

FAQ (short version)

1 Reasons for weak coughing. Where does that come from and how do you get a more powerful cough? Mostly back muscle insufficiency. You can improve the strength of your cough by exercises such as pull-ups, push-ups, sit-ups, stretched paddle movements in prone position, sling training, jumping jacks.

2 Cough better, breathe better! Effectively less pneumonia? Up to 50% less postoperative pneumonia was found by a very simple exercise:
Ten deep breaths in and out. Then cough vigorously three times (with the crook of your arm or a pillow). Repeat the entire exercise set again. That's it. In a study, this maneuver led to 50% less pneumonia - provided that it was performed hourly and until mobility was regained.

3 Are there studies that show how much the lungs could improve over time? Yes, there are many studies. With 30 minutes of physical activity five days a week, they found:

After four weeks an increase in endurance of 26% was observed.

After six weeks of breathing therapy, test persons no longer showed the usual decrease in fatigue of the respiratory muscles.

After eight weeks, a significant increase in vital capacity, one second capacity and 6-minutes walking distance could be demonstrated.

4 Don't all respiratory muscles lose strength anyway during ventilation? No. We have to distinguish between the small, filigree, direct respiratory muscles and the large, indirect respiratory muscles. The small ones do indeed lose strength very quickly, but the large indirect breathing muscles do not. It is worthwhile to build up muscle mass in advance (especially back and abdominal muscle training).

5 Ventilation in prone position. Why? The lower parts of the lungs are loaded by the body weight. This causes them to partially occlude and high pressures are needed to ventilate them. Ventilated people are rotated at regular intervals to facilitate ventilation of all lung areas. A stretched body is easier to both spin and ventilate.

6 What criteria are used to decide whether someone can be weaned from the ventilator? There are several criteria on a kind of checklist. Three important criteria are: Protective reflexes present? Awake and responsive? Able to cough against the machine when prompted? Those who cannot free themselves from obstructed airways are still at vital risk.

7 The direct breathing muscles should be small and delicate. Is the diaphragm muscle not also very large? Unfortunately not. The diaphragm consists of a large fibre plate, its muscle content is indeed very small. With regard to diaphragmatic breathing, we benefit above all from the training effect of directly controlling the diaphragm muscle. Our brain does not forget this so quickly.

8 Paradox? Narrowing the airways helps to keep them open? The principle is similar with compression stockings. Compression increases the tone of the veins. It

prevents varicose veins or insufficient venous valves from causing the blood flow to stop. If you purse your lips when you exhale, as if you were blowing out a candle or whistling, this increases the tone of your airway. The tissue is tightened. Small parts of the lung can collapse less easily and remain open.

9 Stop smoking. Do you have to? Smoke inhalation blocks the cilia in the lungs. They're there to clear the mucus membranes of the lungs. In severe Covid-19 infections large parts of the lungs are often inflamed. The gas exchange surface of the lungs is the size of a tennis court. In addition to the strength of the cough, functional cilia are also necessary to rid this large area of inflammatory secretions in the event of pneumonia. Stop smoking!

10 Actively clean the respiratory tract. How does this work? Stop smoking, strengthen the coughing muscle, hum "M" when exhaling, stutteringly exhale "T" and "K", cycle over cobblestones and formulate a loud "A" with a half-open mouth.

11 Use of cortisone sprays for closed nose and pollen allergy? Avoid cortisone sprays if possible. Nasal rinses in the evening before going to bed and intermittently during the day help to rid the nose of pollen. Wear a mouth-and-nose protection as soon as you leave your home - this will further reduce the allergen load.

12 How does adequate sleep help? Sleeping for 7-8 hours reduces cortisol secretion and lowers blood sugar levels. Both reduce the susceptibility to infections. Furthermore, many repair mechanisms take place in the body during the sleep phase.

13 When do metabolic changes become noticeable? Usually after three weeks. The body needs this time to form the necessary cells, organelles, receptors and enzymes for the new metabolism.

14 Endurance training for people with walking difficulties. How could this work? Hand bike at the kitchen table, flexi-bar exercises, dynamic sling trainer exercises.

15 Alternative to jumping jacks for artificial joints? Sitting, half jumping jacks 3x20 in a row. The jumping jacks' arm movements create a great pressure-suction effect, which bring chest contents into accelerated flow. This accelerates the circulation of the defense cells, loosens fascial adhesions and opens pulmonary alveoli.

16 Belly-Smash. Is this also useful for older people? Training frequency? To roll on a ball in prone position loosens adhesions and mobilizes the diaphragm. Belly-Smash can be helpful 1-2 times per week (duration: 5-10min.). Older people can use a half-pumped football, athletes like to use a tennis ball.

17 Respiratory therapy and metabolic training. Where is the benefit greater: in prevention or in aftercare? For prevention you will find a calculation table on the homepage. A high number of feedbacks from Italy shows that respiratory aftercare is even more important and also more successful than prevention.