

celki

尚健維佳

Celki VitalAire

家居醫療服務

認識 睡眠窒息症 及 睡眠測試

Sleep Apnea & Sleep Study Test
Make it easy



睡得好，感覺更好
Sleep Well • Feel Better

CPAP Therapy
Support Program

安排測試及查詢熱線 Appointment & Enquiry

認識睡眠窒息症

Introduction of Sleep Apnea

睡眠窒息症的分類 Types of Sleep Apnea

正常情況下，暢通的呼吸道讓空氣可自由進出。睡眠窒息症的患者會在睡眠中停止呼吸，這種情況每晚可發生多數百次，每次持續約十秒至數分鐘不等，令患者身體缺氧，經常驚醒，得不到充足的睡眠。

During normal breathing, the airway is clear and open, allowing air to flow freely in and out of the lungs. Sleep apnea patients would stop breathing during sleep. Such events can happen hundreds of times during sleep and each may last for a few seconds to a few minutes.



睡眠窒息症可分為3大類 3 Types of Sleep Apnea

阻塞性睡眠窒息症 Obstructive Sleep Apnea (OSA)

這是最常見的睡眠窒息症。患者的上呼吸道於睡眠時受阻，原因可能是咽喉組織過多或呼吸道的肌肉鬆弛等。空氣不能順利通過呼吸道，引致窒息。

OSA is the most common type of sleep apnea. It occurs when tissues in the throat collapse and block the air flow in and out of the lungs during sleep.



中樞性睡眠窒息症 Central Sleep Apnea (CSA)

因腦部未能有效地把呼吸訊號傳送到有關器官及組織，令睡眠時呼吸間歇性停止而引致窒息。

CSA is resulted as the central nerve system fails to give proper breathing signals to drive the respiratory efforts.



混合性睡眠窒息症 Mixed Sleep Apnea (MSA)

患者同時患上阻塞性及中樞性睡眠窒息症。

MSA is a combination of OSA and CSA.

睡眠窒息症患者常見的病徵 Common Symptoms of Sleep Apnea

- 嚴重鼻鼾並時而停止呼吸
Snoring, interrupted by pauses in breathing
- 經常感覺疲倦
Loss of energy, fatigue
- 經常打瞌睡
Excessive daytime sleepiness
- 早上頭痛
Morning headache
- 不能集中精神、反應變得遲鈍
Loss of concentration, slow in response
- 脾氣變得暴躁
Irritability
- 記憶力衰退
Forgetfulness
- 性機能減退
Sexual dysfunction



若你有多項以上的徵狀，便應及早諮詢醫生。醫生會視乎情況而決定是否安排**睡眠測試**來確定病症及療法。

Consult a doctor as soon as possible if you have several of the above symptoms. **Sleep study** may be arranged for further diagnosis if necessary.

睡眠窒息症潛伏的危機 Dangers of Being Untreated

根據一些臨床研究報告，睡眠窒息症會令患者在睡眠時缺氧，如長時間得不到適當的治療，可令心肺功能受損，增加以下的危機：

Clinical studies indicate that sleep apnea causes oxygen desaturation. Prolonged deficiency in oxygen can cause damage to the normal function of many organs and increase the risk of developing the followings:

- 高血壓
Hypertension
- 中風
Stroke
- 心臟衰竭
Heart failure
- 駕駛時因疲倦而引起交通意外（多6倍機會發生交通意外¹）
Fatigue-related vehicle accidents (6 times more likely to have a car accident¹)
- 心臟病（多2倍機會患致命性心血管疾病及3倍機會患非致命性心血管疾病²）
Heart disease (2 times more likely to have a fatal cardiovascular event and 3 times more likely to have a non-fatal cardiovascular event²)



1. Teran-Santos J., Jimenez-gomez A., & Cordero-Guevara, J. (1999). The association between sleep apnoea and the risk of traffic accidents. *N engl J Med.*, 340(11), 881-3

2. Marin, J.M., Carrizo, S.J., Vicente, E., & Agusti, A.G. (2005). Long-term cardiovascular outcomes in men with obstructive sleep apnoea-hypopnoea with or without treatment with continuous positive airway pressure: an observational study. *The Lancet*, 365(9464), 1046-53.

治療方法

Therapeutic Options

經過睡眠測試後（第9頁），若證實患上睡眠窒息症，醫生會因應病情而處方適合的療法。普遍的療法有幾種：

The data from the sleep study (ref. to p.9) enables the sleep specialist to determine your treatment options. The most common options are:

1 連續正氣壓睡眠呼吸機

Continuous Positive Airway Pressure (CPAP)

患者佩戴鼻罩，透過睡眠呼吸機輸出醫生所處方的預設氣壓，把患者受阻塞的上呼吸道打通，防止窒息。這是目前最有效和最普遍的療法，適合病情輕微至嚴重患者。

CPAP is a device which delivers pressure to nasal cavity by a mask to prevent the upper airway from collapsing. It is the most effective and common way of OSA treatment which is suitable for mild to severe sleep apnea patient.



2 高低正氣壓睡眠呼吸機 BiPAP®

高低正氣壓睡眠呼吸機提供兩種不同的氣壓，吸氣時輸出的氣壓較高，打通患者的上呼吸道，防止窒息。



BiPAP® is a bi-level positive airway pressure system that keeps the upper airway from collapsing by putting higher pressurized air during inspiration and helps users exhale by putting lower pressurized air.

3 牙膠 Oral Appliance

只適用於輕度患者。

Oral Appliance suits for mild OSA patient only.



4 手術 Surgery

醫生為患者切除多餘或造成阻塞的組織，以減輕病情，但並非所有患者都適用，這也不是首選的治療方法。

Physician removes the tissue which blocks the airway, but it may not be suitable for everyone.

5 改善生活習慣 Modification of the Life Style

1. 肥胖人士應減肥，多做運動。
Obese patients should lose weight and do more exercise.
2. 可側睡。
Sleep laterally.
3. 睡前避免喝有酒精成分的飲品及不要服用會肌肉放鬆的藥物。
Patients should avoid taking alcoholic drinking, and should not use sleeping tablets or sedatives.



成功的睡眠窒息的治療因素和服務

Successful Factor of Sleep Apnea Treatment and Services

使用連續正氣壓睡眠呼吸機是治療睡眠窒息症最普遍的方法，但開始時，客戶常遇到呼氣不順、漏氣、無法入睡等問題而放棄治療。其實成功的治療，是非常取決於服務供應商能否提供持續、定期和完善的跟進服務，以確保用戶能達致長期的順應性。

CPAP is the most common treatment option for sleep apnea. However, problems such as discomfort, air leakage, cannot get into sleep, may occur during treatment that customers may give up treatment soonly. In fact, a successful treatment depends a lot on a continuous, regular and comprehensive follow up by services provider.

開始治療

Therapy Commencement

到訪客戶，講解治療詳情、病理及儀器操作。

Understand the therapy, and educate on pathology and device's operation via home visit.



定期家訪

Regular Home Visits

讓客戶了解治療的進度和效果，確保治療順應性。

Understand the effectiveness and progress of treatment, and ensure therapy's compliance.



電話跟進及指導

Telephone Follow Up and Therapy Coaching

指導器材的使用，解決客戶問題。持續鼓勵客戶以達至長期的治療順應性。

Understand therapy progress and resolve problems. Motivate customers to achieve long term therapy compliance.



週年報告

Annual Report

回顧治療進展及成效，改善順應性。

Monitor the therapy progress. Provide coaching for continuous compliance improvement.



甚麼是睡眠測試？

What is a Home Sleep Study?

睡眠測試是臨床診斷睡眠窒息症的最佳方法，若您懷疑患上睡眠窒息症，應儘快諮詢醫生意見。睡眠測試無風險、無痛楚、只需一晚時間。整晚測試的數據可有效分析及診斷您是否患上睡眠窒息症和病情程度如何。

Sleep study is the best way to diagnose sleep apnea. An overnight sleep study can provide an accurate, comprehensive analysis for doctors. It is non-invasive, with no pain and no risk. It only takes one night to complete the study.

家中進行睡眠測試的好處

Reasons for having sleep study at HOME

大部份客戶都選擇在家中進行睡眠測試，原因是：

1. 家中環境較易入睡，並免卻舟車勞頓
2. 醫院排期需時，亦不容易自行選擇測試時間
3. 可彈性選擇測試日期及時間
4. 資深技術員會到您家中進行測試及儀器回收，翌日早上可如常上班
5. 報告直接送到醫護人員手上，可盡快確診病情



Alice 6
睡眠測試儀

Sleep study can be done either at HOME or in hospital, however, most people choose to conduct the sleep test at HOME because:

1. Most people would sleep better at home. It also saves your time from travelling to hospital.
2. A very long waiting queue and rigid testing time at hospital sleep laboratory.
3. Home sleep study allows you to choose the date and time to suit your needs.
4. On-site device setup and collection will be done by experienced technician. You will be able to go to work next morning.
5. A full report will be provided to the medical professional directly for diagnosis as soon as possible.

家中進行睡眠測試的種類

Choices of sleep study at home:

在家中進行睡眠測試可選用全面的睡眠測試儀、無線或便攜式睡眠測試儀。

無線及便攜式診斷儀能使你活動自如，較方便去洗手間。

To conduct a sleep study at HOME, you can choose either full sleep study polysomnogram (PSG), wireless or portable sleep study device for your sleep study at HOME.

Wireless & Portable sleep study device allow you to move around if needed.



便攜式睡眠診斷儀
Nox T3s

無線睡眠診斷儀
Nox A1



便攜式睡眠診斷儀
Watch-PAT



第一晚 First Night:

	腦電圖 Electroencephalogram (EEG)	肌電圖 Electromyogram (EMG)	眼電圖 Electroculogram (EOG)	心電圖 Electrocardiogram (ECG)	覺醒指數 Arousal Index	口鼻氣流量 Oral Nasal Flow	胸腹活動 Chest, Abdominal Effort	腿部活動 Leg Movement	呼吸紊亂指數 Respiratory Disturbance Index (RDI)	睡眠階段 Sleep Stages	鼻鼾 Snoring	血氧飽和度 O ₂ Saturation Level (SaO ₂)	窒息指數 Apnea Hypopnea Index (AHI)
LEVEL I / II : PSG / WIRELESS PSG 全面睡眠測試儀 / 無線睡眠診斷儀	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1. ALICE 6 / NOX A1 🏷️🏷️🏷️	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LEVEL III : PORTABLE DEVICES 便攜式睡眠診斷儀													
2. NOX T3S 🏷️🏷️🏷️	✗	✗	✗	✓	✗	✓	✓	✗	✗	✓	✓	✓	✓
LEVEL III : PORTABLE DEVICES 便攜式睡眠診斷儀													
3. WATCH-PAT 🏷️🏷️	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓
LEVEL III : SELF-MONITORING TEST 基礎睡眠測試													
4. ALICE NIGHT ONE 🏷️	✗	✗	✗	✗	✗	✗	✓ Chest only	✗	✗	✗	✓	✓	✓

如對睡眠測試有任何查詢，請致電 2332 3366 聯絡尚健職員。
If you have any enquiries in sleep study, please contact us at 2332 3366.

第二晚 Second Night:

氣壓滴定測試

Auto Continuous Positive Airway Pressure (Auto CPAP) Titration

完成睡眠測試後，如醫生診斷證實患上睡眠窒息症，您可能需要進行第二晚的“氣壓滴定測試”，讓醫生找出您日後使用睡眠機時的處方度數，以便選購合適的睡眠呼吸機。

測試時，您會整晚戴上連接自動眠呼吸機的鼻罩及血氧分析探頭作測試，以找出打通呼吸道的最佳氣壓。

If you are diagnosed with sleep apnea, you may need to conduct an Auto CPAP titration to determine the optimal pressure for your purchase of CPAP/ BiPAP.

You will wear a mask, which is connected to an Auto APAP machine and oximeter during sleep. This device can detect the optimal pressure, which enable the doctor to prescribe an optimal pressure for your CPAP treatment.

氣壓滴定測試報告包括

Auto CPAP titration records the following parameters

- 使用時間
Total usage hour
- 客戶的最佳處方度數
Optimal pressure
- 使用睡眠呼吸機時的通氣、窒息情況
Apnea hypopnea index when using CPAP
- 使用睡眠呼吸機時的血氧飽和度
Oxygen saturation level when using CPAP



睡眠測試(PSG)及治療流程

Procedures for Sleep Study (PSG) and Therapy

1 諮詢醫生 Seek Advice

如懷疑患上睡眠窒息症，應盡快諮詢醫生，醫生會視乎情況安排睡眠測試。

For suspecting sleep apnea case, seek the advice of a sleep specialist to arrange a sleep study.



2 預約測試 Reservation

預約測試日期、時間。

Confirm the date, time, place (hospital or home).



3 進行睡眠測試 Preparation for Sleep Test

技術員會於晚上到訪進行測試，翌日有專人收回測試儀器。(第6頁)

On site setup by technician will be arranged*.



4 氣壓滴定測試 Auto CPAP Titration*

患者可選擇進行第二晚“氣壓滴定測試”*(第8頁)

You may need to conduct an "Auto CPAP Titration"*.(Page 8)



5 使用睡眠呼吸機進行治療 CPAP Treatment

你可憑處方度數選購合適的睡眠機。(第8頁)

An optimal pressure will be given for you to purchase CPAP / BiPAP device. (Page 8)



6 下載報告 Report Download

醫療器材公司會替您下載及講解睡眠呼吸機報告。

Services provider will download and review compliance CPAP / BiPAP report for you.



7 諮詢醫生 Seek Advice

定期約見醫生覆診，評估治療情況。

Consult with doctor regularly and seek for doctor's comment.



8 定期跟進 Regular Follow-up

醫療器材公司會定期進行電話跟進及家訪，教育及排解用機上的疑難、安排儀器檢查及維修等，確保療程能成功進行。

Regular coaching calls and home visits by service provider for troubleshooting and patient education.



* 選擇性 Optional

睡眠測試前的重要事項* Notes for the Sleep Study

- 1** 在測試當日，您可如常進行日常工作或活動，但請避免午睡。
Maintain your daily activities and avoid taking naps (unless it is part of your usual routine) on the day of your sleep study.
- 2** 午膳後，您亦應避免飲用茶、咖啡或可樂，因這些飲料能影響睡眠。在晚飯後，您亦可盡量減喝水，以減少夜間去洗手間的機會。
Avoid consuming food and beverages containing caffeine such as coffee, tea and coke after lunch. Also limit your water intake after dinner.
- 3** 在測試前六小時內，您亦應避免飲用含酒精的飲料（如有飲用，請告知技術人員）。
Do not have any beverages containing alcohol within six hours of your bedtime. However, if it is part of your usual routine, you may, but please inform our technician.
- 4** 在測試前，您可先洗澡及洗頭，之後請避免使用頭髮定型產品。
男士：請預先剃鬚鬚（羊鬚子和八字鬚子例外）。
女士：請勿化妝。應洗走指甲油，並移除指甲上的裝飾物（如水晶甲）。
You should take a shower / bath, wash and dry your hair before your sleep study. Please do not use any hair products.
For Gentlemen : Shave before the test. Beards and mustaches are Okay.
For Ladies : No cosmetics. Please remove nail polish, nail stickers or other decorations on your fingernail.
- 5** 您亦須告知醫生我們在測試當晚所服用過的藥物及劑量，並避免服用任何安眠藥，因部分藥物會影響睡眠測試的結果。
Please inform your doctor if you are under any medication and the prescribed dosage. Please do not take sleeping pills as sleep enhancing medication may affect the outcome of your study.
- 6** 您可穿著鬆身舒適的衣物進行測試（胸前開鈕之衣物更佳）。
Please wear comfortable sleeping clothing for the sleep study. Shirt which opens in the front is most preferable.

更改測試日期 Change of Appointment:

若因事需要改期或有其他查詢，可致電81004380，與睡眠診斷及技術支援部聯絡。
If you want to change your appointment or have any enquiry, please contact us at 8100 4380.

設有睡眠測試的私家醫院 Private Hospital with Sleep Test

浸會醫院 Hong Kong Baptist Hospital	2339 8888	明德醫院 Matilda Hospital	2849 0111
寶血醫院 Precious Blood Hospital	3971 9900	養和醫院 Hong Kong Sanatorium and Hospital	2572 0211
聖德肋撒醫院 St. Teresa's Hospital	2200 3434	聖保祿醫院 St. Paul's Hospital	2890 6008
香港港安醫院 Hong Kong Adventist Hospital	3651 8888	荃灣港安醫院 Tsuen Wan Adventist Hospital	2276 7676
嘉諾撒醫院 Canossa Hospital	2522 2181	沙田仁安醫院 Union Hospital	2608 3388
		播道醫院 Evangel Hospital	2711 5221

自我檢測 STOP-BANG Questionnaire

STOP-BANG 阻塞性睡眠窒息症評估問卷為評估患上阻塞性睡眠窒息症風險的測試^(a)。它包括 8 條簡單是非題。

The Stop-Bang Questionnaire is a test used to assess the risk of having an OSA^(a). It consists of eight simple Yes/ No questions.

STOP-BANG 阻塞性睡眠窒息症評估問卷 STOP-BANG Questionnaire

- | | 是 / YES |
|--|--------------------------|
| 1. 您打鼾的聲音大嗎（比說話大聲或者隔著門都可以聽到）？
Do you snore loudly (louder than talking or loud enough to be heard through closed doors)? | <input type="checkbox"/> |
| 2. 您會否經常感到疲倦，精疲力竭或在白天也會昏昏欲睡嗎？
Do you often feel tired, fatigued or sleepy during daytime? | <input type="checkbox"/> |
| 3. 有其他人觀察到您在睡眠中有停止呼吸嗎？
Has anyone observed you stop breathing during your sleep? | <input type="checkbox"/> |
| 4. 您有高血壓或者正在進行高血壓的治療嗎？
Do you have or are you being treated for high blood pressure? | <input type="checkbox"/> |
| 5. 您的身體質量指數(BMI)超過了35 kg/m ² (非亞洲人)或30kg/m ² (亞洲人)嗎？ ^(b)
BMI more than 35kg/m ² (Non-Asian adults) or 30kg/m ² (Asian adults) ? ^(b) | <input type="checkbox"/> |
| $\text{身體質量指數(BMI)} = \frac{\text{體重Weight (公斤kg)}}{\text{身高Height (米m)}^2}$ | |
| 6. 您超過 50 歲了嗎？
Age over 50 years old ? | <input type="checkbox"/> |
| 7. 您的頸圍超過了 15.7" / 40cm嗎？
Neck circumference greater than 15.7" / 40cm? | <input type="checkbox"/> |
| 8. 您是男性嗎？
Gender male? | <input type="checkbox"/> |

評估結果 Result

答“是”的數目為

5 - 8 題：您似乎有高度風險患上睡眠窒息症。

3 - 4 題：您似乎有中度風險患上睡眠窒息症。

0 - 2 題：您似乎有低度風險患上睡眠窒息症。

No. of Yes

5 - 8 : It seems that you have a high risk of OSA.

3 - 4 : It seems that you have an intermediate risk of OSA.

0 - 2 : It seems that you have a low risk of OSA.

(a) Chung F, Subramanyam R, Liao P. et al. High STOP-Bang score indicates a high probability of obstructive sleep apnoea, Br J Anaesth. 2012;108(5):768-75.

(b) Validation of the STOP-BANG Questionnaire among Patients Referred for Suspected Obstructive Sleep Apnea. (n.d.). Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4008971/>

這份小問卷只供參考之用，要得到準確的分析，最好是請教醫生。

This test is for reference only. Please consult your physician for further information.



全線門市 Centre Locations

香港區 Hong Kong

銅鑼灣店 Causeway Bay

軒尼詩道 489 號銅鑼灣廣場 1 期 21 樓 2102 室
Shop 2102, 21/F, Causeway Bay Plaza, Phase 1,
489 Hennessy Road, Causeway Bay

☎ 2915 3388 📞 Whatsapp: 9482 2116

中環店 Central

皇后大道中 33 號萬邦行 10 樓 1005 室
Room 1005, 10/F, Melbourne Plaza,
33 Queen's Road Central, Central

☎ 2522 6811 📞 Whatsapp: 9482 0006

九龍區 Kowloon

旺角店 Mongkok

彌敦道 688 號旺角中心第一座 19 樓 1920 室
Room 1920, 19/F, Argyle Centre (Phase 1),
688 Nathan Road, Mongkok

☎ 2395 2300 📞 Whatsapp: 9380 1513

長沙灣店 Cheung Sha Wan

九龍長沙灣荔枝角道777號田氏企業中心21樓
21/F, Tins Enterprises Centre, 777 Lai Chi
Kok Road, Cheung Sha Wan

☎ 2332 3366 📞 Whatsapp: 9380 1987

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