

Coping Strategies for Managing Stress during the COVID-19 Shelter-in-Place Orders: Exercise, Sleep, Eating Healthy, and Stress Relieving Activities DO Help!


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Overview

- ▶ Why is exercise important during the COVID-19 pandemic?
- ▶ How can I stay physically active despite COVID-19 closures?
- ▶ Creating healthy habits
- ▶ Preparing the brain
- ▶ Training the brain
- ▶ Remember your mental health as well
- ▶ Benefits of mindfulness
- ▶ Mindfulness practices
- ▶ Building effective treatment strategies to address dystonia
- ▶ Treat underlying factors (e.g. posture, strength imbalances, flexibility, and balance)
- ▶ Important COVID-19 tips



Why is exercise important during the COVID-19 pandemic?

- ▶ Regular exercise is essential for everyone under normal circumstances, but is especially important during the COVID-19 pandemic
- ▶ Exercise boosts the immune system
 - ▶ Research shows that regular moderate intensity exercise has an immune boosting benefits and may help your body fight off infection
- ▶ Exercise may prevent weight gain
 - ▶ Exercise can help burn extra calories, but you will also want to develop control on the consumption side of the equation, too!
- ▶ Exercise reduces stress and anxiety
 - ▶ Exercise is a proven mood booster and can help adults reduce stress levels and build emotional resilience
 - ▶ May be a GREAT time to complete a family work-out routine
- ▶ Exercise improves sleep
 - ▶ Research shows that regular exercise can help you fall asleep faster and improves your sleep quality



How can I stay physically active despite COVID-19 closures?

- ▶ Work slowly
- ▶ Believe in yourself ... set goals
- ▶ Breathe deeply
- ▶ Baby step your way through the exercise program ... step by step
- ▶ Take frequent rest breaks
- ▶ Recognize your successes
- ▶ Do as much of our practice routine as you can ... stop and rest when you need to do so
- ▶ It is perfectly OK to just watch the session and then try the exercises and activities on your own another do



Preparing the Brain

- ▶ Mental imagery: in your minds eye ... imagine the optimal movement sequence
 - ▶ Research shows that mental imagery is a robust and potent tool to use
 - ▶ fMRI imaging shows areas of the brain responsible for completing the movement lighting up when completing mental practice
 - ▶ Used frequently by highly skilled athletes ... now being used in various patient populations
 - ▶ Your mind IS a very powerful tool to use



Training the Brain



- ▶ Go slowly and at your own pace today
- ▶ It is OK to watch a portion or all of the session today and try this later
- ▶ Be patient
- ▶ Remember ... you are creating a new or better habit
- ▶ Be encouraged
- ▶ Perform the exercises at your pace
- ▶ Don't be afraid to ask questions today

The Sit TALL Position



- ▶ Scoot halfway out in your chair ... if you can
- ▶ If you cannot ... use back of chair for support or an ObusForme Highback Support Cushion (see picture)
- ▶ Rotate your pelvis forward ... extend up through your spine
- ▶ Sit straight with your shoulders as squared as possible and your head aligned over your shoulders
- ▶ Now tuck your chin and try moving the back of your neck as flat as possible
- ▶ Say Eeeee ... and remember to breath
- ▶ This exercise is especially helpful in improving your sitting posture and postural awareness
- ▶ Begin by completing 1 to 3 of these day per day
- ▶ Once you are able to perform 3 at one time ... try adding a second session (e.g. do in morning and afternoon)



Chin Rotation

- ▶ Sit tall and straight in a chair
- ▶ Let your head slowly move towards your chest
- ▶ Take a deep breath in ... and now relax (“smell the rose ... and blow out the candle”)
- ▶ Now slowly rotate your head to the right side and then slowly back to the left side as if your chin is tracing a “smile”
- ▶ This exercise is especially helpful for muscle tightness at the back of the head
- ▶ Begin by completing 1 to 3 of these day per day
- ▶ Once you are able to perform 3 at one time ... try adding a second session (e.g. do in morning and afternoon)



Bend and Hang

- ▶ Sit tall and straight in a chair
- ▶ Widen your feet apart
- ▶ Slowly bend forward using your legs as a support and guide
- ▶ Let your head hang while counting slowly to 10
- ▶ Now return to sitting slowly back into the optimal sitting posture with your back straight and your shoulders as squared as possible and your head aligned over your shoulders
- ▶ If your head or body pulls hard or jerks while attempting this movement, then stop, go back down and try again
- ▶ This exercise is especially helpful for muscle tightness at the back of the head
- ▶ Begin by completing 1 to 3 of these day per day
- ▶ Once you are able to perform 3 at one time ... try adding a second session (e.g. do in morning and afternoon)



Reach for the SKY

- ▶ Sit tall and straight in a chair with you feet apart (hip width)
- ▶ Reach one hand up to the sky slowly while the other arm is hanging down toward the floor
- ▶ Keep head relaxed and chin tucked
- ▶ Now reverse and stretch the other arm up toward the sky
- ▶ Try counting slowly to 10
- ▶ To increase the stretch ... have the arm hanging down reach for the floor at the same time you are reaching for the sky
- ▶ This exercise is especially helpful for muscles tightness in the trunk and upper extremity
- ▶ Begin by completing 1 to 3 of these day per day
- ▶ Once you are able to perform 3 at one time ... try adding a second session (e.g. do in morning and afternoon)



Touch Down

- Sit tall and straight in a chair with you feet apart (hip width)
- Reach BOTH hands up to the sky slowly
- Keep head relaxed and chin tucked
- Now try turning your head to the OPPOSITE side of your cervical dystonia
- Try counting slowly to 10
- The goal of this stretch is to increase extension of the whole spinal column
- This exercise is especially helpful for muscles tightness in the trunk and upper extremities
- Begin by completing 1 to 3 of these day per day
- Once you are able to perform 3 at one time ... try adding a second session (e.g. do in morning and afternoon)



Exercise for Rotational Dystonia

- ▶ Sit tall and straight in a chair with you feet apart (hip width)
- ▶ Lightly place your finger tips on the back of your head
- ▶ Rotation with hands behind your head
- ▶ Rotate as far as you can in the direction OPPOSITE your cervical dystonia
- ▶ Don't hold your breath ... and try to relax
- ▶ Your trunk and arms should remain steady during this motion
- ▶ Begin by completing 1 to 3 of these day per day
- ▶ Once you are able to perform 3 at one time ... try adding a second session (e.g. do in morning and afternoon)




Strengthening the Antagonist (“David”) to Countermand the Agonist (“Goliath”)

- ▶ Learning to contract the muscle that corrects the dystonia
- ▶ Repeating contraction of these muscles
- ▶ Learning how to hold your head or body in straight or stable positions voluntarily
- ▶ Maintaining a correct head posture or body posture during everyday activities
- ▶ Perform several times per day for 10 to 15 minutes



Sensory Tricks for Carryover Training

- ▶ Finger at side of nose
- ▶ Finger on mastoid process (behind ear)
- ▶ Finger on chin
- ▶ What are some of YOUR sensory tricks
- ▶ During the COVID-19 pandemic trying touching while wearing a face mask or gloves
- ▶ Use hand sanitizer or wash your hands prior to and after performing a sensory trick if you directly touch your face
- ▶ Sing “Happy Birthday to You ... “ while washing your hands to ensure you are washing for the appropriate period of time



Mirror Therapy – Cervical Sensory Practice

- Sit or stand in front of a mirror
- Deep breath in ... and out (“smell the rose and blow out the candle”)
- Close your eyes ... now move into an erect sitting or standing position
- When you think you have accomplished this position ... open your eyes and evaluate and adjust your posture and position
- Next, sit or stand tall ... deep breath ... close your eyes ... now try moving in the OPPOSITE direction of your dystonia ... open your eyes and evaluate and adjust your posture and position
- This sounds like a very simple exercise, but you are actively teaching your brain how to recognize accurate movements and positions
- Dystonia can also impact you on the sensory side of the equation and not just the motor side



Seated Yoga for Beginners

- ▶ <https://www.youtube.com/watch?v=1DYH5ud3zHo>



Seated Tai Chi for Beginners

- ▶ https://www.youtube.com/watch?v=IKO03x_5OU



Looking After Our Mental Health

- ▶ New realities from working from home, temporary unemployment, home-schooling, and lack of physical contact with other family members or friends can take a toll
- ▶ Keep informed ... but not overwhelmed
- ▶ Have a daily routine
- ▶ Keep personal hygiene
- ▶ Try Zoom (... or FaceTime ...) family sessions ... book clubs ... faith based groups
- ▶ Allocate time for working and time for resting
- ▶ Make time for doing things you enjoy
- ▶ Try virtually getting out by taking a “virtual tour” (e.g. San Diego Zoo, Yellowstone, Washington DC during cherry blossom time) ... see next slide for link options
- ▶ Help each other
- ▶ Be kind
- ▶ Don't be afraid to ask for help when you need it



Virtual Tours



- ▶ San Diego Zoo: <https://www.youtube.com/watch?v=IT3PPHg6vfE>
- ▶ Yosemite National Park: <https://www.nps.gov/media/video/view.htm?id=F8790915-E5C3-6F36-E64E7BEB175886A9>
- ▶ Yellowstone National Park: <https://www.youtube.com/watch?v=WqMNvLbzIIY>
- ▶ San Francisco: <https://www.youtube.com/watch?v=OsG1E9ogYRU>
- ▶ Washington DC during peak cherry blossom season: <https://www.youtube.com/watch?v=PFRNdLgl82s>
- ▶ San Diego 360 Degree Visit: <https://www.youtube.com/watch?v=DhUnr-uucEY>



Benefits of Mindfulness

- ▶ Health
 - ▶ Research shows that regular mindfulness exercises can help manage anxiety and reduce stress
- ▶ Cognitive and emotional regulation
 - ▶ Mindfulness has been shown to promote stronger focus, memory, and problem solving
- ▶ Joy
 - ▶ Mindfulness cultivates agility and flexibility in attention allowing us to more easily focus on pleasant experiences (e.g. blue skies, spring blossoms, laughter)



Mindfulness Practice

- ▶ Practice observing
 - ▶ What you see
 - ▶ What you hear
 - ▶ Smells around you
 - ▶ Urges to do something
 - ▶ Body sensations ... body scan
 - ▶ Thoughts coming in ... thoughts going out
 - ▶ Your breath ... movement of your stomach ... sensations of air in and out
- ▶ Practice describing
 - ▶ What you see outside your body
 - ▶ Thoughts, feelings, and body sensations inside yourself
 - ▶ Your breathing
- ▶ Practice participating
 - ▶ Move to music
 - ▶ Sing along to a favorite song
 - ▶ Sing in the shower
 - ▶ Take a walk and notice at least three things you have not paused and appreciated lately




Get Outdoors ... While Maintaining Social Distancing

- ▶ Try taking a walk around your yard ... neighborhood ... or park
- ▶ Get out and garden
- ▶ Remember to social distance when outdoors and wear use protective equipment (e.g. face masks)



Reducing Your Risk

- ▶ Wash your hands regularly ... while singing Happy Birthday to You ...
 - ▶ Use a face mask when going out
 - ▶ Maintain social distancing
 - ▶ Follow department of health recommendations as we slowly re-open different counties and cities
 - ▶ Be safe ... be well
- 



Summary



- ▶ Measures taken to reduce the spread of COVID-19 are impacting our everyday schedules and disrupting workout routines
- ▶ Exercise is especially important now to help reduce stress, prevent weight gain, boost the immune system, and improve sleep
- ▶ You can safely engage in strategies to promote wellness, improve mindfulness, and safely navigate this very challenging period of time
- ▶ Eating healthy and getting optimal sleep are also important to boost your immune system

References

- Barr, C., Barnard, R., Edwards, L., Lennon, S., & Bradnam, L. (2017). Impairments of balance, stepping reactions and gait in people with cervical dystonia. *Gait and Posture*, 55, 55–61. <http://doi.org/10.1016/j.gaitpost.2017.04.004>
- Byl, N. N., Archer, E. S., & McKenzie, A. (2009). Focal Hand Dystonia: Effectiveness of a Home Program of Fitness and Learning-based Sensorimotor and Memory Training. *Journal of Hand Therapy*, 22(2), 183–198. <http://doi.org/10.1016/j.jht.2008.12.003>
- Crowner BE 2007 Cervical dystonia: Disease profile and clinical management. *Physical Therapy* 87: 1511–1526.
- Capecci, M., Serpicelli, C., Fiorentini, L., Censi, G., Ferretti, M., Orni, C., Ceravolo, M. G. (2014). Postural rehabilitation and kinesio taping for axial postural disorders in Parkinson's disease. *Archives of Physical Medicine and Rehabilitation*, 95(6), 1067–1075. <http://doi.org/10.1016/j.apmr.2014.01.020>
- De Pauw, J., Van der Velden, K., Meirte, J., Daele, U. Van, Truijten, S., De Hertogh, W., Mercelis, R. (2014). The effectiveness of physiotherapy for cervical dystonia: A systematic literature review. *Journal of Neurology*, 261(1), 1857–1865. <http://doi.org/10.1007/s00415-013-7220-8>
- Jahanbazi, A., Chitsaz, A., & Asgari, K. (2013). Effects of EMG Biofeedback on Pain and Quality of Life in Cervical Dystonia. *Journal of Neurological Disorders*, 2(1), 1–6. <http://doi.org/10.4172/2329-6895.1000144>
- Karnath, H. O., Konczak, J., & Dichgans, J. (2000). Effect of prolonged neck muscle vibration on lateral head tilt in severe spasmodic torticollis. *Journal of Neurology, Neurosurgery, and Psychiatry*, 69(5), 658–660. <http://doi.org/10.1136/jnnp.69.5.658>
- Van den Dool, J., Visser, B., Koelman, J. H. T. M., Engelbert, R. H. H., & Tijssen, M. a J. (2013). Cervical dystonia: effectiveness of a standardized physical therapy program; study design and protocol of a single blind randomized controlled trial. *BMC Neurology*, 13(1), 85. <http://doi.org/10.1186/1471-2377-13-85>
- Wulf, G., & Lewthwaite, R. (2016). Optimizing Performance through Intrinsic Motivation and Attention for Learning: The OPTIMAL theory of motor learning. *Psychonomic Bulletin & Review*, 22(6), 1–35. <http://doi.org/10.3758/s13423-015-0999-9>
- Zetterberg, L., Halvorsen, K., Färnstrand, C., Aquilonius, S.-M., & Lindmark, B. (2008). Physiotherapy in cervical dystonia: six experimental single-case studies. *Physiotherapy Theory and Practice*, 24(786945523), 275–290. <http://doi.org/10.1080/09593980701884816>