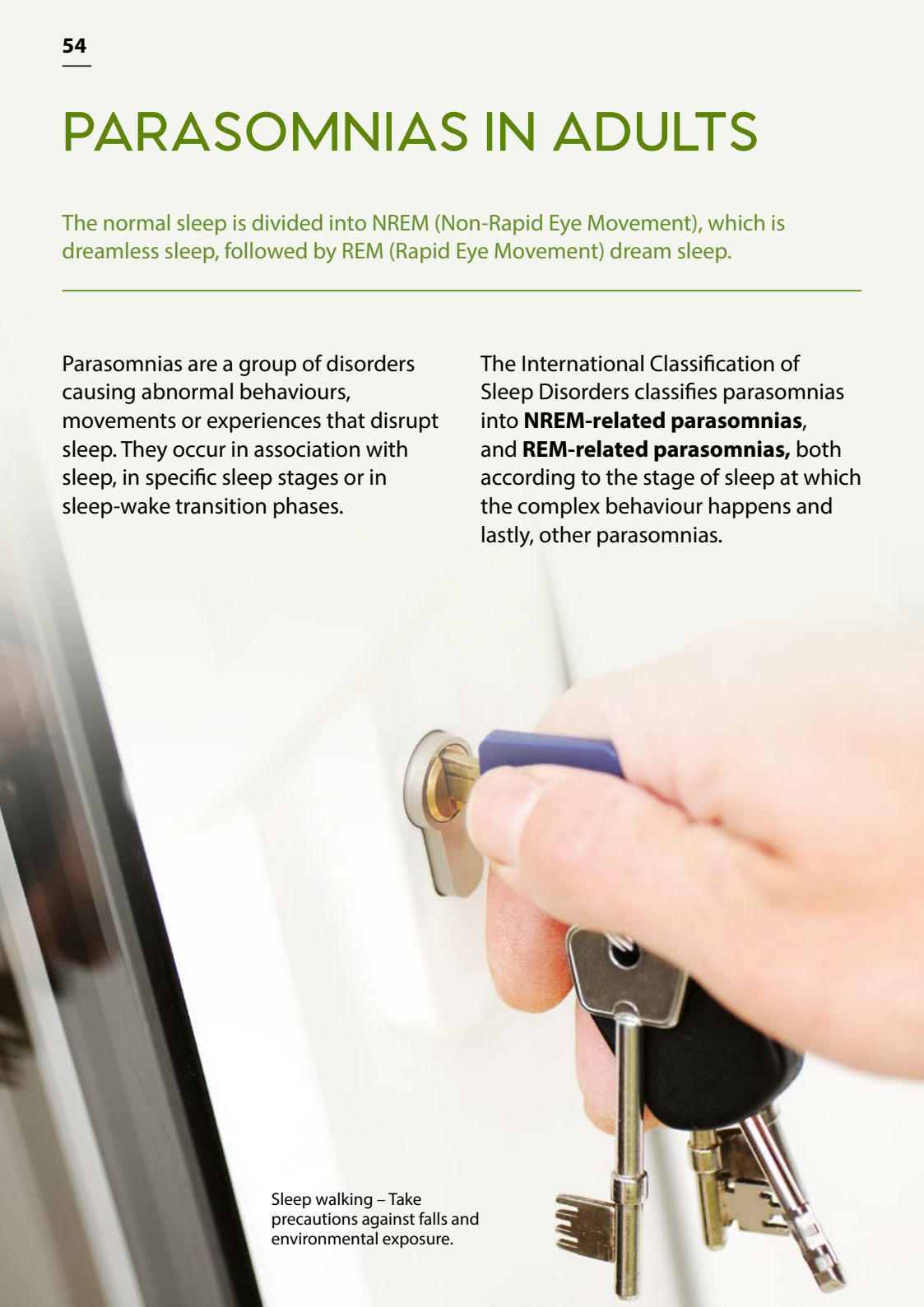


PARASOMNIAS IN ADULTS

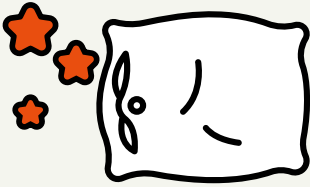
The normal sleep is divided into NREM (Non-Rapid Eye Movement), which is dreamless sleep, followed by REM (Rapid Eye Movement) dream sleep.

Parasomnias are a group of disorders causing abnormal behaviours, movements or experiences that disrupt sleep. They occur in association with sleep, in specific sleep stages or in sleep-wake transition phases.

The International Classification of Sleep Disorders classifies parasomnias into **NREM-related parasomnias**, and **REM-related parasomnias**, both according to the stage of sleep at which the complex behaviour happens and lastly, other parasomnias.



Sleep walking – Take precautions against falls and environmental exposure.



NREM-RELATED PARASOMNIAS

NREM parasomnias are disorders of arousal that usually happens during deep sleep Stage 3 NREM but can also occur in light sleep Stage 2 NREM.

NREM parasomnias are disorders of arousal from sleep and consists of the following types:

- Confusional arousals
- Sleepwalking
- Sleep terrors
- Sleep-related eating disorders

NREM parasomnias are more common in children than adults, and the estimated prevalence in the adult population is around four percent.

Confusional arousals, otherwise called 'sleep drunkenness', are a type of parasomnia where the person suddenly wakes up from sleep, and is associated with a confused state of mind and appears bewildered. It mostly lasts for a few minutes to 15 minutes.

Sleepwalking, or Somnambulism, usually starts abruptly within the first one-third of sleep and generally lasts for less than 10 minutes.

Sleepwalking is characterised by complex behaviours in sleep, mostly walking. The sleepwalking is usually slow and quiet with the eyes open. Occasionally, the sleepwalkers can do goal-directed tasks, such as cleaning, rearranging furniture, driving, and sometimes life-threatening actions, like jumping out of windows.

The episodes of sleepwalking terminate spontaneously, with the person waking up in a different location or returning to bed without incident. Sometimes, the person may become confused and agitated when others try to fully wake them up from the sleepwalking episodes.

Safety is the main concern during sleepwalking, as injury may occur during walking, from falls and environmental exposure.

Sleep-related eating disorders is a condition similar to sleepwalking, where the person wakes up from sleep with a partial arousal and does involuntary eating of both edible and inedible things, such as pet food etc.

Sleep terror or night terror manifests as a sudden arousal from sleep, with intense fear and screaming associated with a flushed face, sweating of the whole body and palpitations.

The person suffering from NREM parasomnias has no recollection of those events when asked about them.

Management

If you suspect that you are suffering from NREM parasomnias, seek appropriate medical attention to rule out other medical conditions or medications which can cause parasomnias.



The person suffering from NREM parasomnias will not remember the event.

You may need further investigations, such as a polysomnogram, to confirm the diagnosis by ruling out other sleep disorders. NREM parasomnias in adults are often treated with good sleep hygiene, avoidance of precipitating drugs, avoidance of sleep deprivation and discontinuation of stimulants, such as caffeine.

General safety measures should be put in place when a person has been diagnosed with parasomnias. The environment has to be made safe, i.e. to lock doors and windows, remove dangerous items and other hazards.

Family members should be aware of this condition, and educated on how to tackle gently when the person is having an episode of parasomnia without confronting the person.

Treatment with medicines, particularly a low dose of clonazepam, is useful in selected cases where the parasomnias are not responding to non-pharmacological treatment and the episodes are frequent and injurious to the person.



REM-RELATED PARASOMNIAS

REM sleep is the stage of sleep where we dream but are prevented from acting out our dreams by the accompanying relaxation of the whole body muscles (atonia).

There are three types of REM-related parasomnias - REM Sleep Behaviour Disorder (RBD), Recurrent Isolated Sleep Paralysis and Nightmare Disorder.

RBD is an important REM-related parasomnia commonly seen in the elderly, with a prevalence of two percent.

The classic characteristic feature is the presence of REM sleep without muscle relaxation (atonia) leading to violent and dream-enacting behaviours. There is also the appearance of various abnormal motor activities, like simple hand gestures, kicking and violent thrashing during REM sleep. This can cause self-injury or injury to the bed partner.

RBD is seen more in male than females, with a ratio of 9:1. RBD has been linked to dopamine dysfunction, and the incidence of RBD increases with neurodegenerative conditions, such as Parkinson Disease, Lewy Body Dementia and Multiple System Atrophy.

Antidepressant medications acutely precipitate or exacerbate dream-enactment behaviour in up to six percent of those affected, and medication-induced RBD is the most prevalent form of RBD among the young (< 40 years old). This should be kept in consideration.



Violent and dream-enacting behaviours can happen in REM-related parasomnias.



REM sleep behaviour disorder (RBD) can be effectively treated with medications.

Management

Patients suspected of suffering from REM-related parasomnias need to be thoroughly evaluated by a physician and undergo a polysomnogram for diagnostic purposes.

Once diagnosed with this type of parasomnia, particularly RBD, safety precautions in the sleeping

environment has to be properly followed. RBD can be effectively treated with medications, such as Melatonin and Clonazepam.

The patient has to avoid certain type of antidepressants which can precipitate RBD, followed by consulting the physician to look out for neurodegenerative conditions, as previously mentioned.

For enquiries, contact SingHealth Duke-NUS Sleep Centre at:

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