



Welcome to Pilates Sunshine
with Maria Gonzalez

www.pilatessunshine.com

You should not attend the class if you have any COVID-19 symptoms.

The participant must take reasonable precautions in regards to their participation in the class to ensure the safety of those surrounding them, including COVID-19 rules, Eg. Social distancing, wear a mask and hand sanitising.

Anyone can do Pilates regardless of age, fitness level or gender. Pilates not only focuses on building your core strength, it also helps you to strengthen the rest of your body and improves your posture, mobility and flexibility through a series of low repetition low impact stretching and conditioning exercises.

It is recommended that you wear loose comfortable clothing when doing Pilates.

Please fill out the following form.

Place: _____ Time _____ Course start date: _____

Name: _____ Contact Number: _____

Email address: _____

Pregnancy in the last 6 months? _____

Do you have a prolapse or incontinency issues? _____

Do you have any history of heart disease within your family? _____

Do you suffer from high blood pressure (140/90 mmHg) and has this been confirmed with measurements on two separate readings? _____

Any recent back injuries or surgery in past year, or if you have any other health issue, please indicate: _____

Any injuries of the neck, shoulders, knees, hips or wrists. If yes, please indicate: _____

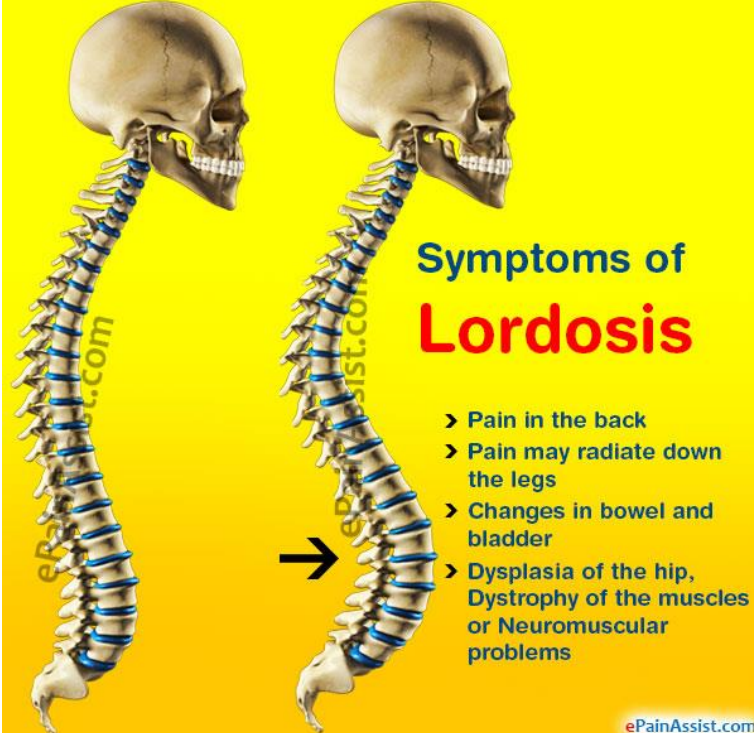
If you have suffered with back or neck problems, have you been advised to do Pilates from GP, Chiropractor, Physiotherapist, Osteopath? If yes, please enter their name and practice:

I hereby undertake to do Pilates Sunshine class at my own risk and have made the instructors MARIA GONZALEZ aware of my existing injuries or relevant conditions and by signing this form I will not hold Maria Gonzalez or any other support or substitute instructor, liable or responsible for any personal injury damage or loss of possessions.

Name: _____ Signature _____ Date ____/____/____

Normal

Lordosis



Lordosis:

Long and Weak muscles, these muscles need to get stronger.



Lordosis, also known as **swayback**, is a condition in which the spine in the lower back has an excessive curvature. The spine naturally curves at the neck, upper back, and lower back to help absorb shock and support the weight of the head. Lordosis occurs when the natural arch in the lower back, or lumbar region, curves more than normal. This can lead to excess pressure on the spine, causing pain.

People with lordosis often have a visible arch in their lower backs. When looking at them from the side, their lower backs form a defined "C" shape. In addition, people with swayback appear to be sticking out their stomachs and buttocks.

The easiest way to check for lordosis is to lie on your back on a hard surface. You should be able to slide your hand under your lower back, with little space to spare. If you have lordosis, you will have extra space between your hand and your low back.

Common Causes of Lordosis

Often, lordosis appears in childhood without any known cause. This is called benign juvenile lordosis. However, lordosis can affect people of any age. Other potential causes of lordosis include:

- .poor posture
- .obesity
- .osteoporosis (weakening of the bones with age)
- .discitis (a disorder of the disks between the spinal vertebrae)
- .kyphosis (an excessive outward curvature at the mid-back)
- .spondylolisthesis (a condition in which one vertebra slips forward or backward relative to the next vertebra)

Much of our flexibility, mobility, and activity depend on the health of the spine. Getting treatment to help correct the curvature can help prevent complications later in life, such as arthritis and chronic back pain.

Good body alignment

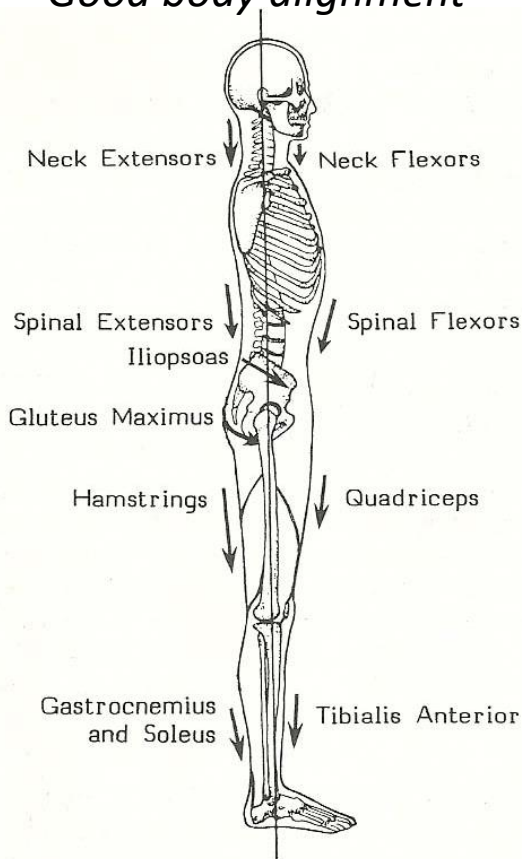


Figure 4.1. The major antigravity muscles that maintain the erect position.

Kyphosis is curvature of the spine that causes the top of the back to appear more rounded than normal.

Everyone has some degree of curvature in their spine. However, a curve of more than 45 degrees is considered excessive.

Sometimes kyphosis doesn't cause any symptoms other than the back appearing abnormally curved or hunched. However, in some cases the condition causes:

- [back pain](#) and stiffness
- tenderness of the spine
- tiredness

Back pain can be particularly problematic in adults with kyphosis because the body has to compensate for the spinal abnormality.

If you have severe kyphosis, your symptoms may get worse over time. You may also have difficulty breathing and eating.

What causes kyphosis?

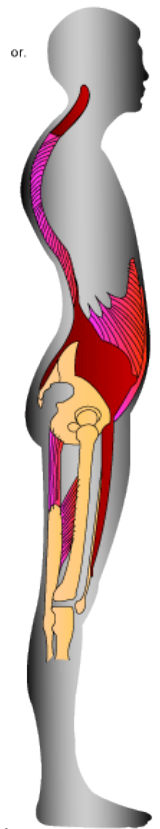
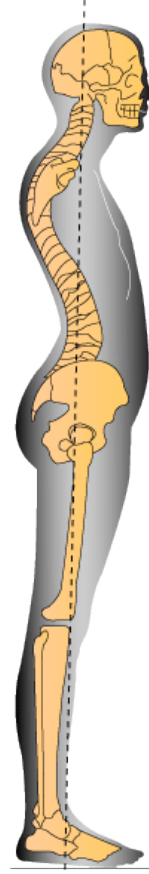
In kyphosis, the normal curve in the middle section of vertebral column (the thoracic vertebrae) is more curved than normal. There are a number of reasons why this might happen, including:

- poor posture (postural kyphosis) – slouching, leaning back in chairs and carrying heavy bags can stretch supporting muscles and ligaments, which can increase spinal curvature
- abnormally shaped vertebrae (Scheuermann's kyphosis) – if the vertebrae don't develop properly, they can end up being out of position
- abnormal development of the spine in the womb (congenital kyphosis) – if something disrupts the spine's normal development, two or more vertebrae sometimes fuse together
- age – as people get older, their spinal curvature can be expected to increase
- Kyphosis can also develop as a result of a spinal injury.

Can kyphosis be prevented?

Postural kyphosis can be prevented by being aware of your posture and by taking care of your back. You should encourage yourself to:

- .avoid slouching
- .[Sit correctly](#) – sit upright, ensuring that the small of the back is supported
- .Avoid carrying heavy bags that can pull on the back muscles and ligaments; the best bags are well-designed backpacks
- .Take [regular exercise](#) (see below) to help strengthen the back and keep it flexible; activities such as [swimming](#), [walking](#), [Pilates](#) and [Yoga](#) are ideal for helping to prevent back problems.



What happened with your spine and other bones in your body?

Head:

Forwards

Neck:

Increase curve

Scapulae:

Abducted

Thorax:

Increased (kyphosis)

Hips:

Flexed

Pelvis:

Forwards (Anterior Pelvic tilt)

Knees:

Slightly hyperextended

Feet:

Slightly planter flex.

What happen to your muscles?

Short and Tight:

Neck extensors and hip flexors.
The low back is tight.

Neck extensors

Hip flexors

Lower back.

(These muscles need to be stretch)

Lengthened and Weak:

.Neck flexors

.Upper back

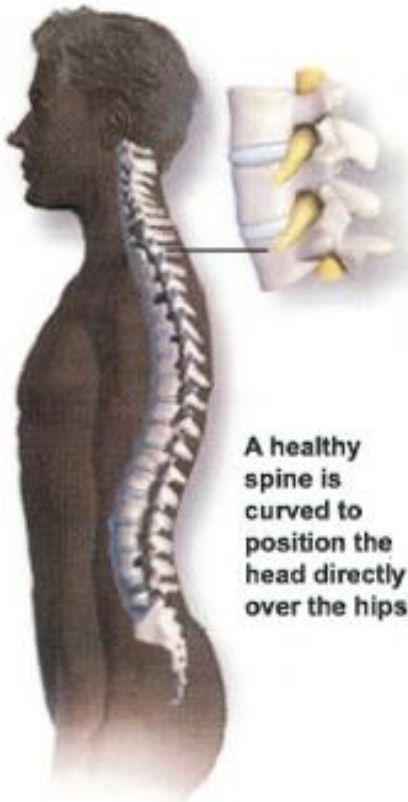
.Erector spinae

.Hamstrings

.Possibly abdominals

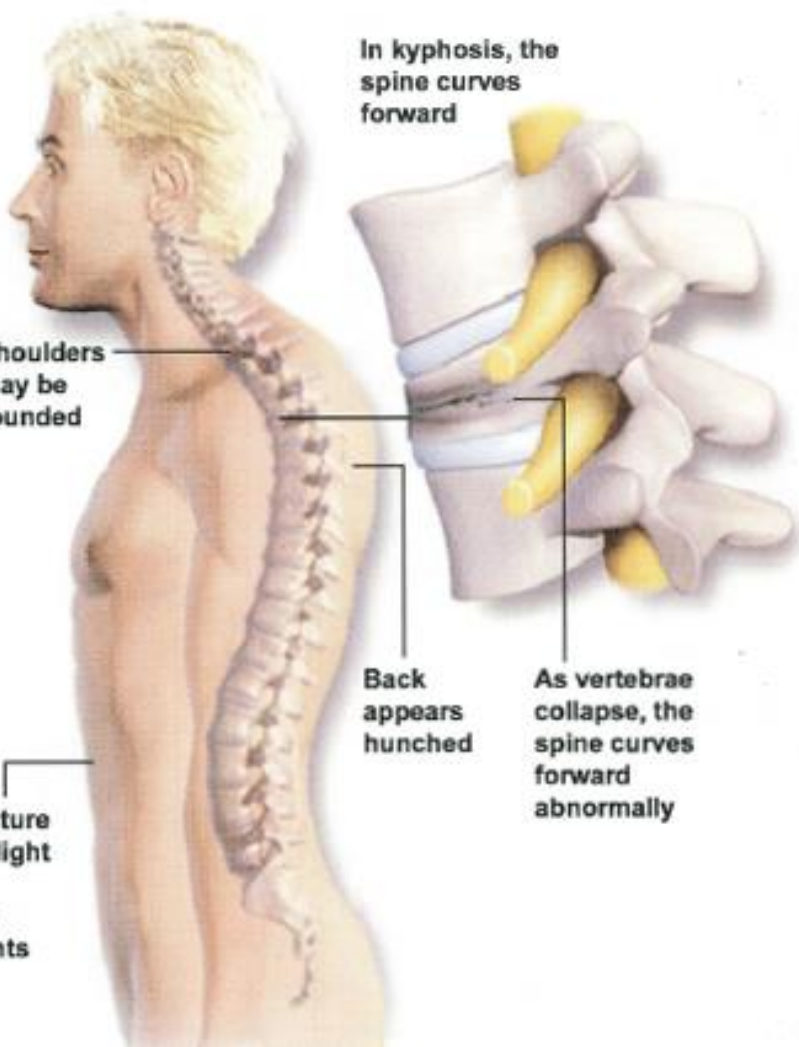
(These muscles need to get stronger)

HEALTHY SPINE



A healthy spine is curved to position the head directly over the hips

SPINE AFFECTED BY KYPHOSIS



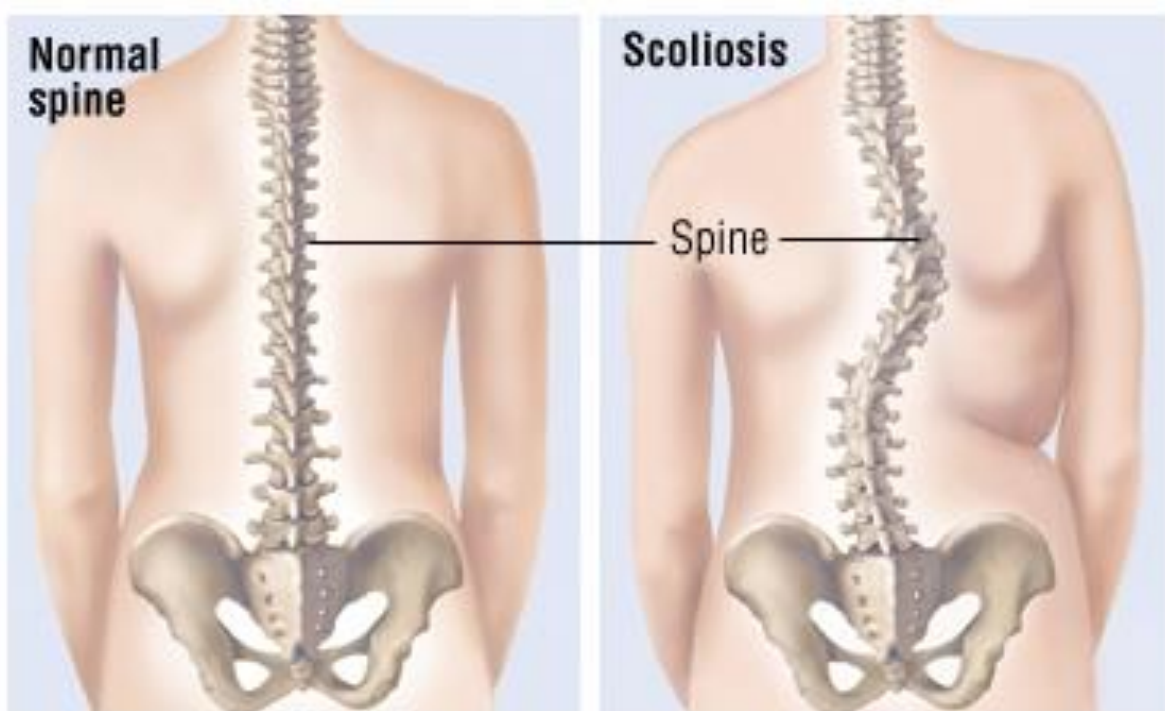
Shoulders may be rounded

In kyphosis, the spine curves forward

Back appears hunched

As vertebrae collapse, the spine curves forward abnormally

Abnormal posture can cause a slight curvature by loosening the spinal ligaments



Scoliosis is when the spine curves to the side. The spine can also twist at the same time. This twisting can pull the ribcage out of position. It is important that a person with scoliosis sees a scoliosis specialist.

Scoliosis can affect people at different points in their lives. It can happen:

- .Before birth (congenital)
- .In young children (early onset),
- .In older children and teenagers (adolescent idiopathic)
- .As adults (degenerative or de novo).

In most cases the cause is unknown (*idiopathic*). Sometimes the scoliosis is because of a neuromuscular condition, such as muscular dystrophy or cerebral palsy. Scoliosis can also develop as part of a syndrome, such as Marfan syndrome.

What can happen to your spine and other bones in your body?

Scoliosis can affect a person's appearance because when the spine bends to the side, the small bones that make up the spine (called *vertebrae*) can become twisted. The twisted *vertebrae* can pull the ribs round with them, which sometimes causes a lump to form on the person's back or for their back to appear rounded. Other possible signs of scoliosis are a shoulder blade that sticks out or an uneven waist.

The spine can curve to the left or the right. The curve can happen in different parts of the spine. It might be in the chest area, which is called 'thoracic' scoliosis. It might be in the lower, 'lumbar' area of the spine. A large thoracic curve can affect how well the lungs work.

Sometimes there are two curves and the spine may look like an S shape from behind. This is called a 'double curvature'. When the curve is S-shaped a person's spine can appear quite straight because the two curves cancel each other out.

Most cases of scoliosis should be checked regularly by a scoliosis specialist

Spotting and treating a curve early may allow a patient to try non-operative treatment like bracing. If curves are discovered late, when they are already severe, treatment can be more difficult and sometimes work less well. It is important that if you, or your child, are found to have scoliosis you ask your GP for a referral to a scoliosis specialist as soon as possible. A specialist will be able to assess the curve. They will tell you how big it is and discuss the best treatment options.

Flat Back

What happened to your bones?

Head:

forward position

Neck:

Slightly extended

Chest/Thorax:

Flattened

Lower Back:

Flattened

Pelvis:

Tilted back
(posterior pelvic tilt)

Hips:

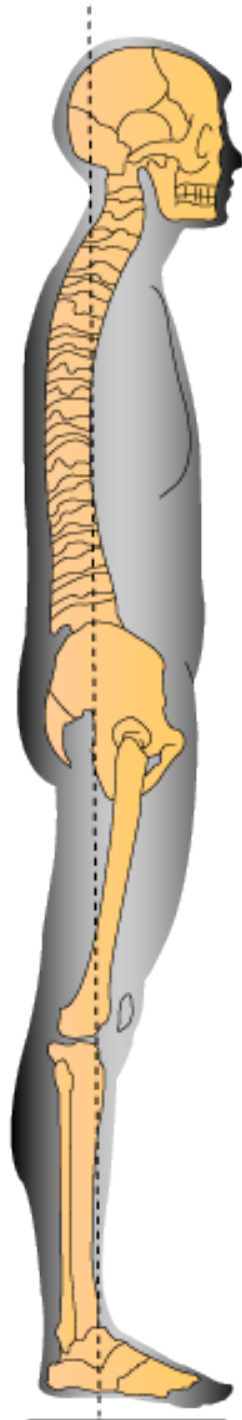
Positioned forward
and extended.

Knees:

Hyper extended

Feet:

Generally neutral



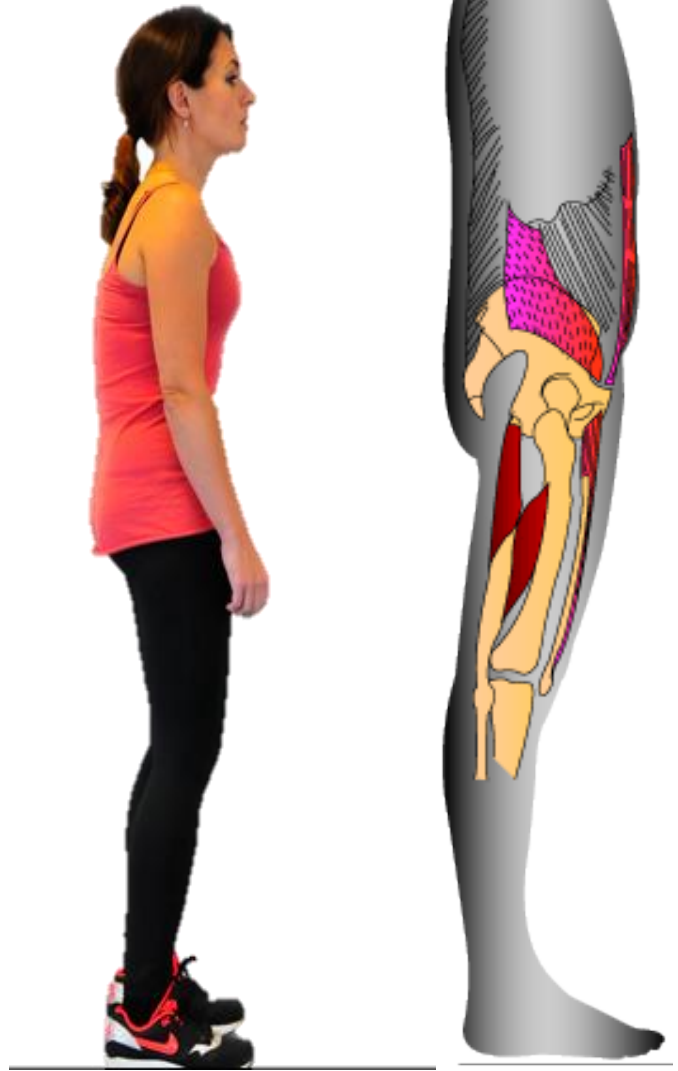
What happen to your muscles:

Lengthened and Weak:

Hip flexors

Shortened and Tight:

.Hamstrings
.Abdominals to a
certain degree.



Flat back means your pelvis is tucked in and your lower back is straight instead of naturally curved, causing you to stoop forward. People with a flat back often find it difficult standing for long periods.

This posture is often caused by muscle imbalances, which encourage you to adopt such a position. Spending long periods sitting down can also contribute to a flat back. A flat back also tends to make you lean your neck and head forwards, which can cause neck and upper back strain.

Exercises to strengthen your core, buttocks, neck and rear shoulder muscles and back extensions are recommended to help correct a flat back.

Exercises to correct a flat back:

Plank
Side-lying leg raises
Chest stretches
Back extensions