



# *X-Plain* *Back Exercises* **Reference Summary**

## **Introduction**

Back pain is one of the most common medical problems in the U.S. It affects most people at least once in their lifetime.

If not taken seriously, back pain can last for a long period of time, and can become disabling.

This reference summary describes back exercises you can do. The tutorial reviews the common causes of back pain and back injury prevention tips. It then discusses the benefits of back exercises and tips for doing them safely. You will also learn 12 selected back exercises.



## **Back Pain**

The most common cause of back pain is muscle spasms. An awkward movement of the back can lead to a severe muscle spasm. The muscle spasm causes the back to “cramp” and can cause severe pain.

A muscle spasm can occur after an awkward bending or twisting motion. It may even occur after a simple sneeze or cough. A movement as simple as bending to tie a shoe or twisting your back to face a different direction can cause a spasm. Muscle spasms can also occur when a heavy object is lifted incorrectly.

Long lasting back pain can occur also after accidents that have resulted in injury to the back.



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## Prevention

The best way to prevent back pain is to regularly exercise the back. It is recommended that you do back strengthening and stretching exercises at least 2 or 3 times per week.

Another good way of preventing back and leg pain is by using good back techniques at home and at work. Adopt a straight posture while sitting or standing.

You should try not to bend your back. Bend instead at the knees or at the hips while lifting objects, tying shoes, putting socks on or pants, etc.

Losing weight and avoiding accidents can also prevent back pain.

## Benefits of Exercising

Exercising the back muscles for 15 minutes a day, 3 times a week has three main benefits:

- It strengthens the muscles of the back, neck, and shoulders. This makes back injuries less likely.
- It makes the back more flexible, increasing its range of motion and endurance.
- It relaxes the back and reduces pain.

## Exercise Tips

Before you start a back exercise program, talk to your healthcare provider, especially if you have had a back accident or a history of back problems.

Stretch slowly, and avoid sudden movements. Pay attention to your muscles stretching. When you have stretched it as far as it can comfortably go, hold for 5 seconds, and then slowly return to the original position. Breathe slowly and deeply as you exercise.

Never stretch to the point where it is no longer comfortable. Go to the point where you feel a mild tension and relax as you hold the stretch. The feeling of tension should go away as you hold the position. If it does not, ease off slightly and find an amount of tension that is comfortable for you.



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Do up to 5 repetitions for each exercise unless your healthcare provider has requested a different number of repetitions.

Expect some soreness when you first begin exercising. Start out with a 2-second hold and gradually increase the amount of time until you can comfortably hold your stretch for 5 seconds. Start out with two or three repetitions and gradually increase to more repetitions.

The following are the typical steps in a stretching exercise:

- Move slowly to the point where you feel a mild tension in the muscle.
- Hold the position for 5 seconds.
- Return slowly to the original position.
- Relax for 2 seconds.
- Repeat the above 3 to 5 times.

If you feel dizzy during an exercise, stop exercising and sit down if you are not already seated or laying down.

Exercise regularly. If your healthcare provider has asked that you do these exercises, follow his or her directions. These directions may include how long you should hold your stretched position, the number of repetitions, and the number of times your exercises are done daily or weekly.

The program described in the next section explains 12 back exercises. They include:

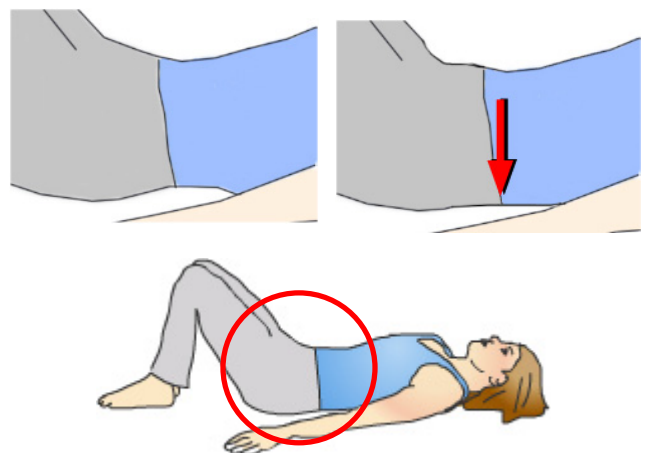
- Exercises to improve flexibility through stretching the muscles
- Exercises to improve strength through resistance

## Stretching Exercises

The following are back exercises that improve flexibility through stretching the muscle:

The Pelvic Tilt stretches your abdominal and back muscles and increases the flexibility of your hips.

1. Lie on your back with your knees bent, your feet flat on the floor or a mat, and your arms at your sides.



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Your feet should be about hip-width apart. Your knees should be slightly closer together than your feet.

2. Flatten the end of your back against the floor. This will cause your hips to tilt forward.
3. Hold this position for a few seconds and then relax.
4. Do 5 repetitions.

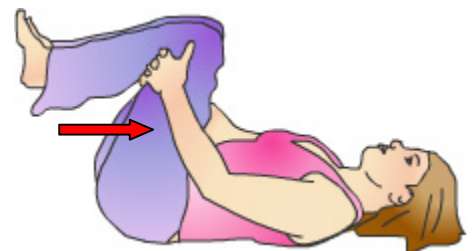
The Single Leg Pull stretches the muscles of your hips, lower back and buttocks.

1. Lie on your back with one leg bent, one foot flat on the floor or a mat, and your other leg extended straight out.
2. Use the arm on the same side to pull the bent knee to your chest in a continuous motion while keeping your lower back and other knee pressed against the floor.
3. Hold this position for 5 seconds.
4. Lower your leg to the starting position and relax.
5. Do 5 repetitions with the same leg.
6. Repeat exercise for your other leg.



The Double Knee to Chest exercise stretches the muscles of your hip area, buttocks and lower back.

1. Lie on your back with your knees bent, your feet flat on the floor or a mat, and arms at your sides.
2. Raise your knees, either one at a time or together, to your chest. You can use your arms to help pull your knees to this position. Use your arms to gently pull you knee(s) to your chest.
3. Hold for 5 seconds.
4. Lower your legs one at a time to the floor and rest briefly.
5. Do 5 repetitions.

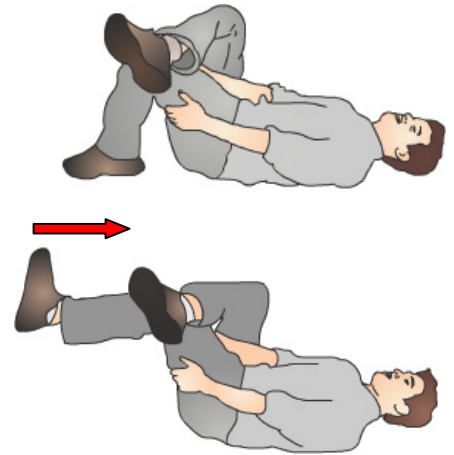


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The Pretzel is a great stretch for your inner legs and hips.

1. Lie on your back with your knees bent.
2. Cross one leg over the other at the knee.
3. Take a hold of your bent leg and pull both legs toward your chest.
4. Hold the stretch for 5 seconds.
5. Release and uncross your legs.
6. Repeat this stretch using your other leg.



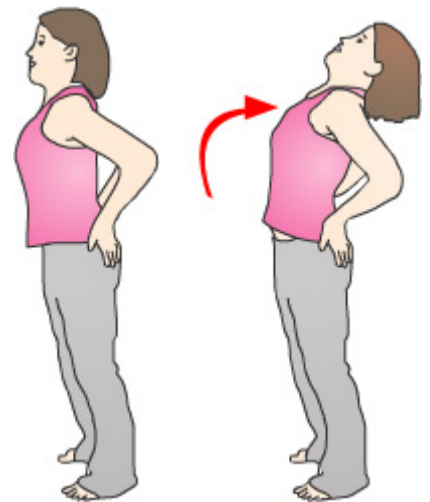
The Side Stretch stretches the muscles in your back and sides.

1. Stretch one arm over your head and bend your upper body to the opposite side in a flowing motion. Put your other hand on your waist and do not twist or jerk your body as you bend.
2. Hold for 5 seconds.
3. Return to the starting position with your hands and arms at your sides.
4. Do 5 repetitions.
5. Switch to the other side and repeat Steps 1 through 4.



The Back Arch stretches your shoulder, back, and hip muscles.

1. Stand up straight with your feet shoulder-width apart and point directly forward. Place the palms of your hands on your lower back.
2. Gently breathe in and out until you feel relaxed.
3. Bend your upper body backwards, supporting your back with your hands and keeping your knees straight. Try exhaling as you lean back.
4. Hold for 5 seconds.
5. Gradually return to your starting position.
6. Do 5 repetitions.

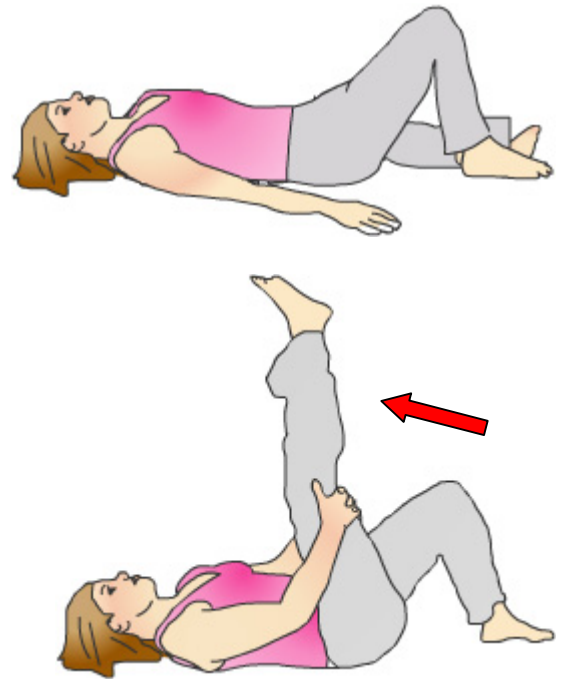


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The Hamstring Stretch stretches the backs of your thighs.

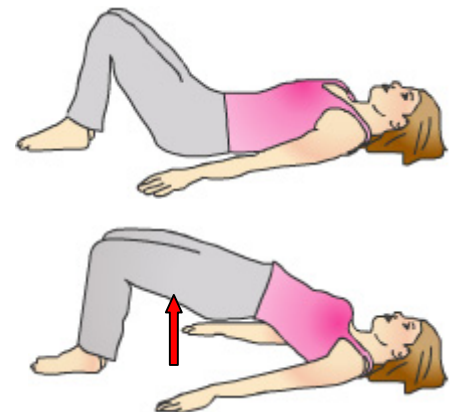
1. Lie on your back with one leg bent, one-foot flat on the floor, and your other leg extended straight out.
2. Lift your straight leg upward until you feel a slight stretch along the back of your leg. Use your hands to grasp behind your knee and help raise and hold your leg. If you have difficulty reaching your knee with your hands, place a towel under your knee or thigh and pull up on that.
3. Hold that position for 5 seconds.
4. Slowly lower your leg and let it relax on the floor.
5. Do 5 repetitions.
6. Switch legs and repeat.



## Strengthening Exercises

The Pelvic Lift strengthens the muscles of your buttocks.

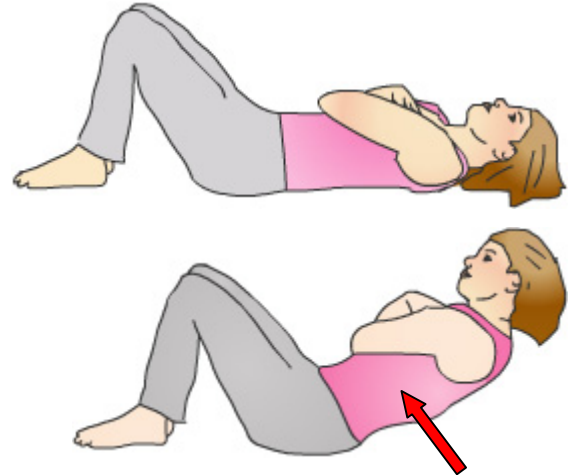
1. Lie on your back with your knees bent, your feet flat on the floor or a mat at about shoulder width, and arms at your sides.
2. Raise your hips bit by bit. It is important that you raise your hips without arching your back. Focusing on not sticking your stomach out can help you keep from arching your back. Try to keep a straight line from you shoulders to your knees
3. Hold for 5 seconds.
4. Slowly lower your hips to the starting position.
5. Do 5 repetitions.



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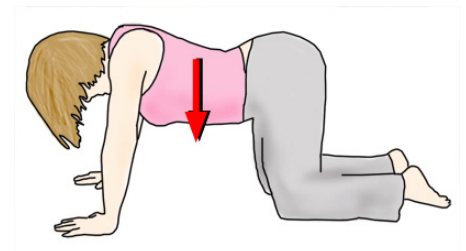
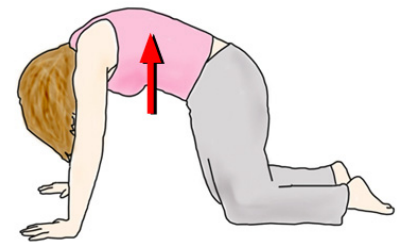
The Partial Sit-up or Crunch strengthens your abdominal muscles.

1. Lie on your back with your knees bent, your feet flat on the floor or a mat, and arms at your sides.
2. Cross your arms over your chest, keeping your middle and lower back flat on the floor. Raise your head and shoulders off the floor slightly. Raise up only far enough to get your shoulder blades just off the floor. It's okay if you can't go up too far at first.
3. Hold this position for just a few seconds. As you get stronger, you can hold it for 5 to 10 seconds.
4. Gradually return your upper body to a relaxed position on the floor.
5. Do 5 repetitions.



The Cat and Camel strengthens your back and abdominal muscles.

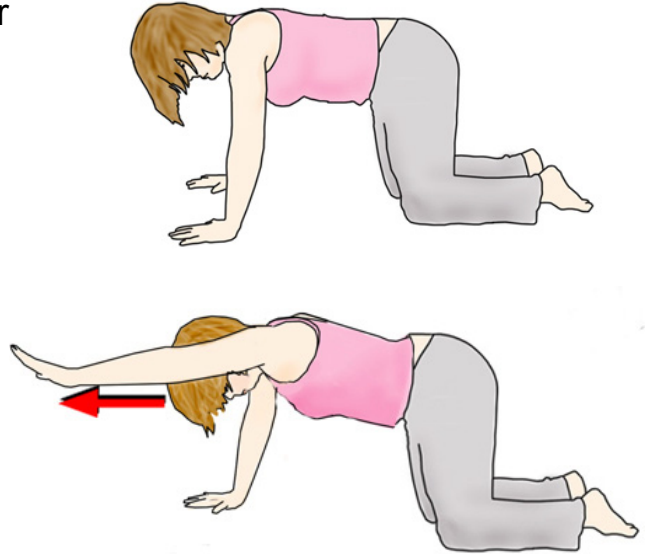
1. Start on your hands and knees with your weight evenly distributed and your neck parallel to the floor.
2. Arch your back upward by tightening your abdominal and buttock muscles, letting your head drop slightly.
3. Hold for 5 seconds.
4. Let your back sag gently toward the floor while keeping your arms straight. Keep your weight evenly distributed between your legs and arms.
5. Hold for 5 seconds.
6. Do 5 repetitions.



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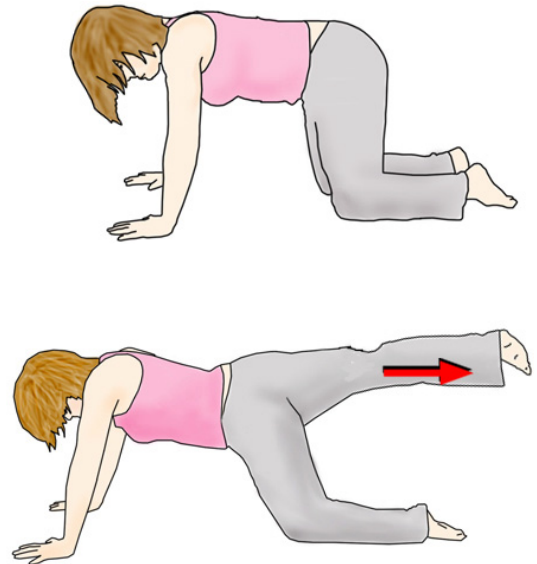
The Arm Reach strengthens the muscles of your shoulders and upper back.

1. Start on your hands and knees with your weight evenly distributed and your neck parallel to the floor.
2. Stretch one arm out in front of you being careful not to raise your head. Keep your weight evenly distributed between your knees and the one arm on the floor.
3. Hold for 5 seconds.
4. Return to the starting position.
5. Do 5 repetitions.
6. Switch to your other arm and repeat the exercise.



The Leg Reach strengthens the muscles of your buttocks.

1. Start on your hands and knees with your weight evenly distributed and your neck parallel to the floor.
2. Slowly extend one leg straight out behind you and hold it parallel to the floor. Your foot may be pointed or flexed – whichever is more comfortable for you. As you extend your leg, don't let your back, head or stomach sag. And make sure no one is behind you when you do this move.
3. Hold for 5 seconds.
4. Return to the starting position. Do 5 repetitions.
5. Switch legs and repeat the exercise.



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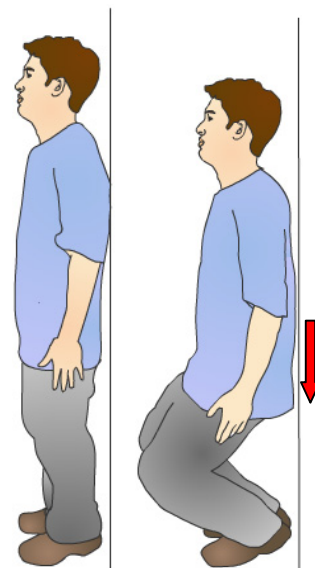
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The Wall Slide strengthens your back, hip and leg muscles.

1. Stand with you back against a wall and you feet shoulder-width apart. Place you hands on your hips or let your arms hang at your sides, whichever is more comfortable. Keep your head level by focusing directly in front of you.
2. Slide gracefully down the wall into a crouched position with your knees bent to about 90 degrees, as if you were sitting in a chair. If you have trouble going down this far, slide down halfway.
3. Hold for 5 seconds.
4. Slide smoothly up to your starting point.
5. Do 5 repetitions.



### Your Exercise Routine

You should do your exercise routine as frequently as suggested by your healthcare provider. If you do not have back pain or have never had an injury and you are exercising to prevent future back pain, aim at 15 to 30 minutes a session, 2 to 3 times a week.

Start each session with stretching exercises. After you do your strengthening exercises, try to end the session with more stretching exercises. Do not rush or strain yourself as you exercise. Remember that as begin to exercise, you will probably not be able to hold the stretch for a full five seconds and will do fewer repetitions. As you build your endurance, you can increase the amount of time you hold your stretches and the number of repetitions.

You can group the exercises. For example,

- Start with the exercises you do while lying down
- Continue with the exercises you do while you are on your hands and knees
- Finish with the exercises you do while you stand up



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You should combine stretching and strengthening exercises with some type of aerobic exercises approved by your doctor. Examples of aerobic conditioning include walking, bicycling, or swimming. A good way to be sure that you get both is to alternate your back exercise program and aerobic conditioning every other day.

General aerobic conditioning is important not only for your back but it also improves muscle tone, relieves stress, and improves sleep habits, along with other benefits.

## **Conclusion**

Back pain is the most common medical problem in the U.S. It is mostly caused by muscle spasms and degeneration of the disks in the spine. If not taken seriously, back pain can become very disabling.

Back pain will affect most people at some time in their lives. Action can be taken to prevent back pain or postpone the degeneration of the spine and disks. Preventive measures include:

- Exercises to strengthen the back and make it more flexible.
- Adopting good body postures and techniques.
- Avoiding accidents.
- Losing weight if you are overweight.

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