



PRESS RELEASE

23 FEBRUARY 2023 | FOR IMMEDIATE RELEASE

Take a 30-minute afternoon nap for a mid-day refresh and memory boost

Singapore, 23 February 2023 – Naps are short periods of sleep that occur outside a main nocturnal period that are differentiated from bouts of uncontrollable and unintended sleep. The latter may underlie significantly inadequate nocturnal sleep, jetlag, a sleep disorder, or a neurological condition.

Voluntary naps in contrast, serve as an intended midday refresh that can enhance learning and productivity. “Many know the benefits of napping, but the pressure to optimise time in the workday poses constraints for some on the practicality of napping regularly,” explained Dr Ruth Leong, Research Fellow from the Centre for Sleep and Cognition at the Yong Loo Lin School of Medicine, National University of Singapore (NUS Medicine), when outlining the motivation for the study.

Is there a recommended duration for a mid-afternoon nap that achieves a balance between practicability and meaningful benefits?

This question was addressed in a study led by Dr Ruth Leong and Prof Michael Chee of the Centre for Sleep and Cognition at NUS Medicine, and published in leading journal [SLEEP](#). Following their usual amount of sleep at night, 32 young adults underwent four experimental conditions: wake, a 10-minutes nap, a 30-minutes nap, and a 60-minutes nap on separate days.

The researchers compared sleep time measured objectively with polysomnography rather than just the amount of time provisioned for the nap. This allowed for unambiguous decision-making about how long one should allocate for a nap, taking into account the average time taken to fall asleep. Mood, subjective sleepiness, cognitive performance were measured at intervals of five minutes, 30 minutes, 60 minutes and 240 minutes after waking from the mid-afternoon naps in order to compare how sustained the respective nap benefits were. The effect of these nap lengths on memory encoding was also examined.

On average, participants took 10 to 15 minutes to fall asleep. Compared to wake, all nap durations ranging from 10 to 60 minutes had clear benefits for positive mood, subjective sleepiness, and alertness that lasted up to 240 minutes post-nap, suggesting that even a short 10-minutes can act as a midday refresh. However, of the nap durations, only the 30-minutes nap had benefits for memory encoding, indicating that minimally, 30 minutes may be needed for benefits to memory.

Improvements for vigilance were moderate, and benefits for speed of processing were not seen. Sleep inertia, the grogginess just after waking that can manifest as temporary

decrements in performance, was only observed for the 30 to 60 minutes naps. Even so, decrements were minimal and were resolved within 30 minutes of waking.

While no clear 'winning' nap duration was found, a 30-minute nap appears to have the best trade-off between practicability and benefit. 30 minutes may be the duration to recommend for a mid-afternoon nap, while provisioning an additional ~10 minutes to fall asleep.

The work was supported by the National Medical Research Council, National Research Foundation, the Yong Loo Lin School of Medicine and the Lee Foundation and is part of a strategic effort to unlock human potential.

For media enquiries, please contact:

Amanda YAP
Assistant Manager, Communications
Yong Loo Lin School of Medicine
National University of Singapore
Tel: +65 8157 0881
Email: medajiy@nus.edu.sg

Sally TOH
Head, Communications
Yong Loo Lin School of Medicine
National University of Singapore
Tel: +65 8100 4781
Email: sally.toh@nus.edu.sg

About National University of Singapore (NUS)

The National University of Singapore (NUS) is Singapore's flagship university, which offers a global approach to education, research and entrepreneurship, with a focus on Asian perspectives and expertise. We have 16 colleges, faculties and schools across three campuses in Singapore, with more than 40,000 students from 100 countries enriching our vibrant and diverse campus community. We have also established our NUS Overseas Colleges programme in more than 15 cities around the world.

Our multidisciplinary and real-world approach to education, research and entrepreneurship enables us to work closely with industry, governments and academia to address crucial and complex issues relevant to Asia and the world. Researchers in our faculties, research centres of excellence, corporate labs and more than 30 university-level research institutes focus on themes that include energy; environmental and urban sustainability; treatment and prevention of diseases; active ageing; advanced materials; risk management and resilience of financial systems; Asian studies; and Smart Nation capabilities such as artificial intelligence, data science, operations research and cybersecurity.

For more information on NUS, please visit www.nus.edu.sg.

About the NUS Yong Loo Lin School of Medicine (NUS Medicine)

The NUS Yong Loo Lin School of Medicine is Singapore's first and largest medical school. Our enduring mission centres on nurturing highly competent, values-driven and inspired healthcare professionals to transform the practice of medicine and improve health around the world.

Through a dynamic and future-oriented five-year curriculum that is inter-disciplinary and inter-professional in nature, our students undergo a holistic learning experience that exposes them to multiple facets of healthcare and prepares them to become visionary leaders and compassionate doctors and nurses of tomorrow. Since the School's founding in 1905, more than 12,000 graduates have passed through our doors.

In our pursuit of health for all, our strategic research programmes focus on innovative, cutting-edge biomedical research with collaborators around the world to deliver high impact solutions to benefit human lives.

The School is the oldest institution of higher learning in the National University of Singapore and a founding institutional member of the National University Health System. It is one of the leading medical schools in Asia and ranks among the best in the world (Times Higher Education World University Rankings 2022 by subject and the Quacquarelli Symonds (QS) World University Rankings by subject 2021).

For more information about NUS Medicine, please visit <https://medicine.nus.edu.sg/>.