

Low Back Prevention Program

Prevention programs is another tool to help reduce the chances of injuries but does not completely rule out the injury.

Disclaimer: PLEASE stop exercises if you experience any pain or any discomfort at all. If pain and discomfort still persist, please contact the Athletic Trainer for further assistance or if it is an emergency, call 911.

- ❖ Low-dose, non-supervised exercises to help prevent and treat chronic low back pain⁴.
 - Attached below are the back exercises from Haufe et al⁴.
 - Should be performed 3x a week for at least 20 minutes⁴.

Exercises

1



- Sit up straight on a chair
- Round your back and sit up straight again
- Press your shoulders down and move your elbow backwards (shoulder blades together)
- Hold this position for 15-20 seconds

Practicing: 3 rep., with 30 s pause between

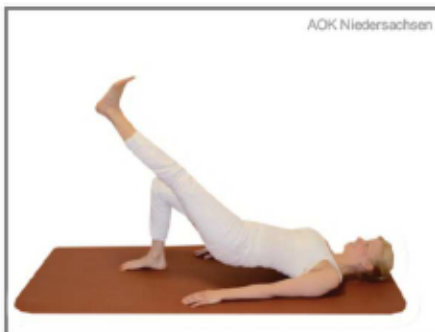
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- Lie on your back with your arms by your sides and your head relaxed on the ground
- Bend your knees with your feet flat on the floor
- Now raise your hips to create a straight line from your knees to your chest, hold for 2-3 seconds
- Then slowly lower your back to the ground and repeat the exercise

Practicing: 10-12 rep., 2 sets

3



- Advanced exercise: same starting position with your feet flat on the ground and your knees bent at a right angle
- Lift up your hips to create a straight line from your knees to your chest
- From this position extend one leg briefly and then place its foot back next to the other feet
- Now extend the other leg and place it back
- Lower your hips to the ground and repeat the exercise
- Make sure your breathing slowly and regularly

Practicing: 8-10 rep., 2 sets

Exercises

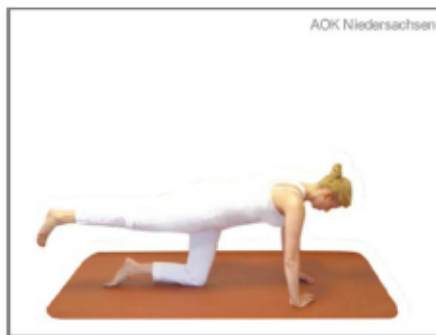
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- Stand with your feet hip-width apart
- Keep your back straight (avoid a hollow-back)
- Hold an individual weight in each hand (e.g. a water bottle)
- Slowly move your arms up and down in front of you
- Alternative exercise: move your arms slowly up and down in opposite directions

Practicing: 10-12 rep., 3 sets

5



- Come to a hands and knees position (quadruped position)
- Head to a horizontal position, face the floor
- Extend one leg and bring it in line with your back (hold this position for 2 seconds)
- Keep your back straight (avoid a hollow back) by tensing your abdominal muscles
- Come back to the starting position and extend the other leg (hold for 2 seconds)

Practicing: 8-10 rep with both legs, 3 sets

6



- From the same starting position (quadruped position): lift one arm at a horizontal position
- Hold this position for 2 seconds and make sure to keep your back straight and face the floor
- *Advanced exercise*
- Extend one leg while lifting your diagonal arm and briefly hold this position
- For repetition change your arm and leg

Practicing: 8-10 rep with both sides, 3 sets

Exercises

7



- Stand up comfortably
- Gently, tilt your body to the left and to the right side
- Hold it for a few seconds on each side
- Avoid evasive movements forwards or backwards

Practicing: 10 rep. on each side, 3 sets

8



- Sit on a chair with your back straight and your feet flat on the floor
- Pull your shoulder blades together, with your arms going behind your torso (turn your palms outwards)
- Hold this position for 5 seconds

Practicing: 12 rep., 3 sets

9

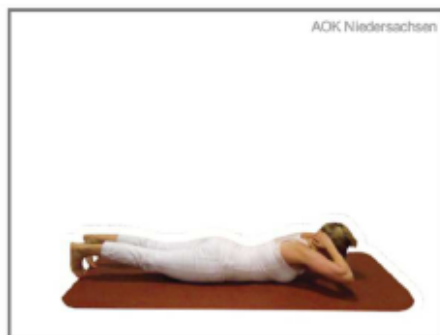


- Take an elastic band (or towel) and wrap it around your hands (no tension)
- Hold your arms at a right angle and keep your elbows close to your body
- Pull your hands apart at the same time (high tension), keep your elbows at your body
- Your hands come back to the middle, briefly relax and start again
- Make sure not to raise your shoulders

Practicing: slowly 10-12 rep., 3 sets

Exercises

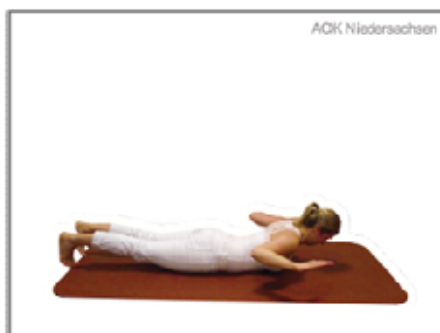
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- Lie on your front with your legs stretched out
- Bend your elbows and lay your hands on your neck
- Hold this position briefly (for about 5 to 8 seconds)
- Lower your elbows and arms back to the ground, breathe one time and repeat

Practicing: 6-8 rep., 2 sets

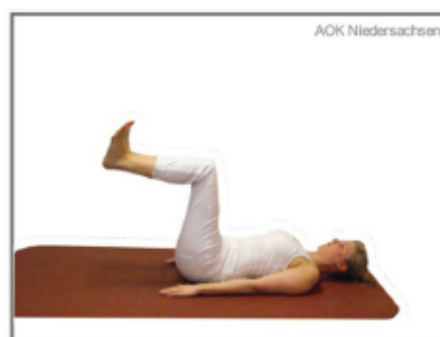
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- Alternative exercise: same starting position
- Bend your elbows to approximately 90 degree
- Lift your arms and bring your shoulder blades together
- Hold this position briefly (for about 5 to 8 seconds)
- Advanced position: keep both arms straight over your head at a horizontal position

Practicing: 6-8 rep. for each exercise, 2 sets

12

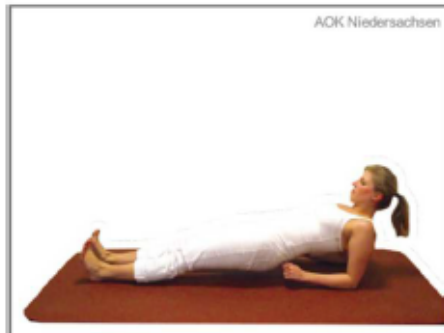


- Lie on your back at a bent knee position with your arms by your sides and your head relaxed on the floor
- Tense your abdominal muscles, optionally put your hands under your hips for stabilization
- Extend one leg and bring it in a cycling movement (3 to 5 times)
- Then perform with your other leg
- After that you can do it with both legs alternating at same time (cycling movement)

Practicing: "cycling" for 10-15 seconds, 3 sets

Exercises

13



- Lie on your back and then lean on your elbows and forearms
- Raise your hips from the ground and hold this position for a few seconds
- Lower your hips to the ground and then repeat the exercise
- Make sure your breathing slowly and regularly

Practicing: 8-10 rep., 2 sets

Bibliography:

1. Parreira P, Maher CG, Steffens D, Hancock MJ, Ferreira ML. Risk factors for low back pain and sciatica: an umbrella review. *Spine J Off J North Am Spine Soc.* 2018;18(9):1715-1721. doi:10.1016/j.spinee.2018.05.018
2. Wilson F, Ardern CL, Hartvigsen J, et al. Prevalence and risk factors for back pain in sports: a systematic review with meta-analysis. *Br J Sports Med.* Published online October 19, 2020:bjsports-2020-102537. doi:10.1136/bjsports-2020-102537
3. Triki M, Koubaa A, Masmoudi L, Fellmann N, Tabka Z. Prevalence and risk factors of low back pain among undergraduate students of a sports and physical education institute in Tunisia. *Libyan J Med.* 2015;10(1):26802. doi:10.3402/ljm.v10.26802
4. Haufe S, Wiechmann K, Stein L, et al. Low-dose, non-supervised, health insurance initiated exercise for the treatment and prevention of chronic low back pain in employees. Results from a randomized controlled trial. *PLOS ONE.* 2017;12(6):e0178585. doi:10.1371/journal.pone.0178585