Know more about

"Five tips for maintaining good sleep habits while staying at home and avoiding outings"

1. Purpose of creating this brochure

With the outbreak of the novel coronavirus infectious disease (COVID-19), local governments are requesting that people refrain from going out and they are taking measures to temporarily close schools in Japan. Under these circumstances, increased stress and time spent at home can easily disrupt sleep habits, causing problems such as insomnia and disrupted sleep-wake rhythms.

Many studies have reported that ensuring good sleep contributes to maintaining and improving mental and physical health. Numerous studies have also reported that sleep problems have a negative effect on mental and physical health. Under these circumstances, the Edogawa University Sleep Research Institute thought that it would be helpful to provide handy information on the maintenance of good sleep habits based on scientific evidence.

2. Intention of creating this brochure

This brochure is intended for people who are suddenly compelled to change their lifestyles and stay at home with the outbreak of COVID-19 and to help them deal with insomnia and sleep-wake rhythm disturbances that are likely to occur in such situations. In addition, this brochure consists of content that is applicable to all ages, from children to the elderly, and is easy to incorporate in their daily life.

Note that this brochure does not intend to explain how to treat clinically significant sleep problems or sleep disorders that are not associated with lifestyle changes. It is only intended to prevent sleep problems associated with lifestyle changes and to provide advice that can prevent the problems from exacerbating. If you still have sleep problems, after following the advice here, we recommend that you consult a medical institution specialized in sleep medicine.

3. Using this brochure

Please download and print freely, regardless of the purpose, such as by posting this at places where people gather or notifying people you know about its contents. However, please do not modify the content.

If you can present this brochure on some websites, please do not upload the PDF file itself; show the link to the site "Five tips for maintaining good sleep habits while staying at home and avoiding outings" in the website of Edogawa University Sleep Research Institute, described below.

Edogawa University Sleep Research Institute:
"Five tips for maintaining good sleep habits while staying at home and avoiding outings"
URL： https://www.edogawa-u.ac.jp/facility/sleep/sleeptips.html

4. Explanation of the contents of the five tips

(1) Preamble

If you spend more time at home, such as working at home or taking leave from school, you may be more likely to have sleep problems. For example, according to a study by the Eurofound & the International Labour Office (2017), people who work using information and communication technology in places other than offices, such as homes, experience insomnia more than those who work in offices; insomnia has been reported to be associated with severer stress[1]. In addition, a study comparing the sleep habits of children on school days to those during long-term vacation revealed that they showed a longer sleep length, delayed sleep-wake cycle, longer sleep latency, and more frequent sleep interruption during long vacations[2].

There are various studies on the relationship between insomnia, a disturbed sleep-wake cycle, and health (e.g., Harvard Mental Health Letter, 2009)[3].

(2) Tip 1: Wake-up as usual and open a curtain

It is important to wake up at the same time as a normal weekday to avoid disturbing the sleep-wake cycle. Sleep is controlled by homeostasis and circadian rhythm[4]. Homeostasis is a mechanism through which sleep restores the brain functions. The circadian rhythm mechanism also plays a role by causing the sleep-and-wake cycle through a biological clock in the brain. These two mechanisms work together to control our sleep-and-wake cycle.

If wake time is delayed, sleepiness, which is caused by the homeostasis mechanism, is reduced, and the circadian rhythm mechanism is also disturbed as well. Therefore, it is important to get up at the same time in the morning. Also, as the time spent at home increases, the internal clock in the brain becomes more disturbed. The period of the circadian clock in the brain is not precisely 24 hours. The clock is adjusted in synchronization with various cycles of the outside world. Specifically, light is considered to be the most powerful synchronizer (a time cue to the biological clock). When we are exposed to light early in the morning, our biological clock advances (earlier sleep). Conversely, when we are exposed to light in the evening and night, our biological clocks are delayed easily (later sleep) [5]. Waking up as usual in the morning and taking in sunlight will help you to sleep better at night.

(3) Tip 2: Avoid taking a long nap

Short naps can help improve daytime sleepiness and improve your work efficiency if you are sleepy during daytime[6]. However, you should never take long daytime naps. Taking a long daytime nap will not only have adverse effects on nighttime sleep by disrupting sleep-wake rhythms, but it will also make you even more drowsy after waking up from the nap. The optimal time of a short nap depends on your age and several conditions, but if you are young, it may be about 10 to 15 minutes, and if you are an elderly person, it may be a little longer, about 20 minutes[6].

(4) Tip 3: Use your bed only when you sleep at night

You may work at a desk and sleep on the bed in the same room. In such cases, you may do your work or study lying on your bed. It is thought that if you continue to work or study on the bed, your brain would recognize and memorize that "the bed = a place to wake up / place to work" based on the theory of the classical conditioning mechanism[7]. Once such conditioning is established, lying on the bed will increase your arousal level. In order for your brain to recognize and memorize that "the bed = a place to sleep and a place to spend time calmly", use the bed only when you sleep at night, and if you can't fall asleep, get out of bed and spend time calmly until you feel sleepy.

(5) Tip 4: Clearly separate daytime and nighttime life

The circadian clock in the brain adjusts its time to various time cues of the outside world. Staying home for a certain period of days makes your biological clock delayed and disturbed because you tend to be away from the daily light cycle of the sun, such as bright at daytime and dark at night. Disturbed body clocks make it difficult to sleep at night and to get up in the morning. For this reason, it is important for the person staying home to take in sunlight and spend active time during daytime and to have quiet time in the evening apart from strong artificial light and your laptops or smartphones. Light acts as a time cue through your visual system. You should spend your time in a sunny place during daytime. However, be aware that looking directly at the sun is dangerous to your eyes. In addition, it has been pointed out that the artificial night light delays your biological clock and suppresses the secretion of the biological rhythm related hormone (melatonin). These effects are known to be stronger in children[8]. After the evening, darken the room and spend time relaxing.

(6) Tip 5: Don't worry if you can't sleep well for a couple of days

Insomnia symptoms caused by stress are a normal mental and physical response. Even in the absence of major changes in life, insomnia itself is relatively common. One out of two or three people is reported to "have experienced insomnia symptoms in the past month"[9]. When you experience insomnia, you may "make strong efforts to fall asleep", these efforts result in you lying fully awake in the bed or going to bed early in the night even if you are not feeling sleepy which makes your brain recognize and memorize "the bed = place to wake up / place to work". If you are too concerned about insomnia symptoms, insomnia may become chronic. Please think, "Sometimes you can't sleep because your life has changed, and it's natural," so, the next day, get up as usual in the morning and don't take a long nap. If you stay awake during daytime the next day, "earlier" and "stronger" sleepiness would occur the next night and make it easier to sleep.

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