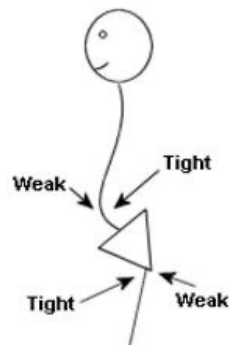


Lordosis is the normal curve in the lower back (lumbar spine). Hyperlordosis is an exaggerated lumbar curve. The spine does need some lumbar curve to function correctly – so you are not looking to achieve a ‘flat’ back.



Causes of hyperlordosis



Some muscles around the pelvis and spine become tight and shortened, and some become weak and lengthened, causing an imbalance.

The muscles that are often tight and shortened are:

The muscles involved in extending the spine and the muscles involved flexing the hip. These muscles may require stretching and lengthening.

The muscles that are often weak and lengthened are:

The muscles involved in flexing and rotating the spine aka the abdominal muscles (rectus abdominus, internal and external obliques) and the muscles used to extend the hip (hamstrings and gluteus maximus). These muscles may need to be strengthened and not ‘stretched’.

In addition to the excessive lumbar curve, other characteristics of this 'lordotic' posture include:

- Anterior pelvis tilt – i.e. pelvis tilted forward



- Rib cage flared forward
- Hyperextension of the knees during standing



So when it comes to Pilates exercises, the focus can be to:

1. Improve abdominal strength and counteract abdominal lengthening
2. Stretch out the hip flexors and front thigh muscles
3. Stretch out the muscles of the back
4. Improve thoracic mobility and scapular stability

1-3 should help with the anterior pelvic tilt.

4 should help with rib flare

Examples of exercises that can assist with hyperlordosis may include

1. The Hundred (modified*)
2. Spine Stretch
3. Saw
4. Pelvic Tilting

Caution

Because one of the features of hyperlordosis can be weak abdominal muscles it's important to build up gradually. Exercises which required a strong abdominal connection to maintain safe and effective technique should be modified. For example, Double Leg Stretch and Teaser. And in order to build that required strength in the abdominal area try seated exercises like Half Roll Down or Obliques Roll Down, or supine exercises with the legs in Table Top, or knees bent.

If the glutes are weak then exercises like Bridge might be helpful



Leg pull can also be used to strengthen the glutes – pay attention to maintaining control of the lumbar spine. Don't kick the leg high as this will exaggerate the hyperlordosis.



Exercise Focus for Lordosis

- Pelvic Curls: finding the transverse abdominus and emphasising spinal articulation and hamstring control. Focusing on 'connecting' the navel down towards the spine. Although for most clients it is not advocated to press the lower back into the floor whilst performing pilates exercises, this movement and articulation of the spine can be helpful for some people with lordosis.
- Chest Lift with rotation: to target and strengthen the obliques whilst maintaining "navel-to-spine"
- Single Leg Lifts: Focus on connecting the navel to the floor whilst lifting the leg. Imagine a rope attached to knee from the navel. When the navel lowers, the knee rises and vice versa. Progress by starting with a bent leg.

- Roll Up: focus on spinal articulation and feel the lumbar spine against the mat, while rolling up and down. This might be very challenging if the lordosis is very pronounced.
- As the abdominals need to build strength and endurance some exercises can be performed for longer periods of time with adaptations to allow safe performance over extended periods. Focus should always be on quality of movement and stability of the body. Pay particular attention to lumbar control and spine to mat connection especially in long lever positions (extended arms and legs).

Stretches (make sure you are warmed up before stretching)

Hip flexor stretch

This will stretch the hip flexor (iliopsoas), the most powerful hip flexor.



Make sure the body is warmed up. Assume the position as shown and gently push the hips forwards, keeping the back upright until you feel a stretch. Hold for 20-30 seconds, repeat 3-5 times, several times a day.

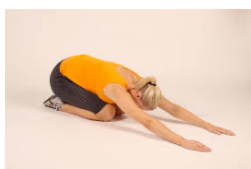
Lower back stretch



Lie on your back and pull the knees in towards you until you feel a stretch in the glutes/lower back.

Hold for 20-30 seconds and repeat 3-5 times, several times a day.

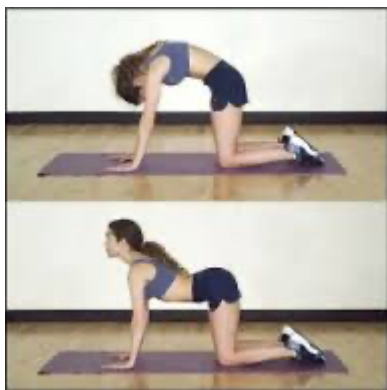
Child's pose is an alternative:



Start by performing 2 sets of 10 reps and gradually increase towards 3 sets of 20.

BUT both of these may also lengthen the glutes which might not be helpful for lordosis.

Cat/Camel might be another option with the focus on the lumbar area of the spine



When working to correct lordosis a general rule of thumb could be to avoid exercises which mimic or exaggerate your lordotic curve, such as:

