

Is good sleep a blessing for ageing? (Week 1)

老唔惱：一夜好眠對長者來說是祝福嗎？

Demand on Your Care: Is Good Sleep a Blessing for Ageing?

全世界的高齡人口正在增長中，在過去 50 年間，高齡人士增加了三倍，到 2050 年更將進一步增長至現在的三倍。長者普遍都有睡眠問題，逾半數表示入眠或維持睡眠狀態有困難。研究顯示，高齡者的睡眠失調來自不同因素，包括生理時鐘的改變，伴隨年齡增長而越趨普遍的慢性病，以及老化過程中常見的心理與社會因素改變。

The world's population of older adults is growing. In the past 50 years, the number of older adults has tripled, and it will triple again by 2050. Sleep complaints are prevalent among older adults, with over 50% reporting difficulty initiating or maintaining sleep. Findings suggest that sleep complaints in older adults are due to multiple factors, including changes in circadian rhythms, an age-related increase in the prevalence of chronic medical conditions, and psychosocial changes that commonly accompany ageing.

年齡增長影響著睡眠，人在 40 歲之後，睡眠的模式會有所改變，越來越多半夜甦醒的情況，損害睡眠質素之餘，也會與其他因素互相影響而導致更多甦醒狀況。人們在夜裡甦醒次數越多，早上醒來時越可能感到沒有足夠的休息。隨著年齡增長，淺層睡眠會增多，而且睡眠的時間也會縮短，縱使研究指出高齡者所需要的睡眠時間與年輕人其實並沒有兩樣。


Ageing plays a role in sleep. Sleep patterns change after people reach age 40. There are many more nocturnal awakenings as people age. The awakenings affect sleep quality and can interact with any other condition that may cause arousals or awakenings. The more awakenings people experience at night, the more likely they will awaken with a feeling of not being rested. As you get older, you sleep more lightly and get less deep sleep. Ageing is also linked to shorter time spans of sleep, although studies show you still need as much sleep as when you were younger.

有關睡眠的迷思

Sleep Myths

長者需要更少的睡眠其實是不正確的。《睡眠醫學》雜誌最近的報導，估計成人要維持最佳的健康狀態，平均需要最少七小時的睡眠。美國的全國睡眠基金會建議成人需要七至九小時的睡眠。儘管年齡增長會改變睡眠的模式，但不會改變我們所需的睡眠量。長者可能因為半夜甦醒的情況變得頻繁而令晚上睡眠時間減少，但他們對睡眠量的需求卻與年輕的成人無異。要確定你或某人究竟要睡多久才算足夠，你必須找出那人需要睡多久才會在起來時感覺到精神煥發和機敏。注意那是需要「高質素」的睡眠才行。

It is false that older people need less sleep. Sleep Medicine has recently estimated that a minimum of 7 hours of sleep is needed on average to support optimal health in adults. The National Sleep Foundation's recommendations that adults require 7–9 hours of sleep. While sleep patterns usually change as we age, the amount of sleep we generally need does not. Older people may sleep less at night due, in part, to frequent night waking, but their need for sleep is no less than that of younger adults. To determine how much sleep, you or another person needs, you really need to figure out how much sleep is required for the person to feel refreshed upon awakening, and alert. Note that the sleep needs to be of "good quality".

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睡眠如何影響健康？

How Sleep Affects Health?


人的一生，每日平均的睡眠時間會隨著歲月而遞減。新生嬰兒每天睡 16 至 20 小時，成人至中年人需要至少八小時的睡眠，而長者雖然也需要達八小時的睡眠，但他們一般難以一覺睡得足夠時數。長者相對年輕人較難維持睡眠狀態，因而會長期受到睡眠不足的困擾。缺乏睡眠可能導致他們在日間活動中不自覺地打瞌睡；而在黃昏才睡午覺也會影響夜間睡眠，可能令失眠情況惡化。了解個人內在的生理時鐘如何與睡眠的驅動力互相影響，和它們如何限制我們出現良好的睡眠狀況，可以幫助人們謀定對策，即使年月漸長也可維持睡眠的質素。

Over a typical lifespan, the amount of time we spend each day sleeping declines. Newborns spend from 16 to 20 hours asleep each day. Adults through middle age need at least eight hours of sleep. Although the elderly may still require up to eight hours, they may struggle to obtain those hours in one block. As older adults are less able than younger adults to maintain sleep, the elderly suffer disproportionately from chronic sleep deprivation. Sleep deprivation may cause individuals to unintentionally nod off during daytime activities. Late afternoon naps can also reduce a person's ability to sleep through the night, thus potentially worsening insomnia. Learning how the internal clock and sleep drive interact, and how they limit when good sleep can occur, can help people devise strategies that will help them maintain quality sleep as they age.

長者患上會影響睡眠的健康問題並不稀奇，常見的問題包括睡眠窒息症、胃液倒流、心臟衰竭、未有治療的痛症、尿頻等。儘管如此，即使沒有任何健康問題，年月增長也會改變睡眠習慣，包括以下情況：

It's not unusual for older adults to develop a physical health problem that affects sleep. Common ones include sleep apnea, gastroesophageal reflux disease, heart failure, untreated pain, and frequent urination. Nevertheless, in the absence of a health problem, ageing changes sleep, that includes:

- 年紀越大睡眠時間越少。有個別研究指，自中年開始，每 10 年會少睡 30 分鐘。
Total sleep time decreases as we age. One study concluded that it decreases by 30 minutes per decade, starting in mid-life.
- 淺睡增多和睡眠更為斷斷續續。快速眼動睡眠（REM）的時間減少，而「睡眠結構」則隨著年齡增長而逐步改變。
Sleep becomes lighter and more fragmented. The amount of time spent in REM sleep declines, and “sleep architecture” otherwise changes a bit as people age.

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- 身體的生理時鐘改變。生理時鐘基本上是指人在晝夜間的規律週期，影響著身體內大部分變化過程。這個生理時鐘由腦部的不同部分、褪黑激素和接觸日光所調節及控制。當年齡增長時，很多人或會將生理時鐘的「睡眠週期」提前，亦即是他們會更早感到困倦想睡，也會更早起床。專家相信生理時鐘的訊息會隨歲月而漸弱，於是人體內部的互相變化協調與晝夜節律等訊息會沒有以往那麼清晰。

The body's inner circadian rhythm changes. The circadian rhythm is basically a daily pattern that affects most processes within the body. It is regulated by certain parts of the brain, by certain hormones including melatonin, and by exposure to daylight. As people age, many seem to advance the "phase" of their circadian rhythm, meaning they get sleepy earlier in the day and wake up earlier. Experts also believe the rhythm signal tends to weaken with age, so there's less of a clear signal organizing the body's processes to be in tune with each other and with the day.

簡單來說，人們隨著年紀增長而睡得少一點、淺一點，是很正常的表現。專家相信大多數長者的睡眠問題，都可能與以下其中一個原因相關：身體健康問題、精神健康問題包括慢性失眠，和情緒與腦相關問題，或受藥物影響。所以如有長者人抱怨睡得很差，不要假設那只是因為「年紀大了」而已。反之，進一步檢查原因非常重要，因為一旦確認導致問題的背後原因，我們往往可以改善那長者的睡眠問題。


In short, it is normal for one to sleep a little less, and less deeply, as one ages. Experts believe that most sleep problems reported by older adults can be related to a physical health problem, a mental health problem which can include chronic insomnia, as well as other problems related to mood or the brain, or a medication effect. So if an older adult complains of poor sleep, never assume it is just "getting old". Instead, it is important to investigate further, as it is often possible to improve a senior's sleep once we identify the underlying problems.

長者睡眠究竟有多大問題？

Sleep in later life, how big a problem is this?

隨著年長，縱使晚上提早躺平在床，我們也會發現輾轉難眠情況變多，也比年輕時更早起床。你可能會發現自己閉上眼睛的時間短了，或在日間也會打瞌睡。本港有 75% 長者有不同程度的睡眠問題，為很多長者或其照顧者的日常生活帶來不同程度的影響和困擾，包括難以入睡、夜裡會在不同時間甦醒、早上太早起來等。

As we age, despite crawling into bed earlier at night, we may find ourselves tossing and turning more and often waking up earlier that we did in our younger years. You may find that you get fewer hours of shut-eye, or you fall asleep during the day. Statistics reveal that 75% of the Hong Kong elderly are facing sleep problems that affect and upset their daily life and their carers to a varying degree. These include difficulties in getting to sleep, waking up at different times during the night and waking up too early in the morning.

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睡眠期間其實有很多事情在身體內發生。睡眠是由快速眼動睡眠（REM）和非快速眼動睡眠（NREM）兩種循環交替出現的睡眠狀態構成。在 REM 狀態期間，你的眼球會向不同方向急速移動，這不會在 NREM 的狀態期間出現。睡眠之初會先進入 NREM，之後便會進入短暫的 REM，然後會出現相互交替的週期。而作夢一般會在 REM 狀態期間發生。

A lot happens in your body while you sleep. When you get your sleep, you cycle between rapid eye movement (REM) and non-REM (NREM) sleep. During REM sleep, your eyes move quickly in different directions. That does not happen during non-REM sleep. First comes non-REM sleep, followed by a shorter period of REM sleep, and then the cycle starts over again. Dreams typically happen during REM sleep.

在非快速眼動睡眠（NREM）期間會發生甚麼事？

What Happens During Non-REM Sleep?

NREM 可循序分為三個睡眠階段，每個階段可以維持 5 至 15 分鐘。你將會經過這三個睡眠階段，才會去到 REM 狀態。

There are three phases of non-REM sleep. Each stage can last from 5 to 15 minutes. You go through all three phases before reaching REM sleep.

第一期（思睡）：雖然眼睛是閉起來的，但也很容易被弄醒。這階段約 5 至 10 分鐘。

Stage 1: Your eyes are closed, but it's easy to wake you up. This phase may last for 5 to 10 minutes.

第二期（淺睡）：你處於淺層睡眠狀態，這時心率和體溫均逐漸下降，身體準備要進入深層睡眠階段。

Stage 2: You are in light sleep. Your heart rate slows and your body temperature drops. Your body is getting ready for deep sleep.

第三期（深睡）：這是深層睡眠階段，較難以弄醒，但如有人叫醒你，將有好幾分鐘都會感到很迷失。


Stages 3: This is the deep sleep stage. It is harder to rouse you during this stage, and if someone woke you up, you would feel disoriented for a few minutes.

在 NREM 的深層睡眠階段，細胞會在修復和生長，身體會重建骨骼和肌肉，並強化免疫系統。

During the deep stages of NREM sleep, the body repairs and regrows tissues, builds bone and muscle, and strengthens the immune system.

一夜好眠不但令我們感到滿足和精力充沛，也是我們作為健康和豐盛一天的基石。因此，找出並改正不良睡眠習慣，可有助長者改善他們的生活質素。

Getting a good night's sleep is not only satisfying and invigorating, but also the foundation for a healthy and productive day. Therefore, identifying and correcting poor sleeping habits can help older adults to improve their well-being and quality of life.

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在全球漸趨老化人口的社會，睡眠困擾是複雜的健康問題，令很多長者的生活質素下降。在香港，有研究訪問了1034名長者有關睡眠習慣和困擾，發現當中75%有間歇性或持續睡眠困擾，而38%有失眠情況。而另一項研究香港普遍人口的失眠普及問題，訪問了5001名18歲或以上華裔成年人，結果顯示失眠情況在最老的受訪年齡層，即60歲或以上最為普遍，達到41.7%。

Sleep disturbance is a complex health problem in ageing global populations with decreasing quality of life among many older people. In Hong Kong, a study examined sleep habits and disturbances among 1,034 elderly individuals, found that 75% of these individuals had occasional or persistent sleep disturbance and 38% had insomnia. A study examined the prevalence of insomnia in the general population of Hong Kong among 5,001 Chinese adults aged ≥18 years and the prevalence of insomnia was highest in the oldest age group, 41.7% of ≥60 years.

根據《睡眠醫學疾病國際分類》第三版，失眠的定義為主觀抱怨入睡困難、無法持續睡眠，或連續三個月每周均有最少三晚會提早醒來，這些狀況並會嚴重影響白天的生活。

According to the International Classification of Sleep Disorders, Third Edition, insomnia is defined as a subjective complaint of difficulty initiating sleep, difficulty maintaining sleep, or early morning awakenings that occur at a minimum of 3 nights per week, for 3 months, and are associated with significant daytime consequences.

長者睡眠失調


Sleep Disturbances in the Older People

睡眠失調泛指所有阻斷睡眠的情況，例如晚上難以入睡或半夜醒來以後就不能再入睡、過早醒來、醒來次數頻密、醒後仍覺得疲累、日間睏倦及難以集中、要倚賴安眠鎮靜藥物才可入睡…等等。這尤其出現於有認知障礙的長者當中。甚或成為將長者住進老人院舍的原因。

Sleep disturbance refers to all cases of disruptions in sleep, including difficulties in initiating sleep at night or the inability to fall back asleep after awaking in the midnight, awaking too early, frequent awakenings, tiredness despite the sleep, daytime sleepiness and problems with concentration, and reliance on sedative hypnotics. This problem is particularly prevalent among the older people suffering from dementia and has become one of the reasons for sending the seniors to residential care homes.

睡眠不足有兩種型式。急性睡眠不足指的是一兩晚出現少於平常的睡眠時間，令人在白天明顯感到不舒服，工作上的認知表現也比平常差。反之，慢性睡眠不足代表長年累月沒有足夠的睡眠，你的警覺性會變低、精神狀態會變差。慢性睡眠不足也往往與長期健康問題扯上關係。

Sleep deprivation comes in two forms. Acute sleep deprivation means getting less sleep than usual over a night or two. This leads to people feeling noticeably worse than usual during the day. They also perform worse on cognitive tasks. Chronic sleep deprivation, on the other hand, means not getting quite enough sleep for weeks, months, or even years. Chronic sleep deprivation is associated with long-term health effects. It reduces your alertness and mental performance.

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劣質睡眠的影響

Impacts of poor sleep

夜間睡眠是用以維持健康的必要生理過程，具幫助促進恢復健康這極其重要的功能。老年與睡眠問題增多和睡眠時間減少都有關聯，意味著睡眠困難對長者是尤其顯著的問題。


Nighttime sleep is an essential physiological process for good health that aids vital restorative functions. Older age is associated with increased sleep problems and shorter sleep duration, which suggests that sleep difficulties could particularly be salient issues among older adults.

睡眠失調，除了會影響長者的睡眠質素外，更會影響他們於日間的精神狀態、心情、認知及反應，間接增加跌倒或意外的風險。研究數據指出，劣等的睡眠質量會令血壓上升、情緒不穩、免疫力下降，誘發發病率，甚至是死亡率上升。

Sleep disturbances affect not just the sleeping quality of the older people, but also their daytime mental alertness, mood, as well as cognitive abilities and responses, which indirectly increase the risks of falling and other accidents. Studies have also shown that sleep problems can cause higher blood pressure and mood swings, weaken the immune system, and increase the incidence, or even mortality, rate.

一項研究顯示，不良的睡眠習慣不單令你疲憊，也可能削弱你的免疫系統和引起抑鬱。匹茲堡大學醫學中心西部精神病學研究所與診所的研究員發現，睡眠受到干擾的病人體內的自然殺手細胞(NKCs)數量會下降，顯示他們的免疫系統變弱，身體更容易受到疾病感染。

A study suggests that poor sleep habits may not only make you tired and irritable in the morning, but may also weaken your immune system and cause depression. Researchers at the University of Pittsburgh Medical Center Health Systems Western Psychiatric Institute and Clinic in Pittsburgh found that patients in their study whose sleep had been disrupted had decreased levels of natural killer cells (NKCs). A decreased NKC count indicates a weakened immune system and a body more vulnerable to illness.

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