



Ergonomic Tips for Home Office Pain Relief

Here are some ways to improve the ergonomics of whatever "home office" space you are working in. If you have noticed any issues with back or neck pain, headaches or carpal tunnel syndrome, you may want to make some adjustments in your working space.

Laptop/Monitor position

- The top of the monitor should be at or just below eye level. You should not have to bend your neck.
- Place the monitor about an arm's length away.

Sitting position

- If possible, sit with your feet flat on the ground.
- Maintain your leg-to-back angle at 90-100 degrees.
- Elbows should be close to the body and bent between 90 and 120 degrees.
- Wrists should be straight with hands at or below elbow level.
- Forearms should be parallel to the floor.

Additional suggestions

- Take a break every 20-30 minutes and walk around.
- Be sure your workspace is well-lit.
- Look away from your screen every 20 seconds to rest your eyes.
- Put your phone on speaker for long conversations.

Hopefully, the suggestions above will help you work painlessly from home.

Homestyle Hacks

- ❖ If your chair is not adjustable, consider using a footrest or a pile of books to help you keep your feet flat on the ground.
- ❖ A rolled-up towel or pillow can be used for lumbar support.
- ❖ Placing a pillow on the seat of your chair can make you more comfortable or raise you up.
- ❖ If you are using a laptop, raise it on a stack of books if you have an external keyboard and mouse you can attach. Alternately, consider attaching an external monitor.

Is it Safe to Exercise Outside?

Experts seem to agree that people can exercise outside safely if they take the following precautions - exercise alone and stay six feet away from others. This can be accomplished by finding trails or sidewalks that are less crowded and choosing times of day when fewer people are out. Large empty parking lots are a good place to walk.

At Pennington Biomedical, we know the benefits of exercising but exercising outdoors has additional benefits. Fresh air and sunlight are also beneficial in improving mental health, boosting your immunity and improving sleep. Sunlight has also been shown to kill some viruses including the influenza virus, but be aware that there is no evidence that sunlight kills the coronavirus. UVC is the ultraviolet light required to decontaminate equipment related to SARS-CoV-2, and the UVC from sunlight does not reach the earth.

Get outside and enjoy this beautiful spring weather - just social distance while you do it.

Is Antibody Testing as Good as it Sounds?

If you are keeping up with the news, you will hear praises being heaped on antibody tests for SARS-CoV-2, the virus that causes COVID-19, and how they can help us return to work. With a possible 25% of cases being asymptomatic and a lack of testing available for those who believed they were infected, antibody testing seems like a way to provide the answer. But unfortunately, it isn't that simple.

First, a little background on the two general types of tests available.

- Antigen testing - these are the nasal swab tests that have primarily been used to this point. They detect an active infection which means they are not positive after the body has cleared the virus. Most of these tests use reverse transcriptase-polymerase chain reaction (RT-PCR) and measure the presence of viral material.
- Antibody testing - a blood test that detects antibodies to the infection and are used after the infection is cleared. The tests commonly detect two types of antibodies - Immunoglobulin M (IgM) and Immunoglobulin G (IgG). IgM peaks the earliest, 12 days after the infection, and studies indicate it lasts about 5 weeks before rapidly decreasing. IgG peaks at 17 days and lasts a lot longer. It has been detected at 7 weeks for SARS-CoV-2 (the furthest studies go out) but up to 2 years for SARS-CoV-1, the virus that caused SARS. There are 3 types of antibody tests:
 - Rapid diagnostic test (RDT)-quick results but does not measure the amount of antibodies or if they are able to inhibit the virus.
 - Enzyme-linked immunosorbent assay (ELISA)-results in a few hours, gives more information on the amount of antibodies but does not tell if the antibodies can inhibit the virus.
 - Neutralization assay-takes days for results but answers if the antibodies can inhibit virus growth.

"Immunity certificates" touted in some countries, are not a good idea. These allow people who have a positive antibody test to work and travel freely.

- Most antibody tests on the market have not been authorized for use by the FDA. The FDA is in the process of validating many of these but it is unknown when this process will be complete. The many brands of tests are not comparable.
- Most of these tests have a percentage of false positives (results that are positive when the person has not been infected) and/or false negatives (results that are negative when the person has actually been infected). Depending on the incidence of the infection in the population being tested, false positives and false negatives can add up to quite a few people. People who think they are protected because they were assured by a test that they have had the virus may increase transmission. Those who have had it but are told by a test that they have not may stay out of work for fear of catching it.
- It is unknown if antibody production leads to immunity and how long that immunity lasts. The tests also do not measure level of immunity, i.e., some people may have antibodies but not enough to prevent reinfection. To be effective, antibody testing will need retesting on regular intervals.
- For countries offering immunity certificates, people who need a job may get infected hoping to recover and then qualify for the immunity certificate. This actually happened during the yellow fever outbreak in the nineteenth century.
- Also unknown at this time is the possibility that other coronaviruses could cause a positive response (cross-reactivity).
- Lastly, these tests need to be available on a large scale for testing to provide the information needed to make policy decisions.

In summary, antibody testing has great potential, especially as our knowledge base broadens. Once tests are validated, they can be used for surveillance and then for individuals that are given priority (such as healthcare workers). And as supply increases, for the general population. But currently, they are not a magic bullet.