

# Being Active During Social Distancing? The COVID-19 Challenge

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The 2019 novel coronavirus has demanded the need to be socially distanced in insolation (for all the epidemiological reasons that we know and we will not discuss in this text).

Sedentarism is at the door if not already in the houses.

We wanted to share via this publication, the common and frequent questions that we have been asked as a Sports Medicine Physicians during these tough days.

#### Is It Good or Not to Exercise in Times of COVID-19?

Yes, the benefits and the preventable impacts that exercise has, are very clear in relation to chronic, noncommunicable diseases, including cardio-metabolic and respiratory diseases. And in those with transmissible diseases, such as HIV, the benefits of exercise are more than published.

Here are some benefits of exercise:

Improves physical resistance and shape.

Regulates blood pressure.

Increases or maintains bone density

Improves insulin resistance.

Helps maintain proper body composition.

Increases trophism and muscle strength.

It improves joint flexibility and mobility.

Reduces fatigue.

It improves balance, reducing the risk of falls.

In pregnancy, it prevents: eclampsia, preeclampsia, gestational diabetes. Improves performance in labor and its recovery.

Improves your immune system in terms of NK cells, CD4 and CD8 lymphocytes, complement, antigen presenting cells, Tregs and balanced production of immunoglobulins; The performance of the immune system barrier in the respiratory system is improved, making the ciliated cells have better mobilization of particles and excess mucus.

Increases self-esteem.

Improves self-image.

Reduces social isolation (be aware that these days we all must be socially isolated).

Reduces stress.

Reduces the level of depression (these days we are at risk of homesickness).

It helps you relax.

Increases alertness.

Decreases the number of accidents at work (And at home).

Reduces aggressiveness, anger, anguish. (important to avoid during social distancing).

Increases general well-being.

Improves presenteeism and job performance, lower absenteeism, impacts positively business productivity, especially in terms of utility and sense of belonging. (these days it will help to cope with all home activities such as: laundry, cleaning, cooking, babysitting, homeschooling)

Furthermore, a well-done exercise, with adequate nutrition and supplementation, helps us have a conditioned immune system, which may minimize the risk and help fight infections, including the novel coronavirus.

# Is It Recommended to Go to Gyms? Is It Advisable to Train at Home? or Is It Better to Be at Rest?

Taking into account how things are right now, the straight forward answer is NO.

We would never consider rest; unless a suitable medical criterion establishes it. If you have respiratory symptoms, you must contact the attention lines and follow the process.

Now most of the large-format gymnasiums, which have a sports medicine physician, have mobile apps that users can access to exercise from home. These same apps offer consultations with the staff, including: sports medicine, physical therapy, and licensed physical education trainers.

It is a time of prevention, of caution, rather than of panic; but COVID-19 is worldwide, the epidemiological protocols are implemented worldwide; when the time comes according to the epidemiological curve in its country, special protocols will eventually come out for gyms and its clients to return to their activities.

"nobody absolutely nobody with respiratory symptoms should go to a gym, neither client nor employee".

For each case, the best recommendation is to consult with a specialist. For example, if someone experiences ocular symptoms, they go to the ophthalmologist. Same applies to any pathology or prevention scenario and if you want to know how to exercise and what to do during the COVID-19 era, it is essential to consult your sports medicine physician and his team.

#### What Kind of Exercises to Do?

The type of exercise varies for each person, depending on the level of conditioning, cardiometabolic or musculoskeletal diseases that may be taking place, for this reason we insist on having an evaluation by a sports medicine doctor, at this time through a mobile app or telemedicine.

In general terms, for a previously sedentary and apparently healthy person you should start exercising gradually, we recommend starting with 3-4 days a week of exercise, you should always start with a warmup routine (joint mobility) that will last approximately 10 minutes, perform cardiovascular exercise such as walking (whether at home or if you have a treadmill), exercise bike, elliptical (starting at the lowest resistance levels) or routines with exercise circuits with your body (squats, push-ups, abdominals, planks) with these the advantage is that it works another important component such as strength, this can also include working with elements like TRX, weights or elastic bands, remember to start with the softest or lightest and always end with stretching routine. With this to start it can take 45 minutes to 60 minutes a day.

When doing an exercise, you have to control the level of effort, not exaggerate or overreach; overall if the person has been sedentary for a long time. The effort can be controlled by means of the fatigue perceived during exercise, handling the Borg scale, it must be between 3-4. See graphic below.

Rating	Descriptor
0	Rest
1	Very, Very Easy
2	Easy
3	Moderate
4	Somewhat Hard
5	Hard
6	-
7	Very Hard
8	-
9	-
10	Maximal

# How Should the Food Be?

Knowing that we are moving less, since our physical activity is reduced by confinement, the expenditure of calories by our body is also reduced. So, we must watch carefully the foods that we consume, avoiding those with high fats and carbohydrates (in terms of quality. The approach is to have a healthy and balanced diet that contains carbohydrates, protein, fats and vegetables, which provide macro and micronutrients. Do not forget water consumption, hydration is key to maintaining body balance, for both fat loss and muscle homeostasis.

These advices may help:

1. Watch your urine, it must always be clear or clear light yellow in color.

2. 2 hours before training drink 2 ½ cups of water.

3. 15 minutes before training 1 <sup>1</sup>/<sub>2</sub> cup of water.

4. During exercise, have sips of around 80 - 100ml every ten minutes.

5. During exercise, do not wait for thirst to show up to start hydration, thirst is the 1<sup>st</sup> sign of dehydration, and this is when you decrease about 10% in your performance.

6. Dehydration increases the risk of injury.

# What Should We Reinforce in Our Diet?

Best advice for this is to seek a licensed professional, either a dietitian or nutritionist.

# At What Time Would It Be Better to Train?

There is not an optimal time to exercise, this varies from person to person, since the answer is different, when doing it in the morning, the effect of energy to many people serves for alerting in daily activities, others when doing it at night It helps them sleep, but it gives others insomnia.

The best time to workout is when you are able and have time to perform.

#### If I Have COVID-19, Can I Do Some Exercise? If I Am Hospitalized? If I'm Home?

If you have a diagnosis of COVID-19, the recommendation is not to exercise, maintain the isolation for 7-14 days, control your symptoms and follow the indicated treatment. If you are at home, you can maintain mild or light physical activity, such as walking, joint mobility, and home activities, if symptoms allow.

If you are hospitalized it is because the severity of the SARS-Cov2 infection warrants more advanced management, this implies that you will be in bed all the time, so you will not be able to exercise like you did outdoors or at home before the infection. Exercise could be reactivated according to its functional state, which would avoid cardiopulmonary, neuromuscular deconditioning to take place due to prolonged stay in bed. Each hospital or clinic must have a rehabilitation service, run by a Sports Physician and/or Physiatrist, with professional personnel in physical, occupational, and respiratory therapy who will oversee implementing a plan for each patient affected by COVID 19.

#### What Sequelae Can COVID-19 Leave Me and What Can I Do to Rehabilitate Them?

It has been seen by previous outbreaks and epidemics of respiratory diseases due to Coronavirus and what has been shown in the current pandemic that the most affected organs are the heart and lung. The severity of these sequelae depends on the severity of the infection and the susceptibility of each person (especially for their comorbidities), the musculoarticular and neurological systems are also affected. The impacts of the infection are not only in relation to the direct effect of the virus and the inflammatory response, but to the effects due to rest due to prolonged stay in bed.

For this reason, after controlling for COVID 19 infection, it is important to have an evaluation by a sports medicine specialist, a cardiologist, a pulmonologist, and a physiatrist to evaluate their functional capacity (cardiorespiratory, musculoskeletal, neurological) and initiate a rehabilitation plan according to your state of health, which can be with cardiac rehabilitation programs, pulmonary rehabilitation or if your health is not so compromised and allows it, exercise prescription by a sports doctor to start exercise at home, gyms or in a Sports Medical Center. Either way will help make commitment to a healthier lifestyle and you can get your life back as closed to normal if not better. The latter, believe it or not, may happen.

"HUMAN BEINGS SPEND LIFE LOOKING FOR TIME TO EXERCISE AND MORE THAN SEARCHING IT, IT IS TO BE FOUND. NOTICE THAT AT LEAST FOR NOW, THIS MOMENT HAS BEEN GIVEN, LET US PROFIT AND START A HEALTHY AND ACTIVE LIVING. REMEMBER SEDENTARISM IS A CAUSE OF MORTALITY AS SUCH AND A RISK FACTOR FOR OTHER SO MANY CAUSES".