

Dr. Sandra Gawehn (internist and sports physician) works in a pulmonary clinic and is available to answer our questions about respiratory therapy

Why and for what purpose should one engage in respiratory therapy?

Covid-19 infections can lead to severe and life-threatening pneumonia. Everyone can now improve their physical situation and immune system through training. If you are interested in the topic "respiration and respiratory therapy", you will improve your knowledge about it, which in turn helps to reduce anxiety and stress. Both again strengthen the immune defence.

It also helps others if you put yourself in a better position: each person who comes through a Covid-19 infection on his own releases resources for others.

Physiotherapy is well known. But what exactly is respiratory therapy?

It is a subfield of physiotherapy. It strengthens the respiratory muscles and teaches special postures and manoeuvres which - with regular training - permanently increases the lung volume and give us more respiratory capacity, and also shows us tricks with which we can very quickly obtain relief in case of sudden shortness of breath.

In a birth preparation course, expectant parents train how to free themselves from the pain of labour during the birth process. The approach here is identical: train your lungs in advance so that you can benefit from your knowledge and training should you need it.

How does our breathing work?

The lungs themselves have no muscles, breathing is achieved by passive movements of the lungs. It is indirectly connected to the thorax, the lungs are supplied with air by negative and positive pressure.

The diaphragm sits under the lungs like a stretched umbrella. Through its suction and pressure effect, it can take over up to 80% of breathing and transport up to 6 litres of oxygen per minute into the lungs.

What part of breathing is the respiratory therapy concerned with?

The lung is the only autonomous body organ that we can actively control. We can actively suppress, strengthen, direct and intensify breathing. We can improve our breathing by learning more about the breathing muscles and how to strengthen them. There are direct and indirect breathing muscles. These are two very different types of respiratory muscles: they have different tasks, sizes, muscle-fiber ratio and functions.

How does respiratory training work? What do you actually train or learn there?

Breathing to a counting pattern: For example, inhale 1x and exhale 3x as long.

Selective muscle training: For example, back muscle training.

Resistance breathing: Narrowing the airways or putting on weight. While training diaphragmatic breathing, for example, place both hands on the abdomen while lying down.

Exercises for cleaning and keeping the airways open: lip-braking, goalkeeper position, M-buzzing during exhalation, vibration manoeuvres etc.

To sum it up in one sentence: Breath training helps us to get more oxygen, more space in the trunk area through stretching exercises, stronger breathing muscles and breathing aid muscles and about all the knowledge, about breathing, breath training provides us with a priceless tool to avoid anxiety in case of shortness of breath.

Who should and can do breathing training?

Breath training helps everyone and can be done by everyone. Healthy and sick people, children, home office workers, pregnant women, pensioners and bedridden people.

What do I have to consider regarding space, position and fresh air supply?

You can do the exercises everywhere, in the car, on the laptop, while doing housework, in the garden, in bed, on the balcony - everywhere. Make sure you have fresh air - if possible.

Space requirements: Walk according to your height and the reach of your arms, this is approximately what you need. Whether you should walk or sit, it all depends on the exercise you want to do. There are many different exercises.

Which and how often should I do exercises? Where can I find instructions?

You can find instructions here: Physiotherapists, literature, health insurance and internet. Use the browser search "respiratory therapy".

Turning and stretching exercises are good for people with chest, neck and shoulder pain. Lip braking and breath counting manoeuvres are often good for fragile and anxious people, as they calm them down.

Exercises to cleanse the bronchi are good for smokers and people with respiratory tract infections.

Muscular exercises (push-ups and back exercises) are good to improve coughing.

Exercise three times a day for 3-5 minutes.

Addendum:

On our homepage you will find two highly effective trainings, which are especially designed to strengthen the respiratory and coughing muscles. You will notice measurable changes after just a few days.

How much time does it take to benefit from the training effect of the respiratory therapy?

Every minute is worth something, is sensible and effective.

Knowledge and experience: You can gain experience regarding certain breath counting rhythms and their physical effects within a single minute. Take part and gain as much experience as possible.

Musculature: Improvements show up after 2-4 days. Example: bicycle tour lasting several days.

Nerve control: Improvements will be seen after 2-4 days. Example: Learning a new piece of music.

Addendum:

To measurably change respiratory rate and lung volume, you need about two weeks. (see FAQ).

Are there contraindications? When should I better not do the exercises?

Do everything in small steps and in mini-training units at the beginning. If you find that any exercise is not good for you, simply skip the exercise. Please do not overdo the physical rotary-stretching movements or the accelerated breathing exercise. If you hyperventilate at home and trigger an emergency call right now, you are not doing yourself or society any favours. Monitor yourself and feel your way through the variety of exercises in very small steps.

Training structure in 3 steps:

Step 1: Regularity. Train for 3 minutes daily.

Step 2: Intensify the duration: for example 3x3 minutes.

Step 3: Finally, increase the intensity. Do this only from the third week on.

What to do in case of pain and/or limited mobility?

Choose another exercise and go back one level on the three levels of the training structure. Reduce the intensity or / and shorten the training time until you get through the exercise without pain. Only then do you go one training level further.

Stretching is especially helpful for movement restrictions and also for chest pain - for example after pneumonia. Cramped chest muscles cause pain and narrow the chest. The ability of the lungs to expand is reduced in a constricted chest and this limits the amount of air that can be breathed per unit of time. Stretch your trunk and neck muscles, give your lungs room (back).

Find out more about aids such as BlackRolls, heat or cooling batteries.

For shoulder pain, regular short pendulum exercises help. You stretch the shoulder girdle by performing small pendulum movements (10cm back and forth) with the hanging arm, with a weight of about 500g in your hand.

What helps besides breathing training to get through the year 2020 better?

Say goodbye to smoking. Boost your immune system. Sleep 7-8 hours a day, eat a healthy diet, make sure you drink enough and build a short mix of strength and endurance into your day. For example: jogging (outdoors or in front of the TV), jumping jacks, standing calf rocker, pull-ups, push-ups, sing, or play a blowing instrument.

How do you get through the day to stay fit?

I have put two rubber mats on top of each other in the living room and jog on them like on the forest ground. I follow the tips and workouts that we have posted on the homepage and I sing along loudly to radio songs while driving.

Summer addendum:

Since the interview was recorded in March, I would like to add: I love to ride my bike and spend as much time as possible outdoors and in the sun.

(erstellt im Rahmen der Covid-19-Pandemie von Dr. med. S. Gawehn. Gratis download / multilingual: <https://atemtherapie.meyn.pro>)