Respiratory muscle training and stretching exercises - sports version
(approx. 25 min.)

Most of the following exercises go without any aids. Would be helpful: Rubber mat and music (for the warm-up: two songs), small ball and a pillow, possibly a stopwatch.

1) Warm-up (song 1)
Jogging. The warm-up (exercises 1+2) lasts two songs. Please divide your strength! Let the music play and jog slowly on the spot for one song. This can be done anywhere and without any aids, but a rubber mat reduces the impact on your joints. Jogging with your eyes closed from time to time improves coordination and wakes you up.

2) Combination warm-up (song 2)
Jogging combined with arm work. Divide the next song into three parts in your mind or perform each section for one minute at a time (stopwatch if necessary). Supplement your jogging with an additional exercise in each part. At the transitions to the next part, please do twenty jumping jacks each.
1st part of the song: Jogging and arms forward, later circling backwards. Twenty jumping jacks.
2nd part of the song: Pull your knees as high as possible towards your stomach when jogging. Twenty jumping jacks.
3rd part of the song: Now lift heels high up when jogging, give yourself the kick to start the day! Twenty jumping jacks.

3) Flank stretching
After this warm-up you will recover standing safely. Now cross your right foot in front of your left foot and place your right foot parallel to your left foot. Now cross the right stretched arm over your head to the left side. The left hand can be placed on the right hip for stabilization. Tilt as far to the left as possible so that your right flank is stretched out. Rest for 20 seconds in this stretching. Then change to the opposite side and repeat the exercise in mirror image position.

4) Back and leg stretching
Bend forward with spread legs from a safe standing position. Feet are wide apart, knees remain slightly bent for the duration of the exercise. Seen from the front you look like an "A". Breathe in deeply once, while exhaling bend forward from the hip, but leave the back stretched. The goal is to place your hands on the floor in front of you, shoulder length apart. If possible, also lay your head on the floor in front of you and bend your arms as if changing into a headstand. A lighter version is achieved by spreading your legs further apart or by leaning your hands on a stable object (e.g. a ball). Stay in this back and leg extension for 20-40 seconds.

5) Back and chest muscle training
At the beginning of the following exercises on the floor, please perform ten push-ups. Place your hands below your shoulders and keep your neck relaxed during the downward movement. Variations: Wall push-ups. The intensity of this standing push-up variation can be increased by doing it at a slant (angle of inclination). You can also perform these push-ups against a park bench or railing. For very advanced users: try inverted wall push-ups. Position your hands on the floor and your feet against the wall. This version looks almost like a handstand and requires a lot of strength.

6) Stretching the neck and neck muscles
Sit on the mat with your legs stretched out. Both hands rest beside the pelvis. Reach with your right arm over your head to the left auricle, hook into the upper ear cartilage clasp. Now the head is lowered, you look to the left outer side of the pelvis. At the same time your right arm tries to pull the left ear gently to the right shoulder from this position. If you do not lose sight of the left pelvis, a stretching of the left neck area will be created. Please stay in this position for 20
seconds. Then change to the opposite side, repeat the exercise in mirrored position. Then, fold both hands and place them on the back of the head. If possible, sit upright. The chin is now moved as far as possible towards the chest. Please do not make any rocking movements but bend slowly to the maximum possible and then stay in the stretching position for 20 seconds. After these 3×20 seconds please repeat a second time.

7) Abdominal muscle training
Sit-ups. Now lie on the rubber mat in a supine position and bring both hands to your temples with bent knees. Keep your elbows wide apart and tense your abdominal muscles. Now lift only the upper back and shoulders from the floor. If you lift the whole upper body, the exercise is not as effective. After 20 cm of ascent you already start the lowering movement, but please do it twice as slowly as the ascent movement. Do two times ten repetitions.

8) Diaphragmatic or abdominal breathing (in supine position)
Now please stretch out on the floor in a supine position and breathe consciously into your stomach. In order to better feel what to do when breathing into your stomach, place both hands on your stomach. Now try to make sure that your hands are lifted towards the ceiling as you breathe in. At the highest point of the movement, please pause for 2 seconds before letting the small abdominal dome collapse again with exhaling. Please repeat this exercise five times.

9) Back and abdominal muscle training (hard)
Leg lifting in the back support position. Sit on the floor with your legs stretched out. Your hands go behind your body with your fingers pointing towards your feet. Now push yourself up with your arms, tense your buttocks, legs and stomach. Raise your hips until your body forms a line. Now lift one leg towards the ceiling for two seconds without letting the pelvis sink down. Then put the leg down again and repeat the exercise with the other leg. Repeat four to eight times for each leg.

10) Diaphragmatic breathing (in prone position part 1)
Now please change to the prone position. Place your forehead on a pillow so that your face is lifted from the pad. The legs are stretched out, the backs of the feet lie flat on the ground and the arms lie stretched out parallel to the body. Lie completely straight and flat and remain in this position for a total of five deep breaths. Breathe consciously and deeply into your abdomen, just as you did during the abdominal breathing exercise before. When inhaling, try to raise your back far towards the ceiling. Linger at the peak of the movement for 2 seconds and enjoy the relaxation during the exhalation.

11) Back muscle training
Swimming variations. Remain in prone position, remove the pillow and place your arms on the mat at shoulder level. Now tense the gluteal muscle and the navel.
2. Paddle. Alternately lift the right leg with the left arm and the left leg with the right arm about ten centimeters from the mat. Twenty repetitions please.
3. breaststroke. Lift your upper body in slow motion for another ten breaststroke swim strokes.

12) Diaphragmatic breathing (in prone position part 2)
Return to the prone position with arms resting against the body. This time please place your head to the right and stay in this position for five deep breaths. Breathe deeply into the abdomen, enjoy the diaphragmatic breathing, stay at the peak of the movement for 2 seconds and then let the air escape.

13) Back and abdominal muscle training
Forearm support. Starting from the prone position, place your forearms parallel to each other on the mat at shoulder width. The hands point forward or they are placed inside each other. Now lift your pelvis off the floor and distribute your weight over your toes, forearms and hands.
Try to form a line, don't put your head in the neck, don't form a hollow back or cat's hump. Hold this position for 20 seconds. Please perform three sets.

**14) Diaphragmatic breathing (in prone position part 3)**
Return to the prone position with arms resting against the body. This time please place your head to the left and stay in this position for five deep breaths. Enjoy the diaphragmatic breathing, linger again at the climax of the movement for 2 seconds and then let the air escape in a relaxed manner.

**15) Back muscle stretching (Yoga figure: little cobra)**
Back to a straight prone position. You lie flat on the mat, your head turned towards the floor, your arms angled and the palms of your hands on the right and left at shoulder level. Now slowly press your hands into the floor. From this position the upper body is raised until the arms are fully extended. The pelvis remains lying on the mat. Please do not overstretch your head, do not tense your buttocks, continue to breathe calmly. Remain in this position for 20 seconds. Return to the starting position. After a few deep breaths, please repeat the exercise just described.

**16) Spinal mobilization and back stretching (Cat-Cow stretch)**
Please proceed to the quadruped stand. Now change to slow motion and so on supple as possible from the cat hump to the hollow back. In the hollow back position the head goes up and you breathe in, in the cat hump position you roll your head down and breathe out again. Please repeat this exercise ten times.

Afterwards back stretching: Try to sit down on your heels with your arms still stretched out. If you have problems doing this, you can put a cushion between your buttocks and calves. Now move your palms as far forward as possible. Stretch your back. Let your head hang relaxed between your upper arms while you enjoy the stretching of your back muscles for 20 seconds.

**17) Ventilation exercise**
Straighten up in the heel seat. Your hands rest on your thighs. Lay your head relaxed in the neck, look up at the ceiling and sigh deeply three times.

**18) Final Airway Purification**
Still in the heel seat. Take a deep breath, formulate a loud "A" and drum vigorously with the palms of your hands against the chest during the entire exhalation phase, so that a "vibration-A" is created. Then take ten slow, deep breaths, then cough strongly three times in the crook of your arm or in a pillow.

Take another very deep breath. Produce another "Vibrations-A" by drumming vigorously and try to prolong the exhalation to the maximum. Take another ten slow deep breaths. And with the next three strong coughs you will end your training program for today.

**Also good for strengthening the cough muscles:**
Pull-ups, sling trainer, rubber bands.

**Good for loosening tissue adhesions:**
Smash exercises, hard foam roll, yoga, Pilates.

**Noted:**
Eccentric (braking force) movements are easier than concentric (pulling force) and result in greater muscle building. Eccentric pull-ups: They start at the top of the horizontal bar and descend slowly and slowed down by your muscle power. If you practice this for a few days, you will see that you can easily do real pull-ups afterwards. The same applies to climbing stairs. Get the strength to climb stairs by doing a slow-motion downstairs workout for a couple of days.

(Created in the context of the Covid 19 pandemic by Dr. S. Gawehn. Free download / multilingual: https://atemtherapie.meyn.pro/)