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2012

Singapore Sleep Awareness Week

Sleep for All Ages

www.singaporesleepsociety.org/ssaw2012

Your Guide to Healthy Sleep for A Better Life

Organised by:

Singapore Sleep Society

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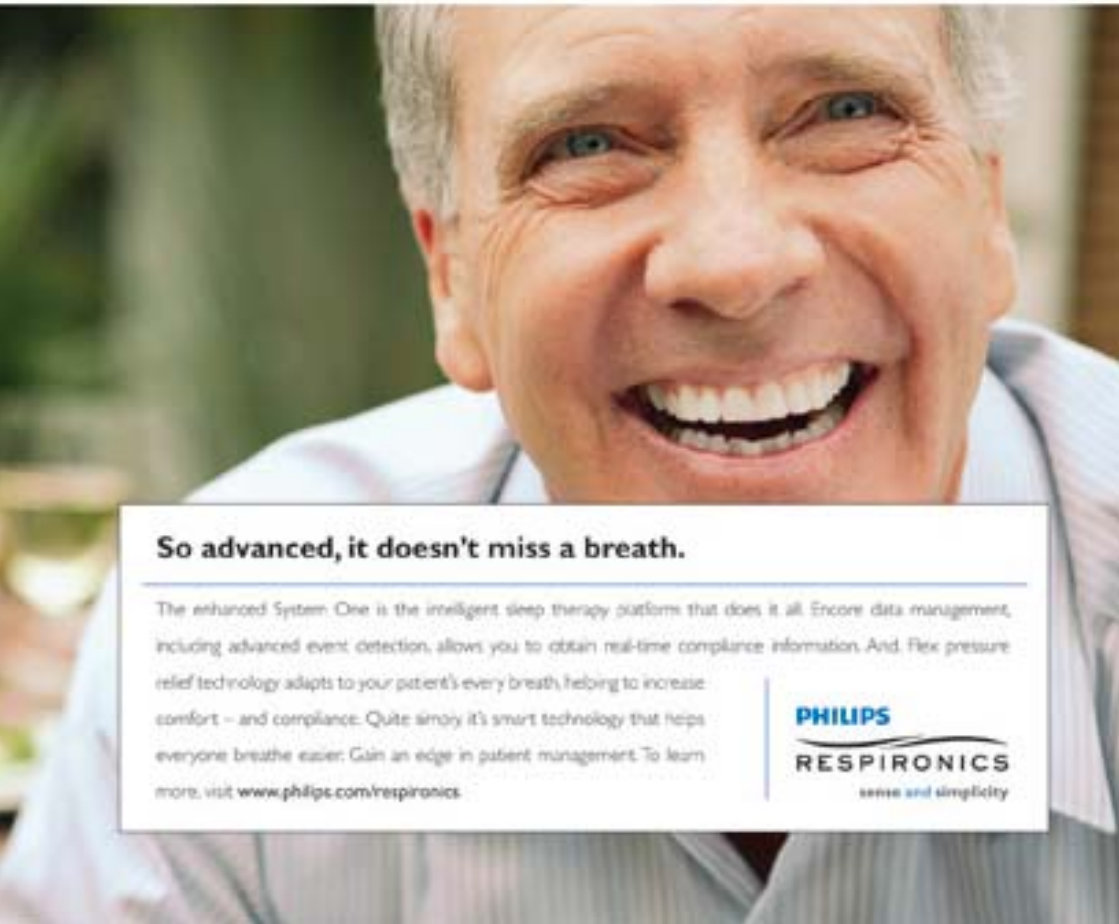

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The Singapore Sleep Awareness Week returns!

Following the success of the inaugural campaign held in 2010, the Singapore Sleep Society is pleased to present the **Singapore Sleep Awareness Week 2012**, as part of its public education programme. The campaign is intended to be a celebration of sleep and a call to action on important issues related to sleep, including disorders, treatments, education and perception. The Singapore Sleep Awareness Week 2012 will kick off on **16 March 2012**, in celebration of **World Sleep Day.**

This year's theme, ***"Sleep for All Ages"***, will discuss how sleep deprivation affects performance for people across all age groups, from children and teenagers, to adults and the elderly. You can learn to enhance daily performance, be it in study, work or leisure.

During the campaign period, please join us for the public symposium, Open House events by hospital partners, talks by sleep experts, and make use of the resources and practical tips you can find in this guide, and our website, to make improvements to your sleep health.

We invite you to participate in the activities we have lined up, and improve your loved ones' and your own sleep health in 2012!

Dr Lim Li Ling
President
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Sleep An Hour More Movement

Open to Public | Online Activity - Facebook

Search for "Sleep An Hour More Movement" on Facebook

Voluntary Sleep Deprivation - three nasty little words. ALL of us are probably guilty of it!

The most common cause of sleepiness in the day is inadequate sleep due to voluntary sleep deprivation. Long term sleep deprivation may have harmful effects on your body and brain. Therefore in conjunction with World Sleep Day on 16 March 2012, we encourage everyone who is routinely not getting enough sleep to sleep an hour more than usual if possible.

Switch off your mobile phone, computers or TV, tuck in early, sleep in later or take a nap in the day, and remember what it was like to enjoy good sleep and wake up feeling refreshed. From 16 to 25 March during the Singapore Sleep Awareness Week 2012, try to sleep an hour more everyday and feel the physical differences in your body. Take the challenge and pledge your support for the "Sleep An Hour More Movement" on Facebook.

Visit the Facebook page to become a fan and pledge support for the **SLEEP AN HOUR MORE MOVEMENT!**

Combined Medical & Dental Sleep Medicine Seminar

For Medical Professionals Only | Registration Required

Date: 4th March 2012 (Sun) | Time: 11.00 am - 3.30 pm

Venue : Raffles Town Club (1 Plymouth Avenue Singapore 297753)

A seminar for medical professionals, the topics covered include:

- Obstructive Sleep Apnoea: Diagnosis & Management by Dr Sridhar Venkateswaran, Changi General Hospital
- Management of Paediatric Sleep Disorders by Dr Chng Seo Yi, Paediatric Respiratory Specialist
- Restless Legs Syndrome: Diagnosis & Treatment by Dr Lim Li Ling, Singapore Neurology & Sleep Centre
- Management of Obstructive Sleep Apnoea - Mandibular Advancement Splint & Surgery by Dr Poon Kee Hoon, Twin City Medical and Dental Clinic, and Dr Lye Kok Weng, National Dental Centre

Controversies In Sleep Medicine Medical Seminar

For Medical Professionals Only | Registration Required

Date: 17 March 2012 (Sat) | Time: 6.30 - 9.00 pm

Venue: Megu Event Hall @ Singapore Flyer
(30 Raffles Avenue, #02-03, Singapore Flyer, Singapore 039803)

Medical Professionals are invited to partake in this forum which will provide insights on the following topics:

- Managing Insomnia: Appropriate Use of Sleeping Aids By Dr Lim Li Ling, Neurologist, Singapore Neurology & Sleep Centre
- Cognitive Behaviour Therapy for Insomnia: An Evidence-Based Approach By Wong Mei Yin, Senior Psychologist, National Health Group Polyclinics
- Panel of Experts session "Controversies in Sleep Medicine: Prescribing Sedative Hypnotics Safely" (Panelists: Dr Lim Li Ling, Ms Wong Mei Yin and Dr Ang Yong Guan)

Sleep For Success Public Symposium

Open to Public | Registration Required

Date : 24 March 2012 (Sat)

Time : 1.30 pm - 5.00 pm

Venue : Sheraton Towers Singapore,
Ballroom 2, Level 2
(Thirty-Nine Scotts Road,
Singapore 228230)

Registration Fee: $10 nett per person
(includes light refreshments)

Do you know that the right amount of sleep or good sleeping habits can help you attain optimal performance at work and even at play? What are some of the sleep problems affecting good sleep?

Spend an afternoon with specialists in sleep from Gleneagles Hospital, to learn more about sleep deprivation and how it affects performance. Get your nagging sleep questions answered by our panel of sleep specialists.

Programme:

1.30 pm	Registration & Collection of Goodie Bag, visit of sleep fair
2.00 pm	Welcome and Introduction ***"Maggie's Law and Justice Nod"*** By Dr Yeo Poh Teck Neurologist, Nerve specialist, Yeo Neurology & Clinical Neurophysiology
2.10 pm	***How can Sleep Deprivation affect your Health and Performance?*** By Dr Lim Li Ling Neurologist, Singapore Neurology & Sleep Centre
2.40 pm	***Why are you Sleepy and Snoring? How do we fix the problem?*** By Dr Constance Lo Consultant Respiratory Physician, Respiratory Medical Associates
3.10 pm	Light Refreshments, visit of sleep fair
3.40 pm	***Sleep and School - What's Important*** By Dr Jenny Tang Medical Director, SBCC Baby and Child Clinic, Asthma Lung Sleep and Allergy Centre
4.00 pm	Q&A
4.30 pm	End

To register, please contact Parkway:

Phone : 6854 6692 (Mon - Fri : 8.30am - 6.00pm)
Fax : 6854 6667
Emai : events@parkway.sg

Terms and Conditions:

- Payment must be made in cash of the day of the event
- Reserved seats will be automatically released if registration is not made by 1.55 pm on the day of event
- Programme is subject to change without prior notice
- Strictly no admission for children under 12 years old

OPEN HOUSE by Hospital Partners

Open to Public | Registration Required

A series of talks, workshops, guided tours to Sleep Clinics – informative activities to enrich your knowledge about sleep.

OPEN HOUSE @ KK Women's and Children's Hospital (KKH)

Date	: 17 March 2012 (Sat)
Time	: 10.00 am - 11.30 am
Venue	: KK Women's and Children's Hospital, Women's Tower Lecture Theatre
Registration	: Please contact Miss Grace Teo Tel: 6394 8811 or email Grace.Teo.SY@kkh.com.sg with your name(s), contact number. Admission is free.
Registration Deadline	: 12 Mar 2012 or until (40) seats are filled.

Programme:

10.00 am	Welcome and Introduction.
10.05 am	Open Discussion with Participants on the following topics, facilitated by Dr Biju Thomas (Consultant in Paediatric Respiratory Medicine) and Ms Adeline Tan (Respiratory Technologist) - Sleep hygiene in children - Behavioural sleep problems in children - Parasomnias - Obstructive sleep apnoea - Excessive daytime sleepiness - Morbidity related to sleep problems in children and their long term implications (For each topic, an introduction and overview will be provided, followed by flexible discussions based on participants' interests.)
10.45 am	Demonstration of the facilities for investigation of sleep orders in children.
11.30 am	End of programme.

OPEN HOUSE @ National University Hospital (NUH)

Date	: 23 March 2012 (Fri)
Time	: 11.00 am - 2.00 pm
Venue	: NUH Main Building Level 3, DLM (Department of Lab Medicine) Lecture Theatre. Please use Lift Lobby 1.
Registration	: Please call Miss Faezah at 6772 2244. Admission is free.
Registration Deadline	: 16 March (Fri)

Programme:

10.30 am	Registration
10.45 am	Guests to be seated.
11.00 am	Talk on "Snoring And Obstructive Sleep Apnoea - What Do We Need To Know" by Dr Chua Ai Ping, Consultant, Division of Respiratory & Critical Care Medicine, University Medicine Cluster
12.00 pm	Lunch Break (Lunch will be provided)
1.00 pm	NUH Sleep Lab tour and "live" demostration of the Sleep Study
2.00 pm	End of Programme

OPEN HOUSE @ Singapore General Hospital (SGH)

Date	: 24 March 2012 (Saturday)
Time	: 10.00 am - 12.00 pm
Venue	: Singapore General Hospital Deck on 9, Block 6, Level 9 (Visitor registration is required at the Blk 7 Visitor Registration Services on the actual day)
Registration	: Please call Sleep Disorders Unit at 6326 6621 or email: gnrsdu@sgh.com.sg
Registration Fee	: $5 nett per participant (Refreshments will be provided, cash payment on the actual day)
Registration Deadline	: 21 March (Wed)

Programme:

10.00 am	Registration
10.30 am	Obstructive Sleep Apnoea: Not Just Snoring in Your Sleep by Dr Sewa Duu Wen, Department of Respiratory and Critical Care Medicine
10.50 am	When Sleep Just Won't Come by Dr Wong Sheau Hwa, Department of Psychiatry
11.10 am	Open House Activities: Have a feel of Continuous Positive Airway Pressure therapy, learn how to relax mind for better sleep and find out what a sleep study is about!

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WHAT IS GOOD SLEEP?

What is sleep? Why do we need it?
When we are asleep, muscle tone is reduced, we are less responsive to the external environment and changes in brain electrical activity occur.

How do brain and behaviour benefit from sleep?
Sleep is important for the consolidation of memories and benefits the learning of skills or procedures as well as factual information. When deprived of sleep, performance in tasks requiring a person to monitor for infrequent, unpredictable targets and to respond quickly show consistent decline. Under some conditions, persons making risky decisions tend to chase gains while becoming indifferent to losses. Sleep deprivation alters emotional wellbeing and modifies our perception of whether effort put into work is worthwhile.

What constitutes good sleep or sleeping well?
Good sleep is sleep which is refreshing. A reliable indicator of adequate good quality sleep is waking up naturally feeling refreshed, and no excessive daytime sleepiness in the mid-afternoon.

You're not healthy, unless your sleep is healthy.
- Dr. William Dement, ***father of sleep medicine***

Sleep Tips for Children

1. **Consistent sleep schedule**
   Regular nap times, bedtime and wake times to accommodate children's natural preferences, activity and family lifestyle. Avoid discrepant weekday and weekend schedules.
2. **Consistent bedtime routine**
   A consistent but enjoyable bedtime routine is important to help transit children from a high level of daytime activity to bedtime. It should be pleasant, so that the child looks forward to bedtime. The routine can include changing into pyjamas, brushing of teeth, bedtime stories etc. A regular daytime schedule (e.g. mealtimes and playtimes) also helps to stabilize the sleep wake schedule.
3. **Avoid sleep onset associations**
   Always put the child to bed awake but drowsy, so that they can learn to settle themselves and fall asleep both at bedtime and at night waking. Avoid sleep associations e.g. breast-feeding, bottle-feeding. Transitional objects e.g. a blanket, stuffed animals, dolls, may assist independent settling and self-soothing.
4. **Avoid night feedings after age 6 months**
   Night feedings are not physiologically necessary in most cases after the age of 6 months and do not improve the quality or quantity of sleep. A persistent requirement for night feedings may be related to sleep onset associations or conditioned hunger. Unnecessary night feeds also increase wetting and more disturbed sleep.
5. **Avoid co-sleeping**
   Co-sleeping increases the risk of Sudden Infant Death Syndrome under certain conditions, such as parental smoking, drug or alcohol use. The practice has also been implicated in suffocation deaths, but is controversial in its impact on psychological and developmental effects. Co-sleeping infants have less slow wave sleep and more frequent night-time arousals and may result in difficulty in transiting the child to their own bed or room when appropriate and necessary.
6. **Ideal bedroom**
   The bedroom should be at a comfortable temperature, quiet, and dark. A night-light is acceptable if preferred by the child. Avoid using the bedroom for time-out or punishment, and the bed for activities other than sleeping i.e. do not play, study, read or listen to music on the bed. Keep the television set out of the bedroom.
7. **Appropriate naps**
   Naps should be geared towards child's age and developmental need. Avoid long naps or naps too close to bedtime.
8. **Regular Exercise**
   Daily exercise not too close to bedtime reduces sleep latency and enhances sleep.
9. **Encourage adequate Sleep**

HOW MUCH SLEEP DO I NEED?

CHILDREN & ADOLESCENTS

How much sleep do children need?
Typical sleep requirements vary with age. (Please refer to the table on the facing page for details.)

In a newborn, sleep periods of 3 to 5 hours in bottle fed babies and 2 to 3 hours in breast fed babies are separated by 1 to 3 hours awake. An infant typically takes a mid morning and early afternoon nap and the former drops out by 18 to 24 months. Most children do not need naps by 3 to 5 years old.

What is considered enough sleep?
Enough sleep is the amount of sleep required for the child to feel well rested and function normally. Insufficient sleep is inadequate sleep relative to sleep need. Some signs of insufficient sleep in children include excessive daytime sleepiness, mood disturbances, behavioural problems, poor concentration and learning problems.

ADULTS

How much sleep do adults need?
Some persons need more while others need less sleep. Excessive daytime sleepiness (falling asleep in class or at work) is a clear feature of inadequate sleep. Sleeping in on weekends is another indicator.

For adults, it is unusual to be needing more than 10 hours of sleep a day.

How much sleep is too much? Is too much sleep bad for me?
It is unusual to be needing more than 10 hours of sleep a day.Too much sleep, like too little, is also associated with increased mortality. Some people who seem to need a lot of sleep may have an underlying primary sleep disorder such as obstructive sleep apnoea (OSA) or a much less common primary sleep disorder called "narcolepsy" characterized by excessive daytime sleepiness and sleep attacks.

There is a small percentage of people who routinely sleep for longer than the usual 6 to 8 hours a night, called "long sleepers", who regularly need more than 10 to 12 hours of sleep a day to feel refreshed. Notwithstanding, we do recommend that adults who have unusually prolonged sleep duration (needing more than 10 hours or sleep a day and still feeling tired) seek medical attention, as this may be an indicator of underlying disease such as OSA.

I sleep 8 hours every night, but still wake up feeling tired and unrested. What could be the cause of this?
Unrefreshing sleep in spite of an adequate duration is usually suggestive of an underlying sleep disorder or mood disturbance, such as OSA or depression/ anxiety. These are the most common disorders causing unrefreshing sleep. If one feels tired and unrested in spite of sleeping 8 hours every night, they are encouraged to consult a doctor for a medical evaluation.

Some cultures advocate taking a short afternoon nap ("siesta") – is this urge to take a nap normal, and should we give in to it when we can?

Feeling sleepy in the mid-afternoon is "physiological", i.e. it is part of the normal body clock function - we tend to feel sleepy at two times in a 24 hour day, mid-afternoon and at bedtime. In sleep deprived individuals who have not got enough sleep the night before (which happens quite often in modern fast-paced societies), taking an afternoon nap at the time to coincide with this physiological mid-afternoon dip in alertness can be very refreshing. A short nap at that time helps us catch up on lost sleep, and leaves us feeling more alert and "recharged" for the rest of the day. Therefore a short afternoon nap is a good thing for people who generally tend not to get enough sleep at night because of their busy schedules.

Feeling sleepy in the mid-afternoon is "physiological", i.e. it is a part of the normal body clock function – we tend to feel sleepy at two times in a 24 hour day, mid-afternoon and at bedtime.

Sleep needs vary with age, have a look at this simple table. Are you sleeping enough?

Newborns	16 to 17 hrs
Toddlers	12 to 13 hrs
Pre-Schoolers Children	11 to 12 hrs
School-going	10 to 11 hrs
Adolescents	8 to 9.5 hrs
Adults & Seniors	6 to 10 hrs

** This table serves as a general guideline to the average recommended sleep hours for each age group. Sleep needs also vary with individuals.*

COMMON SLEEP PROBLEMS

Children & Adolescents

What are common sleep problems in children?

Approximately 25% of all children experience some type of sleep problems at some point in childhood, ranging from transient sleep disturbances to more serious primary sleep disorders. Many of these disorders are preventable with education and anticipatory guidance of parents or are treatable.

- Sleep-Onset Association Disorder (SOAD) is a condition characterized by reliance on specific stimulation or objects for initiating sleep or returning to sleep following an awakening e.g. rocking, breast feeding or bottle feeding.
- Limit-Setting Sleep Disorder is a condition whereby there is inadequate enforcement of bedtime limits by the caregiver resulting in the child stalling his bedtime or refusing to go to bed.
- Parasomnias e.g. Confusional Arousals, Sleep Walking, Night Terrors are part of a spectrum of disorders resulting from arousal from deep sleep. Most children outgrow these problems.
- Obstructive Sleep Apnoea (OSA) is a condition whereby there is intermittent obstruction or prolonged partial obstruction of the airway resulting in disruption of gas exchange and thus reduced oxygen or raised carbon dioxide in the blood. Early diagnosis and appropriate treatment is necessary to prevent complications of disease.

Adults

What are common sleep problems in adults?

The most common problems seen in specialist Sleep Disorders clinics in Singapore are insomnia and OSA.

Common sleep problems in adults insomnia and obstructive sleep apnoea (OSA)

Local patients with insomnia most commonly are unable to sleep well because of severe stress or emotional distress, many have clinical depression and anxiety, and may require antidepressant therapy. The other big group of patients with difficulty sleeping well have OSA.

Other frequently encountered sleep related issues are chronic sleep deprivation, jet lag, shift work related sleep problems and dependence on sleeping pills. All of these conditions are treatable, but unfortunately are often overlooked because many people may not be aware of the significant impact of sleep disturbance on health, or accept the typical symptoms of sleep disorders such as daytime tiredness, unrefreshing sleep and snoring as normal or part of "stress".

Seniors

What are common sleep problems in seniors?

The elderly are more prone to sleep disturbances because there is a natural decline in sleep quality with age. Older people also tend to be on more medications which can affect normal sleep. With age, there is also an increasing prevalence of primary sleep disorders like OSA and Restless Legs Syndrome; as well as other conditions which can disturb sleep, like Parkinson's disease, stroke and dementia. Certain other conditions like depression and anxiety also may occur more frequently with increasing age, associated with changes such as menopause, retirement, bereavement and other losses.

Are sleep problems part of the ageing process?

Sleep quality declines with age, so that a person may appear to sleep less, often going to bed and waking up earlier. The body's natural "sleep hormone", melatonin, also declines with age. A person who has worked in the same shift work job for decades since young may develop insomnia as they grow older in the same job, because they become less able to tolerate changing shifts than in the past. Menopause in women is associated with insomnia, related to declining hormone levels, mood changes and physical symptoms like hot flashes. Overall elderly people have more propensity to develop sleep disturbances because they have more medical problems which also affect sleep, as well as take more medications which affect sleep.

Top factors that cause sleeping problems

- **Lifestyle choices:** Drinking too much coffee during the day (or other caffeinated beverages), poorly managed stress, exercising, eating or working late in the night close to bedtime (any stimulating activity), lack of exercise, irregular sleep-wake times
- **Psychological factors:** Chronic stress, depression, anxiety. All of these affect our ability to fall asleep and get good quality sleep.
- **Unrecognized sleep disorders** e.g. Insomnia, OSA. Many people do not seek medical attention early, and some people do not get the correct diagnosis or treatment. Greater awareness is required for sleep disorders in general.
- **Medication factors:** Many older people are on many medications, some of which can affect sleep e.g. steroid therapy, asthma medication. Drug effects should always be considered in patients who have sleeping problems.
- **Sleeping pill overuse:** This is a significant problem which has been highlighted frequently in the media. It is unhealthy to be dependent on sleeping pills to sleep.

When you wake up to the side effects of snoring you'll quickly realise it's far more than just annoying.

If you snore, wake up tired or find yourself falling asleep during the day, you may have Obstructive Sleep Apnea (OSA).

What is OSA?

If you have OSA, your airway becomes completely blocked and you stop breathing while you're asleep.

When your brain senses there is a lack of oxygen, it shocks your body into waking up. This severely disrupts sleep and puts excessive strain on all your major organs and functions.

This can happen several hundred times a night—no wonder you wake up feeling unrefreshed!

1 Mooncup et al. J Royal Crit Care Med 1998
2 Bassetti et al. Sleep 1997
3 Young T, Blustein J et al. Sleep 1997

Serious associated risks

Over **35%** of those with sleep apnea also suffer from **high blood pressure**, which is associated with an increased risk of heart and **cardiovascular disease**.[1]

Almost **70%** of those that have had a **stroke** also have sleep apnea.[2]

A person with sleep apnea is **seven times more likely to have a car accident**.[3]

Other serious risks to your health include **hypertension, diabetes and obesity**.

In short, it can be a real nightmare.

What should I do?

The good news is, OSA can be treated non-surgically and effectively with positive airway pressure therapy.

If you think you or your partner may have OSA, see your doctor for more information or contact your nearest ResMed office or distributor.

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Email : cpap@sgmedical.org

SLEEP DISORDERS

Snoring & Obstructive Sleep Apnoea (OSA)

What is snoring?

Snoring is the sound caused by the vibration of the walls of the air passages and throat when it partially collapses during sleep. In people who snore, the upper airway is narrow. When awake, the airway muscles keep the air passages open but during sleep, the muscles surrounding the air passages relax causing collapse. Intermittent collapse while breathing produces vibration and this is snoring. The prevalence is common and has been reported to range from 5% to more than 80% in various population studies. Snoring can be disturbing and cause sleep disturbance to sleeping partners.

What is obstructive sleep apnoea?

Snoring if associated with choking, unrefreshing sleep, daytime sleepiness or fatigue may suggest the presence of a medical condition called Obstructive Sleep Apnoea (OSA). OSA is a condition where there is repeated upper airway choking during sleep which causes oxygen levels in the body to drop. This is sensed by the brain which needs to wake itself up temporarily to open the airway to breathe before falling back to sleep again. On returning to sleep the obstruction occurs again and this cycle repeats. This causes poor sleep quality and unrefreshing sleep. The person with OSA is usually unaware of how many times choking and awakenings occur during sleep. In severe cases this can occur more than 30 times an hour.

What are the causes of snoring and OSA?

There are many causes of a narrow airway and OSA, most patients have multiple causes. Some factors such as abnormal shape of the facial bones may be inherited but others may develop over time and this may include nasal problems that narrow the nose passages, tonsils and adenoid enlargement or obesity. Increasing age also predisposes to snoring due to laxity of the tissues in the air passages causing increased collapsibility.

Children & Adolescents

Is snoring normal in children?

About one in five of habitual snorers may have undiagnosed OSA. OSA occurs in about 3% of normal children and up to 80% of at risk children e.g. children with obesity, allergies, nerve and muscle problems.

How common is snoring in children?

Approximately 30% of children snore, 10% have habitual snoring and 1 to 3% have OSA.

What causes snoring in children?

Children with a family history of snoring, narrow airway structure, male gender, obesity, asthma, pharyngeal problems e.g. tonsillar hypertrophy, recurrent upper respiratory tract infections, nasal obstruction and allergies are at risk of snoring. Muscle relaxants, and smoking (active or passive) increase the incidence of snoring. Snoring is also a cardinal symptom of OSA.

Why do we need to worry about snoring children?
About one in five of habitual snorers may have undiagnosed OSA. This prevalence increases in high risk patients e.g. obese patients. Untreated OSA may result in developmental delay, impaired learning and memory, cognitive dysfunction, persistent bedwetting, behavioural and mood problems, impairment of growth, metabolic disease, hypertension and heart failure. Some of these consequences may not be completely reversible.

How do we know if a snoring child has OSA?
Night time symptoms suggestive of OSA include habitual snoring often associated with snorting, gasping or choking in sleep, witnessed apnoeas, mouth breathing and restless sleep. Excessive daytime sleepiness, morning headaches, behaviour or mood disturbances may also be present. Children with habitual snoring and symptoms or consequences suggestive of OSA should be evaluated by a paediatrician with experience in treatment of sleep disorders. An overnight sleep study is usually required to confirm the diagnosis of OSA.

Is there any treatment for snoring or OSA in children?
Adequate total sleep time appropriate for age, avoidance of active and passive smoking, optimal treatment of asthma, allergic rhinitis and nasal obstruction if present, and reduction in obesity helps to reduce snoring. Tonsillectomy +/- adenoidectomy and or nasal CPAP is the mainstay of therapy for OSA in children. Alternative surgical treatments, dental medical treatment may be indicated in selected cases.

Adults

What are the Symptoms of OSA?
There are many symptoms associated with OSA and not all patients have all the symptoms. In fact some patients with severe OSA may even have very few symptoms. Most of these symptoms are also not exclusive to OSA, there can be overlap of these symptoms with other conditions.

Daytime symptoms include:
- Unrefreshing sleep
- Daytime sleepiness
- Waking up with a dry mouth or throat
- Headaches on waking
- Mood problems like Depression
- Poor memory and concentration

Night time symptoms include:
- Loud snoring which may disturb sleeping partners
- Frequent awakenings from sleep
- Frequent trips to the toilet to pass urine
- Poor ability to stay asleep through the night (Sleep maintenance insomnia)

Using symptoms alone to diagnose OSA is inaccurate but it does raise the suspicion of the condition. It is therefore important to do an overnight sleep study to confirm OSA.

How do I know if I have OSA?

A diagnosis of OSA is made by doing an overnight sleep study. There are several different types of sleep studies available and the most accurate types will include placing wires on the head to monitor the brain waves, eye movements and muscle activity during sleep. During this study, other wires on the body record the breathing pattern, heart rhythm, oxygen level, snoring and body movement. If the sleep study is negative for OSA in a snorer, the diagnosis is Primary Snoring i.e. snoring in the absence of airway obstruction.

What are the problems associated with untreated OSA?

- Increased risk of developing other serious medical conditions.
  Untreated OSA increases the risk of developing high blood pressure, heart disease, stroke and diabetes. These medical problems have serious medical consequences that will decrease the quality of life and one's lifespan.
- Effects of poor sleep quality.
  Poor sleep quality causes excessive sleepiness which may predispose to accidents in the workplace if one is operating heavy machinery or on the road if one is driving. Mood disturbances and poor memory may affect a person's quality of life.
- Social problems due to snoring
  Snoring by itself is not dangerous, however it may create social problems and cause sleep disturbance to the sleeping partner. This can strain relationships and increase risk of divorce. Some female snorers are also embarrassed by their snoring.

What treatment is available for snoring and OSA?

There are multiple treatment options for OSA and snoring and the treatment approach is similar. Unfortunately there is no medication to cure this problem and no ideal treatment for all patients as all options have varying success rates and different potential side effects. In other words, there is no one size fits all solution. The most suitable treatment method (or methods, as some may need to be combined) has to be decided with your doctor taking into account your preferences, severity of your symptoms or sleep apnoea and effectiveness/ side effects of the treatment method. It is important to understand all treatment options available before an informed decision can be made.

Non-invasive treatments :

- Behavioural and lifestyle measures like losing weight if one is obese
- Stop smoking
- Avoidance of alcohol as this depresses the airway muscle function
- Regular sleeping schedules and avoiding sleep deprivation
- Change sleeping positions - sleeping on the back may make snoring and OSA worse, therefore sleeping while lying on the side may improve this. However this may not true for everyone. A sleep study should be able to tell if a change in sleeping position will make any difference to the snoring and OSA
- The use of Continuous Positive Airway Pressure therapy (CPAP)
- The use of dental splints

Many types of surgery are also available for the treatment of snoring and OSA. What is important to understand when and why someone should consider surgery as surgery may not be suitable for everyone and may involve risks and result in potential side effects.

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INSOMNIA

What is insomnia? What are the common causes of insomnia?
Insomnia refers to a difficulty falling or staying asleep (recurrent awakenings) or a perception of unrefreshing sleep.

Man should forget his anger before he lies down to sleep.
– *Mahatma Gandhi*

There are several types of insomnia:

Adjustment or acute insomnia is associated with an identifiable stressor, such as relationship problems, work stress, bereavement or moving to a new location. It usually lasts a few days to a few weeks, and typically resolves when the underlying stress is resolved.

Psychophysiological insomnia is also known as "conditioned insomnia" or "learned insomnia". People who have this are inclined to developing insomnia (e.g. habitual light sleepers, those with an anxious over concern for health), having a physiologically heightened arousal state. Usually there is a precipitating event, typically a stressor of some kind. What follows is the development of learned behaviours not conducive to sleep, such as tossing and turning in bed for hours, watching the clock, excessive consumption of caffeine to stay alert in the daytime, and over concern about the inability to sleep. Such patients have a state of "hyper-vigilance" at bedtime, and often describe themselves as having a "racing mind", or an "active mind which cannot be switched off", typically describing being filled with trivial thoughts.

Insomnia can also be a presenting symptom of depression or anxiety. Anxious patients may describe being unable to fall asleep at night, and feeling tense and worried in the daytime about many things. Depressed patients report early morning awakenings or difficulty staying asleep, with recurrent awakenings. Depressed patients may report a range of symptoms such as low energy, lethargy, poor appetite, lack of interest in activities of daily living, social withdrawal, excessive rumination and in severe cases, suicidal thoughts.

Are men or women more vulnerable to insomnia?
Insomnia affects women more, for several reasons. Women are more affected by anxiety and depression than men. Women also go through changes at different times of their reproductive cycle such as pregnancy and menopause which affect sleep. In pregnancy, insomnia can occur because of back pain, frequent urination and marked hormonal changes which can affect mood. In menopause, hormonal fluctuations, accompanying symptoms (e.g. hot flashes) and mood disturbances can disturb sleep.

What are the treatments available for insomnia?
Insomnia is managed with a combination of sleep education, behavioural modification techniques, psychological support and medication. Sleeping pills which are addictive and associated with a long list of problematic side effects are seldom required in the long term. Sleep education is an important part of insomnia management, during which patients are taught basics of good sleep health, and how to manage lifestyle factors for ideal sleep. Sleep hygiene instruction and a range of "Cognitive Behaviour Therapy (CBT)" techniques refer to specific methods of managing sleep habits to achieve good sleep in the

long term without drugs. CBT encompasses a range of skills taught to patients to achieve a relaxed state and peace of mind conducive to sleep. It been shown to provide the best long-term benefits in chronic insomnia patients.

A variety of non-addictive medications can be helpful to enhance sleep, and are tailored to the individual patient. All medications should be supervised by a doctor, and long term use of addictive sleeping pills can usually be avoided except in carefully selected patients who are closely monitored for problems.

Circadian Rhythm Sleep Disorders

What is a circadian rhythm?

The word 'circadian' literally means 'about a day'. The daily pattern of sleep and wakefulness is a circadian rhythm. The timing of your sleep is determined by a body clock located deep in your brain. The body clock normally ensures that you can fall asleep during the night and remain alert during the daytime.

Some people's sleep phase is quite early or advanced ("sleep early, get up early", usually older people); while some have delayed sleep phases ("sleep late, get up late", usually teenagers). As long as whatever sleep phase one has can fit in with their daytime social/occupational requirements, from a medical health perspective, it does not matter really what time we go to bed as long as we get the total amount of sleep we need.

What is a circadian rhythm sleep disorder?

A circadian rhythm sleep disorder occurs when the body clock becomes misaligned or disrupted. This can cause a person to feel sleepy earlier or later than desired, or to feel awake when he or she wants to sleep.

What is delayed sleep phase disorder? How can I achieve earlier sleep?

Individuals with delayed sleep phase disorder (DSPD) go to bed much later than desired (e.g. 4:00 a.m in the morning), and find it very difficult to wake up in the morning. DSPD is most common in adolescents. Exposure to light late at night contributes to DSPD by setting the sleep rhythm to a later hour. To reset the sleep rhythm earlier, it is important to get morning sunlight and to avoid exposure to bright light late at night.

I work the night shift. Why is it so difficult for me to stay awake near the end of my shift?

At night, the body clock sends out a strong sleep signal that can impair your ability to perform at your best. Shift workers may also find it difficult to sleep during the daytime because the body clock sends out a wake signal after sunrise. Taking a nap before you report for shift work can help to reduce sleepiness later in the shift. Individuals who are unable to adjust their body clock may have Shift Work Sleep Disorder.

What is jetlag? How can I beat jetlag?
Jetlag occurs when your body clock becomes temporarily misaligned with the day-night cycle in the new time zone. Over the course of days, your body clock adjusts until your circadian rhythm of sleep eventually becomes aligned. Exposure to sunlight can help the body clock adjust to the new time zone more rapidly. Exposure to light in the late evening helps to shift the body clock in the westward direction, whereas exposure to bright light in the early morning helps to shift the body clock in the eastward direction.

Bruxism - Clenching and grinding of teeth during sleep

What is Bruxism?
Bruxism is when you clench (grip your top and bottom teeth together) or grind (slide your teeth back and forth over each other) your teeth. People can clench and grind without being aware of it during the day and when asleep. This can happen in both children and adults. The cause of bruxism is not completely agreed upon. Daily stress may be the trigger in some people.

What are the signs and symptoms of bruxism?
Clenching or grinding the teeth puts pressure on the muscles, tissues, and other structures around your jaw. The grinding forces can be quite strong and occur over a long period of time, especially bruxism during sleep. This can cause the outer layers of enamel to wear away gradually, exposing the dentin and dental nerves. This can result in tooth sensitivity.

What are the symptoms of bruxism?
You may be a bruxer if you experience any of the following:
- Tightness/ pain of the jaw muscles
- Painful/ sore jaw joint (temporomandibular joint dysfunction / TMD)
- A grinding sound at night (the person grinding is asleep and unaware. This is usually heard by someone else)
- A dull headache
- Worn down/ cracked teeth,
- Broken dental fillings/ restorations and injured gums
- Sensitive teeth

Are there any side effects if left untreated?
Bruxism can cause permanent damage to the dental structures, uncomfortable jaw pain, and headaches. Severe grinding can damage teeth and result in cracked teeth, dead teeth requiring root canal treatment or even tooth loss.

What is the treatment available?
If you suspect that your child or yourself may have bruxism, consult a dentist for a full evaluation. He or she can determine if you are a bruxer and how best to treat it. If the condition is severe, your dentist may refer you to dental professionals with special training in TMD.

The goals of treatment are to reduce pain, prevent permanent damage to the teeth, and reduce bruxism as much as possible. If stress is suspected to be the cause, stress management may also be recommended. To prevent damage to the teeth, mouth guards or dental splints have been used to treat bruxism.

A splint may help protect the teeth from the pressure of clenching. There are many different types of dental splints and your dentist will recommend a suitable type for your condition.

To relieve pain at the joints, the dentist may also advise some cold or hot compress, jaw exercises and also to avoid eating hard foods like nuts, steak, ice etc. Orthodontic adjustment of the bite pattern may help some people. Surgery is usually considered as a last resort.

Normal & Abnormal Movements in Sleep

What are some normal and abnormal movements or behaviours in sleep?

Hypnic Jerks

A person falling asleep (wake-sleep transition) may suddenly jerk in his body or limbs. This may be accompanied by a feeling of falling into deep space or of losing balance. Termed hypnic jerks, these are very common and generally harmless and do not warrant treatment unless they occur repetitively in a single night, delaying the onset of sleep (usually disappear once sleep is established).

Why do these behaviours occur?

During dream sleep (Rapid Eye Movement Sleep or REM Sleep), our muscles lose tone which renders us "paralyzed" – this is a protective mechanism that prevents us from acting out our dreams. People who lose this "paralysis" during dream sleep are able to act out their dreams, these usually being negative ones, involving fight or flight. Their behaviours and actions during this are usually consistent with dream content. People who experience this REM Behaviour Disorder are usually adults. This may indicate an underlying sleep-related breathing disorder or neurological condition (or may occasionally herald one). Socially, this usually results in marital discord as physical injuries may be inflicted on self or bed-partners during the sufferer's dream re-enactments. Management includes safety measures for the bedroom, medications to reduce the occurrence of this behaviour and treatment of associated or underlying conditions.

Restless Legs Syndrome

Experiencing an abnormal sensation in the legs (less commonly involving the hands) in the night before bedtime may indicate a condition known as Restless Legs Syndrome. The sensations experienced may range from numbness, pins-and-needles, water running through the legs, crawling ants, etc…They uniformly make it difficult for the sufferer to fall asleep. Getting out of bed and walking/pacing may bring some measure of temporary relief for the sufferer. Even upon sleeping, periodic jerks in the legs (Periodic Leg/Limb Movements in Sleep) may disrupt the sufferer's sleep through the night, compounding already insufficient sleep with poor quality sleep. This condition is known to be related to low iron levels in the blood and this should be screened for besides excluding an underlying nerve/spinal cord disorder. Effective medications are available to treat this condition.

Seizures (Fits)

Seizures (Fits) often occur in sleep and may present with generalized stiffening sometimes with concomitant jerking of the limbs/body or with bizarre thrashing about. Movements or behaviours during nocturnal seizures are usually stereotypical for the person (i.e. each episode looks almost identical). These may cause considerable damage to brain cells as well as physical injuries (rarely even death) to the sufferer and should be recognized and treated.

Sleep & Insomnia

How much do you know?

A community project supported by:

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For more information,please visit: **www.singaporesleepsociety.com**

WHAT IS SLEEP HYGIENE?

Simple changes in your daily routine can help to improve sleep:

- Get up about the same time everyday, regardless of when you fall asleep.
- If you can't sleep, don't stay in bed fretting. After 15 or 20 minutes, go to another room and read or watch television until you feel sleepy.
- Go to bed only when you are sleepy and use your bed for sleeping (and sexual activity) only, not as an office, a place to watch television or (rather than nor) any other stimulating activity.
- Do not watch the clock when unable to sleep, keep the clock face turned away from you.
- Exercise regularly. However, strenuous exercises just before sleep may be stimulating and actually impair your ability to sleep. Try to finish exercise at least 6 hours before bedtime.
- Avoid taking regular naps in the day (except for shift-workers and patients with certain sleep disorders like narcolepsy). A short (15-30 minute) nap in the mid-afternoon may be refreshing in some cases, especially if you are sleep deprived. Check with your physician first.
- Keep your bedroom environment dark, quiet, well-ventilated and at a comfortable temperature. Use comfortable bedding and pillows which suit you. If you get up at night, do not expose yourself to bright light.
- Limit caffeine to no more than 3 cups no later than 12 noon. Avoid the use of alcohol as a sleep aid. Do not smoke after 7pm, or stop smoking entirely if you can.
- Establish a winding down routine toward bedtime, such as relaxing pre-sleep rituals like a warm bath, listening to music or a few minutes of reading.
- Eat a light snack before bedtime if you are hungry. Avoid any food or beverage with caffeine in it (including tea, cola, cocoa, chocolate). Do not eat or drink heavily for 3 hours before bedtime.
- If you are a bedtime "worrier", dedicate another time – perhaps 30 minutes after dinner – to write down the problems affecting you and some possible solutions.
- If you are suffering from insomnia, it may be useful to keep a sleep diary for several weeks before you see your doctor. This can help your doctor to establish the type, severity and pattern of the insomnia.

SLEEP AN HOUR MORE MOVEMENT

Voluntary Sleep Deprivation - three nasty little words. ALL of us are probably guilty of it!

Switch off your mobile phone, computers or TV, tuck in early, sleep in later or take a nap in the day, and remember what it was like to enjoy good sleep and wake up feeling refreshed.

From 16 to 25 March during the Singapore Sleep Awareness Week 2012, try to sleep an hour more everyday and feel the physical differences in your body.

LIKE us on Facebook, for regular sleep tips.
Search for **"Sleep An Hour More Movement"** on Facebook
or visit **www.singaporesleepsociety.org/ssaw2012**