

ABS & LOWER BACK CHALLENGE

Well Done all! You sure all have improved your strength in the mid section!
 Always exercising those muscles in your belly, mid and lower back and hips.
 Remember: "Strong core muscles, strong back"

**Craig Shute, Eric Tsui, Manson Fok, Mark Christal, Mark Hart, Stephen Cheng
 Amy Yuen, Angela Ho, Catherine Fok, Cecilia Tsang, Eilie Fong, Fiona Shum,
 Janice Tsui**

WHOLE BODY GLIDING CHALLENGE

For the coming two months, we have come up with a really fun challenge for everyone! All you need is two towels and the below exercises will make you sweat hard! **Get ready, set and glide!**

- **Shoulder Scissor**
- **Plank & Single leg glider**
- **Reverse Lunges & Slide**

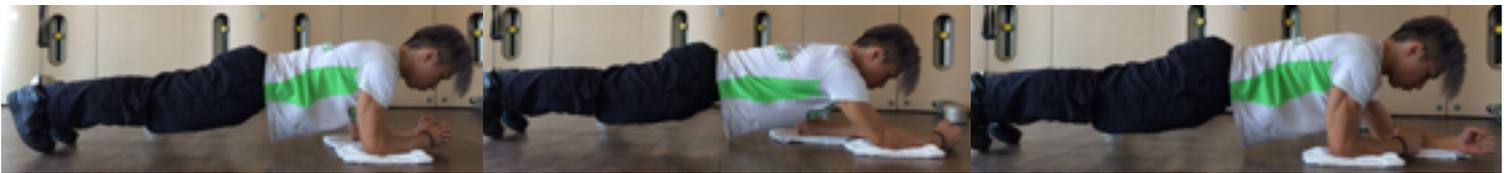
Day 1 8 10 12	Day 2 rest	Day 3 10 12 14	Day 4 rest	Day 5 12 14 16	Day 6 rest	Day 7 rest
Day 8 14 16 18	Day 9 rest	Day 10 16 18 20	Day 11 rest	Day 12 18 20 22	Day 13 rest	Day 14 rest
Day 15 20 22 24	Day 16 rest	Day 17 22 24 26	Day 18 rest	Day 19 24 26 28	Day 20 rest	Day 21 rest
Day 22 26 28 30	Day 23 rest	Day 24 rest	Day 25 rest	Day 26 28 30 32	Day 27 rest	Day 28 rest
Day 29 rest	Day 30 30 35 40					



Shoulder Scissor

- On the ground, get into a plank position and have your forearms on a folded towel
- While holding the plank, extend one arm forward (until elbow is 45° angle) and then slide back, perform the same on the other arm and then repeat alternatively

*For beginners, perform on knees



Plank & single leg glider

- On the ground, get into a plank position and have your toes on a folded towel
- While holding the plank, slide one leg out to the side (45° angle). Keep the sliding leg straight
- Return the leg to the starting position and slide to the other leg out and repeat alternatively



Reverse lunges & slide

- Stand with both legs together and with one foot standing on a folded towel
- Have your hands on the hip or holding to a stable handle/wall, slide the foot (with the towel) back and perform a lunge
- Return to the starting position and repeat



IT DOESN'T CHALLENGE YOU. IT DOESN'T CHANGE YOU.

Health Journal Oct 2014

Spinal Anatomy and Neck & Back Pain

Spinal anatomy is a remarkable combination of strong bones, flexible ligaments and tendons, large muscles and highly sensitive nerves. It is structured to be incredibly strong, protecting the highly sensitive nerve roots, yet highly flexible, providing for mobility on many different planes and movement.

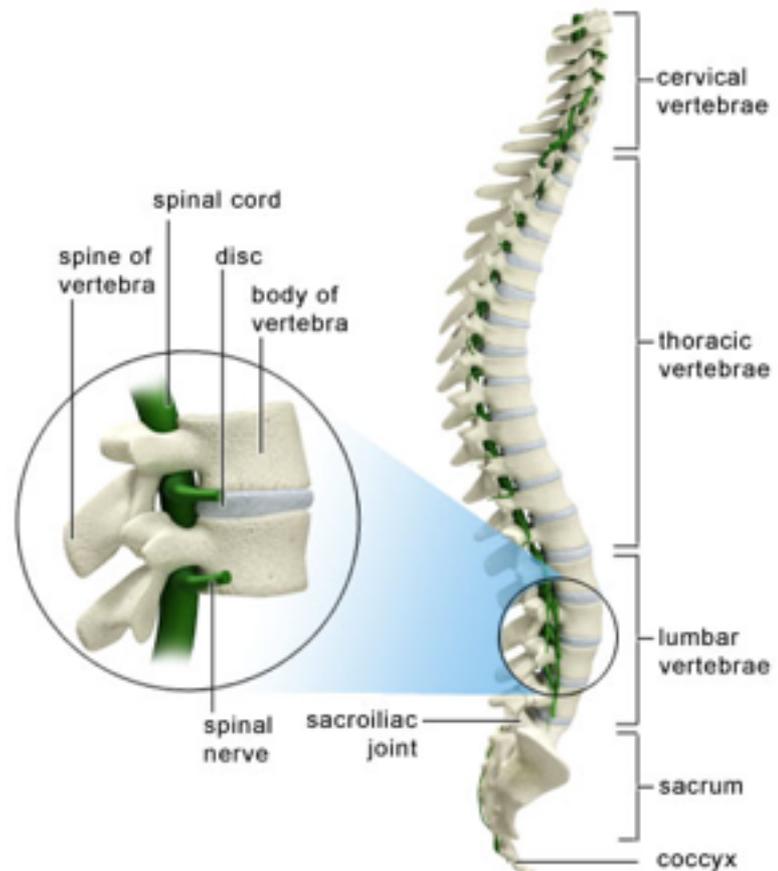
Most of us take this strength, structure and flexibility for granted in our everyday lives, until something goes wrong. Once we have back pain, we're driven to know what's wrong and what it will take to relieve the pain and prevent a recurrence.

Lateral View of Spinal Anatomy (from top to bottom)

- C**ervical vertebrae (neck) (C1-C7)
- T**horacic vertebrae (upper and mid back) (T1-T12)
- L**umbar vertebrae (lower back) (L1-L5)
- S**acral Region (sacrum and coccyx) (S1)

Common cause of back pain

- The large nerve roots that go to the legs and arms are irritated
- The smaller nerves that innervate the spine are irritated
- The large paired back muscles (erector spinae) are strained
- The bones, ligaments or joints themselves are injured
- The disc space itself is a source of pain



Cervical Spine (neck)

The neck supports the weight of the head and protects the nerves that come from the brain to the rest of the body. This section of the spine has seven vertebral bones that get smaller as they get closer to the base of the skull. Most of the rotation of the cervical spine comes from the top two segments, whereas most of the flexion/extension movement comes from C5-C6 and C6-C7.

Common Pain Issue

Acute neck pain is most often caused by a muscle, ligament or tendon strain (such as from a sudden force or straining of the neck), and will usually heal with time and non-surgical treatments to alleviate the neck pain (such as ice and/or heat, massage therapy, medications, chiropractic or osteopathic manipulation). For neck pain that lasts longer than 2 weeks to 3 months, or with mainly arm pain, numbness or tingling, there is often a specific anatomic problem. For example, pain that radiates down the arm, and possibly into the hands and fingers, is usually caused by a cervical herniated disc or foraminal stenosis pinching a nerve in the neck. Treatment options for neck pain will differ depending on the specific diagnosis.

Thoracic Spine (upper back)

The 12 vertebral bodies in the upper back make up the thoracic spine. The firm attachment of the rib cage at each level of the thoracic spine provides stability and structural support to the upper back and allows very little motion. The thoracic spine is basically a strong cage and it is designed to protect the vital organs of the heart and lungs.

Common Pain Issue

The upper back is not designed for motion, and subsequently, injuries to the thoracic spine are rare. However, irritation of the large back and shoulder muscles or joint dysfunction in the upper back can produce very noticeable back pain.

Lumbar Spine (lower back)

The lower back has a lot more motion than the thoracic spine and also carries all the weight of the torso, making it the most frequently injured area of the spine.

Common Pain Issue

The motion in the lumbar spine is divided between five motion segments, although a disproportionate amount of the motion is in the lower segments (L3-L4 and L4-L5). Consequently, these two segments are the most likely to breakdown from wear and tear (e.g. osteoarthritis). The two lowest discs (L4-L5 and L5-S1) take the most strain and are the most likely to herniate. This can cause lower back pain and possibly numbness that radiates through the leg and down to the foot (sciatica).

The vast majority of lower back pain are caused by muscle strain. Even though a muscle strain doesn't sound like a serious injury, trauma to the muscles and other soft tissues (ligaments, tendons) in the lower back can cause severe back pain. The good news is that soft tissues have a good blood supply, which brings nutrients to the injured area, facilitates the healing process and often provides effective relief of the back pain.

Sacral Region (bottom of the spine)

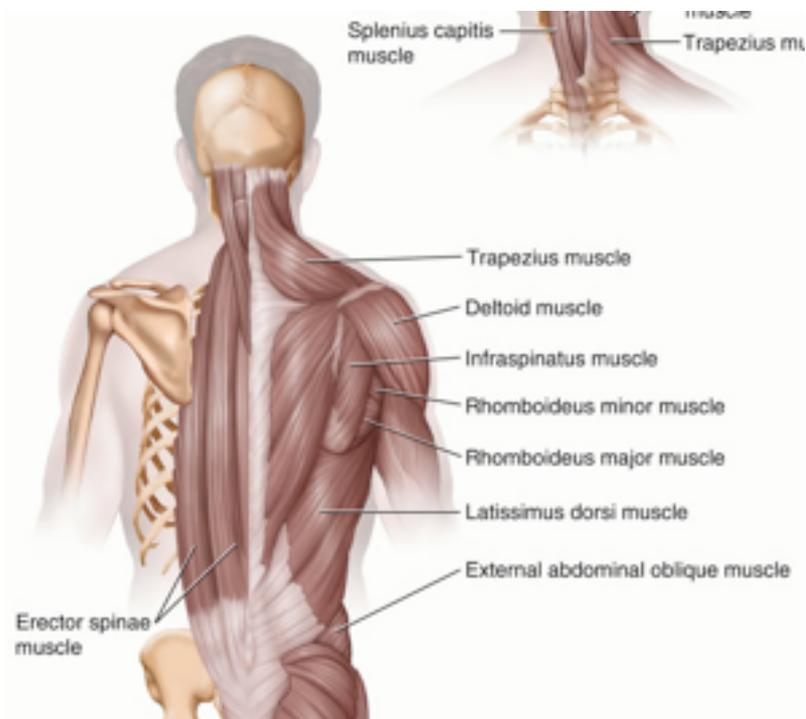
Below the lumbar spine is a bone called the sacrum, which makes up the back part of the pelvis. This bone is shaped like a triangle that fits between the two halves of the pelvis, connecting the spine to the lower half of the body.

Common Pain Issue

The sacrum is connected to part of the pelvis (the iliac bones) by the sacroiliac joints. Pain in the sacrum is often called sacroiliac dysfunction, and is more common in women than men. The coccyx - or the tailbone - is in the sacral region at the very bottom of the spine. Tailbone pain is called coccydynia, which is more common in women than men.

Back Muscles

- Three types of back muscles that help the spine function are extensors, flexors and obliques.
- The extensor muscles are attached to the posterior (back) of the spine and enable standing and lifting objects. These muscles include the large paired muscles in the lower back (erector spinae), which help hold up the spine, and gluteal muscles.
- The flexor muscles are attached to the anterior (front) of the spine (which includes the abdominal muscles) and enable flexing, bending forward, lifting, and arching the lower back.
- The oblique muscles are attached to the sides of the spine and help rotate the spine and maintain proper posture.



In next month health journal, we will discuss more on how exercise can strengthen our back muscles to prevent pain and injuries, also find out which type of sports therapy can help us to reduce the tension in tight back muscle.