Rheumatology Clinic—Dr Fahim Khan. FRCP,FACP Consultant Rheumatologist. www.arthritisandpainclinic.com

Simple back exercises

One very powerful way of controlling your back pain is to do daily range of motion exercises, putting your back through full movement several times a day. This prevents stiffness developing and stretches all the attached muscles, making them less vulnerable to sudden demands.

Please note that exercises can make your pain worse as well as better so please consult the <u>simple exercise guidance</u> before getting on with them. If you have any doubts, please consult your physio, other manual therapist or medical practitioner.

These exercises are meant to maintain range of motion or regain loss of movement in the back region and to help control pain. Regular performance of movements can help with pain problems.

They are simple and not magical in any way. However, with regular performance, you should find your problems are improved. If you have long term back pain with some disability these exercises may help mobility but may not be very effective against pain.

Do each movement slowly five times, resting a short time in between each set of movements. Do two or three times a day although more often can be useful. You can increase the numbers over time as you get more confident.

One leg to chest

Lie on your back with your legs straight out. Bend one leg up, pulling your knee up towards your chest with your hands. Alternate sides. Try and keep the other leg down as you pull your leg up to the chest. Hold the position for a few seconds at the top of the movement.



Knee rolling

Lie on your back with your knees bent up and feet flat on the surface.

Keep your knees together and roll them steadily from side to side. If you have a lot of mobility you may be able to get your leading knee to touch the surface.

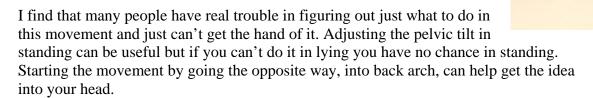
Often you will not be able to allow a large movement initially as it may be uncomfortable, so keep a smooth and gentle motion going within your comfort zone.

There is very little rotation in the lumbar spine but nevertheless this movement is often uncomfortable in the low back and can be useful as part of your exercise programme.



Pelvic tilting

Lie on your back with your knees bent up and feet on the surface. Start by tilting your pelvis a little so your back arches a bit. This picture shows her arching her back rather a lot and you may not need to try and go this far in your own exercise.



Now press the small of your back down to the surface and tuck your bottom under. Do not lift your buttocks up, this is a forward and back rocking motion and often tricky to get right. You should feel the small of your back has pushed down against the surface. If put your hand under your back when you arch slightly you will feel the pressure as you tilt correctly in the opposite direction. When you get good at this you can use it to control the amount of pelvic tilt you have in your back in standing and to perform the core stability exercises which are thought to play such an important part in back pain related problems these days.



Hip hitching

Lie on your back with your legs out straight. Shorten and lengthen each leg alternately, pulling up each side above the hip bones. Do this slowly and smoothly, it can be quite aggravating for the back if you go at it too hard and jerkily.

This exercise is really done from the waist, pulling the pelvis up at each side whilst keeping the knees straight. It's easy to let the knees bend then this becomes a leg exercise and not a back one. It feels a bit strange and can be a little severe on the back joints so it's good to go easy. Some people jerk it strongly and I recommend you develop a smooth, easy rhythm for best results.



This pushes and pulls at the range of movement of the small facet joints at each side of the back and can be useful for reducing stiffness in particular.

Both knees to chest

Lie on your back, bend one knee and hold on with the same hand then do the same with the other leg. Pull both legs up towards the chest, gently at first. **NB If you have a recent disc problem this can make you worse. If in doubt, get advice.**

This exercise can feel very stretchy at first as many of us do not flex our lumbar spines fully in normal life. You may not be able to get your knees up as far as she can but that doesn't matter to start with. Go as far as you easily can and you will see improvement steadily with time.

Back arching

Lie on your front. Get up so you are resting on your forearms, as if you are lying on the beach and looking out to sea, then lie down again.

If you find this difficult you might need to start by just lying on your front for a short period of time for your back to get used to being in extension of some degree.



Your back and hips should be relaxed as you let them go and remain where they want. The only work you are doing is supporting your upper body weight with your arms and shoulders.

Standing exercises

If you have a long term problem and wish to keep spinal mobility it can be useful to do movements when you may not be willing or able to go somewhere to lie down.

Forward bending

Yes! This is not a dangerous movement and is important to maintain as many of the normal things we do in life require it.

Slowly bend over as if you are trying to touch your toes, then return to the vertical. Don't bounce, push or hold, just do a smooth movement.

Don't worry if you do not get anywhere near your knees, it doesn't matter at all. Regular use of this movement can be very useful to maintain a healthy back as it is one we tend to avoid, especially if we have had back pain problems in the past.



Side bending

Stand with your hands against the sides of your thighs. Slide one hand down the same thigh, bending to that side and avoiding any twisting, as if you are stuck between two panes of glass.

Do to one side, then give yourself a short rest before doing the other. I find it unpleasant if I go from one side to the other straight away. See how you feel. This can be quite a severe movement so go easy, allowing the range to increase slowly as you do it. It pushes the facet joints of the lumbar spine together and is a somewhat unnatural movement as it tends not to occur on its own.



Arching

Stand with your palms against your buttocks, as if you are holding on to them. Move your hips forward, then lean back as far as you easily can. This can feel a bit tricky to start with but go easily and you will find it easier with time. This can be a very useful movement to do if you have a disc related problem and can't lie down to do prone back extensions (press-ups).



Exercises for core stability

Core stability exercises improve the muscular corset around the back.

It is important to isolate the exact muscles for the desired effect. If the whole tummy is tensed up the stability muscles do not strengthen up well.

Researchers tell us it is only necessary to tense the muscles up to about 25-30% of their maximum capacity to get the best effect. So trying very hard when doing these exercises is not helpful.

All the exercises are held for 10 seconds each time and done 10 times each - a total of 100 seconds. Three times a day is enough initially.

Exercise One

Lie on your front in a relaxed position. Tighten up the "pelvic floor" as if you are trying to stop yourself passing water, then imagine there is something hot under your tummy and try and draw it to your backbone. Do not tense up the chest or lift your hips off the surface. Once you have this, remember to keep breathing normally, not fast or particularly deep breaths.

Hold for ten seconds then relax. Give yourself a short time to recover then repeat the process until you have done it ten times. You will find that when you breathe the muscles will tend to slacken, and when you tighten the muscles you'll stop breathing. Work steadily until you can do both easily at the same time.

Exercise Two

You may need guidance from a physical therapist to do these correctly

Lie on your back with your knees bent. Gently tense up the pelvic floor again as this usually tenses up the correct muscles in the abdomen. You can add a gentle drawing down of the tummy button towards the spine. Breathe normally as before and hold for ten seconds each time.

- Exercise Two first progressionTense up the muscles as in exercise two. Hold the muscles tense and your pelvis stable while you let one bent leg gently out to one side a short way and back. Repeat with other. Five each.
- Exercise Two second progression. Hold as in the previous exercise, then lift one foot an inch off the floor only, and hold. Try and allow no movement apart from the small leg lift. Five each leg.
- Exercise Two third progressionTense up the muscles and hold. Bend the left leg up towards the chest, reach out with the right arm and gently push against the left thigh, holding 10 seconds. Alternate for five each leg.

Standing and sitting

By now you should be able to tense the correct muscles in standing and sitting and may not need to lie down to practice them anymore. You can also tense them up when doing stressful activities such as lifting a suitcase or whatever the particularly difficult movement is for you. Do them many times every day for the greatest benefit.