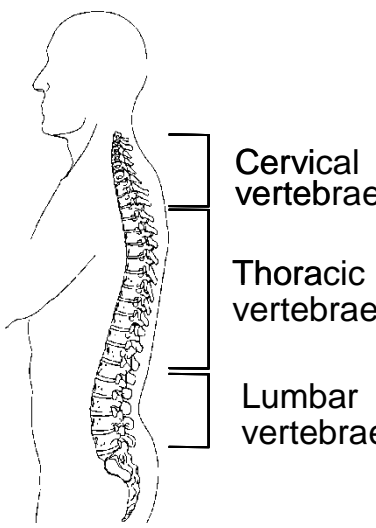


Spine Care

This handout provides information about how to take care of your spine to keep it in a neutral alignment. You want to prevent your spine from rotating. Our spine is made up of vertebrae, ligaments and muscles.

 <p>Spine in neutral alignment</p>	<p>Vertebrae are the bones of our spine.</p> <p>Transverse process is the bony part of each vertebrae. You can feel this as you run your hand along the spine.</p> <p>Ligaments are bands of tissues that connect the bones together:</p> <p>Muscles give us strength!</p>
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Cervical spine	Thoracic spine	Lumbar spine
<ul style="list-style-type: none"> • tight neck muscles: scalenes, SCM • weak rhomboids • headaches • muscles support head - 10 to 12 pounds <p>Forward movement:</p> <ul style="list-style-type: none"> • 15° = 27 pounds • 30° = 40 pounds • 45° = 49 pounds 	<ul style="list-style-type: none"> • less movement – ribs, angle of transverse processes • protects heart and lungs • Parasympathetic Nervous system (PNS) • Sympathetic Nervous System (SNS) 	<ul style="list-style-type: none"> • pelvis, sacro-iliac joint, sacrum, coccyx • hypermobility versus hypomobility of pelvic floor • core stability

Different ways for increasing the normal curve of the spine

1. Body Awareness

Ask yourself these questions:

- How do you hold yourself in sitting? In standing?
- Can you use a mirror/reflected window to see yourself?
- How does how you hold yourself say things to others?
- How do you want to present yourself?

2. Neutral Alignment

Slowly increase the amount of time in a day that you are adding some of these changes:

- Use towel rolls/supports while sitting, standing and lying down.
- Are there different times you could try rolls?
 - While driving or sitting for prolonged periods: use rolls under knees, behind your back — adjust to what feels right, under elbows to decrease the tension on the muscles and decrease the need for neck muscles to be constantly working.
- While sleeping: you want the right mattress for keeping your spine in a neutral alignment. Use rolls, pillows, body pillows, wedged pillows to keep your spine neutral position: you want to try and avoid rotation of the spine.
- Avoid lying on stomach and extreme positions where compression of joints occurs.

- More sleep increases parasympathetic nervous system (PNS) which increases healing and calming signals.
- Increase your movement: take breaks, stretch while sitting or standing, switch hand position



3. Gentle strengthening exercises:

If your pelvic floor muscles are very tight (hypertonic) or very weak (hypotonic) you will eventually need to do very gentle exercises that stabilize the spine.

Core stability exercises strengthen the Transverse Abdominis (TA) and Multifidus muscles.

To do: Lie down on your back and pull belly button to your spine. You can feel that these muscles are working by touching the muscles just below your ASIS-the front bone of your pelvis.

1. Start gently for 3 seconds, progress to 5 seconds and eventually to 10 seconds.
2. Do 3 times, eventually 5 repetitions, and then 10 repetitions.

The goal of these exercises is to do them while you are doing everyday activities such as washing the dishes, standing in line. When you begin you start doing them on your back, then sitting and then standing.

3. What are some proper lifting techniques?

- Keep feet apart
- Exhale
- Bend knees
- Do not twist the body
- Chin up
- Pushing is the best
- Keep objects close to your body
- Lift with legs and not with the back
- Push, pull or slide instead of lifting

5. Stretching and the use of breathing techniques

- Hold your stretch for 15 to 20 seconds. This is about 3 big belly breaths.
- Do self-trigger point release and self-massage techniques using tennis balls or foam rollers while stretching.

6. Gait (walking) pattern

- Be aware of how you are walking. Changes to walking pattern - take time.
- Would the use of a cane/walker be helpful?

7. Lose weight

- It can be a challenge to lose weight since the calories we eat are often more than the calories we use or burn.
- Try to fit activity and movement throughout the day as well as decreasing or changing the calories you eat.

8. Orthotics for shoes

- Wearing orthotics in your shoes support the normal curves of your foot and allow for more distribution of the natural pressures and forces with walking.

Goal setting

Think about 1 thing you have learned in class today that you could start using? Keeping in mind that **change takes time!!**

Ask yourself:

- “Is it realistic goal?”
- “Are there barriers that prevent me achieving this goal?”
- “How confident am I to do this goal on a scale from 0 to 10?”

0	1	2	3	4	5	6	7	8	9	10
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Score 0 means no confidence and 10 means total confidence.
