

**Managing Sleep Problems during COVID-19****DEFINITION****APPROACH****APPLICATION****TREATMENT****COMMENTS****References** **Johns Hopkins Psychiatry Guide**

## Managing Sleep Problems during COVID-19

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### DEFINITION

- **What is COVID-19?**
  - COVID-19, also known as 2019-nCoV or SARS-CoV-2, is a positive sense, single-strand enveloped RNA virus of the family Coronaviridae that is the cause of the pandemic in late 2019 and currently ongoing in 2020. It primarily causes upper and lower respiratory tract infections.
- **What is stress?**
  - The body's response to a physical or emotional demand
  - A universal experience that may be due to daily responsibilities (i.e., school, work, family), a negative change (i.e., losing a job, divorce, or illness), or a traumatic event (i.e., viral pandemic, war, assault, or natural disaster)
    - Traumatic events may be associated with distressing emotional and physical symptoms of stress such as fear or sadness, changes in sleep or eating patterns, irritability, fatigue, intrusive memories, hyperarousal, and tobacco and alcohol use.
- **What is sleep disruption?**
  - Insufficient sleep to support adequate alertness, performance, and health, either because of reduced total sleep time or fragmentation of sleep
  - Individuals with sleep disruptions often worry about sleep.
  - Sleep disruption can increase cortisol levels, which may amplify the effects of stress on the body.
  - During this time of uncertainty, it is likely that individuals - especially frontline medical workers and essential employees - may experience more sleep disruption and increased stress.
- **What is the impact of stress on sleep?**
  - Stress can release cortisol and adrenaline, which can lead to sleep disruptions and a reduction in restorative sleep.
  - Sleep disruption can suppress the effectiveness of the immune system and increase susceptibility to infections.
- Stress and sleep have a bidirectional relationship meaning sleep disruption can reduce stress tolerance; and stress may disrupt sleep.

### APPROACH

- It is important to remember that intermittent sleep disruption is common.
  - In a 2017 sleep survey - before COVID-19 – 75% of adult participants reported experiencing stress in the past month.
  - Stress resulted in sleepless nights at least once in the previous month.
- Why is it important to manage sleep during COVID-19?
  - Good sleep helps to promote mental and physical wellbeing and helps maintain an effective immune system.
- **It takes work to maintain good sleep.**
  - Simple behavioral sleep strategies and relaxation techniques can help.

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- **Suggestions to Promote Good Sleep During COVID-19**
  - **Wake up at a consistent time:** Having a consistent wake-up time can help entrain your circadian clock, which is important because it can give consistency to your sleep patterns.
    - Consider scheduling virtual work meetings on weekday mornings and virtual social meetings with friends or family on weekends.
  - **Don't go to bed until sleepy:** Going to bed when you feel sleepy (as opposed to just when you feel tired) and maintaining a consistent rise time will help you figure out how much sleep your body needs. This will help you figure out an ideal bedtime.
  - **Be mindful of the effects of light on sleep:** Light helps synchronize your circadian/biological clock day and night cycles of earth.
    - The blue and green light from your phones, tablets, and computer screens can shift your sleep wake circadian rhythm to later at night.
    - Bright light and blue/green light at night can negatively affect the body's natural melatonin production potentially making it difficult to fall asleep.
    - Get at least 30 minutes of natural light prior to midday.
    - Minimize exposure to bright light and blue and green wavelength light at night.
    - Use the blue light filter / night shift setting on all of your electronic screens in the evening.
    - Try to "unplug" (i.e., smart phones, tablets, and computers) about 1.5 to 2 hours before going to bed. Television is okay as long as you are seated far enough away. It also helps to dim/soften the lighting in your home.
  - **Get enough sleep:** Adults average 6 to 9 hours of sleep per night. The American Academy of Sleep Medicine recommends that adults try to obtain around seven hours of sleep per night.
    - Many people sleep well but don't get enough sleep due to a busy lifestyle or being "plugged in" all of the time.
    - Being homebound during COVID-19 may provide an opportunity to get a little more sleep. If that is your goal, try to increase your sleep gradually by going to bed 15 minutes earlier each week using how sleepy you feel as a guide.
  - **Limit alcohol and other drug use**
- **Suggestions for Managing Stress during COVID-19**
  - Maintain a routine at home.
  - Boost your resilience.
  - Identify irrational and negative thoughts, and challenge those negative thoughts.
    - Strive to maintain a balanced perspective.
    - Acknowledge that you may not be as productive or efficient as you normally would be, particularly if you have young children or are caring for sick or elderly loved ones.
    - An example is changing the thought "I am all alone and never going to get through this" to "Many of us are facing similar difficulties, and we will get through this."
- **Evidence-based Techniques that Promote Relaxation**
  - Stress reduction "shuts off" the release of stress hormones, decreases blood pressure, slows down your heart beat, and helps to dissipate muscle tension.
  - Compare and contrast the feeling of the presence and absence of tension during relaxation exercises to spot growing tension. This can help reduce stress before it feels out of control.
  - **Yoga**
  - **Tai Chi**
  - **Mindfulness meditation**
  - **Deep breathing exercises:**
    - Find a quiet place, remove distractions, sit down in a comfortable position and clear your mind. It may help to close your eyes.
    - Visualize yourself using your diaphragm muscle (dome-shaped muscle hugging the bottom of your rib cage) to draw air into your lungs filling them from the bottom up.
    - Take a slow, deep breath by inhaling through your nostrils and holding the breath for about five seconds.

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- Slowly exhale through your mouth using your diaphragm muscle to expel the breath.
- Continue to breathe in this manner for about 5 to 10 minutes. Throughout this exercise, remain focused on your breath.
- If you'd like, repeat to yourself, "Breathing in I am calm, breathing out I am coping."

- **Progressive muscle relaxation:**

- Find a quiet place, remove distractions, and sit in a comfortable position.
- Take a few gentle breaths, in and out.
- Begin tensing groups of muscles one at a time. For example, begin with your arms including your forearms, biceps, triceps and shoulders.
- When you tighten a muscle, tighten only that muscle. Do not involve other muscle groups.
- Contract or tense your muscles about 75%. Hold the contraction for about five seconds. Focus on the sensation of what your muscles feel like when they are tense (for example, tight or warm).
- Then, rapidly release the tension all at once.
- Now, focus on what the absence of tension feels like in a particular muscle group. Compare and contrast the absence of tension with the presence of tension.
- Notice how relaxed the muscle feels. Before proceeding to the next muscle group; take a deep breath.
- Proceed to tense and relax the different muscle groups of your body. Continue with the muscles of your legs, followed by your torso (tensing your abdominal muscles and back muscles), and finish with your facial muscles tightening the top part of your face followed by the bottom half of your facial muscles.
- Repeat for any areas that are still tense.
- Skip any muscle group that causes pain or discomfort.

- **Suggestions for patients with children**

- Adolescents may have worries about school, sports, and social connections.
- Children may experience difficulty falling or staying asleep, have nightmares, ask their parents to sleep with them, or try to avoid going to bed during COVID-19.
- In addition to trouble sleeping parents should monitor for symptoms that may indicate that a child is stressed or has anxiety.
  - Decreased appetite
  - Headaches
  - Bedwetting
  - Upset stomach or abdominal pain
  - Inability to relax
  - Aggressiveness or stubbornness
  - Inability to control emotions
  - Unwillingness to engage in family or school activities

## TREATMENT

- Ongoing [sleep disruption](#) can give rise to a vicious cycle of anxiety and insomnia and in some cases result in chronic insomnia (i.e., sleep disruption at least 3 times per week for 3 months).
- If sleep hygiene and stress reduction exercises are not sufficient, patients may benefit from [psychological and behavioral interventions](#) or [sleep aids](#) prescribed by a clinician.
- Cognitive behavioral therapy for insomnia (CBT-I) is an evidence-based psychotherapy recommended as first-line treatment for [insomnia disorder](#).
  - CBT-I helps patients change their negative thoughts and sleep-related behaviors that affect their sleep patterns.
- Insomnia can exacerbate or precipitate other psychiatric disorders. Providers may need to concurrently address the following:
  - [Major depressive disorder](#)
    - In an emergency in which an individual is at moderate-to-high risk of suicide or has attempted suicide, call 911 and do not leave the patient alone.

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- [Generalized anxiety disorder](#)
  - Substance use disorder
  - [Panic disorder](#)
  - [Acute stress disorder](#)
  - [Post-traumatic stress disorder](#)
  - [Adjustment disorder](#)
- When to refer:
    - Refer patients to a sleep medicine specialist such as a pulmonologist, neurologist, or psychiatrist if history suggests obstructive sleep apnea, restless legs syndrome, periodic limb movement disorder, or other comorbid conditions.
    - Refer patients to a behavioral sleep medicine specialist such as a psychologist or psychiatrist if sleep disturbances are associated with mood symptoms, changes in personality, or impaired social or occupational functioning.
    - Refer when increasing amounts of medications or alcohol are required for sleep.
    - Refer to a psychiatrist if patient has comorbid major depressive disorder, substance abuse, anxiety disorder, acute stress disorder, or post-traumatic stress disorder.

## COMMENTS

- CBT-I Coach is a free mobile app created by the Veteran Affairs (VA's) National Center for PTSD and designed for use alongside face-to-face care with a healthcare professional; and can be used on its own.
- Many providers have converted to tele-medicine practices during [COVID-19](#).

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Accessed on April 6, 2020.

Last updated: April 21, 2020

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