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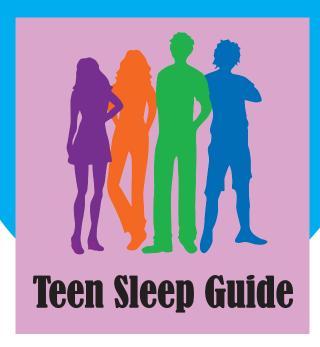
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# How To Sleep Well



Written by
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### **About the publication**

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### Why do we need sleep?

Did you know? We spend 30% of our lifetime sleeping, which means 122 days in bed each year! That's a long time and in our busy modern world this may seem like a waste of your time.



#### Why is sleep important?

Sleeping every night is an essential part of our life. Our bodies are designed to sleep so that we can work effectively for the rest of the day. Therefore, we need to make it a priority!

### So we must be sleeping for a reason. Are there any benefits?

There are lots of benefits from getting a good night's sleep. Sleep not only helps to refresh and rejuvenate our mind and body, but also strengthens a number of our body functions, as shown below.





### What happens during sleep?

During sleep, we are not aware of our surroundings but can still be woken up. Although our body rests during sleep, our brain is still active and goes through cycles of two types of sleep - **REM** (*Rapid Eye Movement*) and **NREM** (*Non Rapid Eye Movement*) sleep.

We start with NREM sleep followed by REM sleep, which is one cycle of sleep that lasts for 1.5 to 2 hrs. We then go through about 5 cycles throughout the night.



#### NREM SLEEP



Here your brain is quiet but your body may move.

- Dozing: Heart rate slows down and body muscles are relaxed.
- Light sleep: We can be woken up easily.
- Deep sleep: Also called 'Slow Wave Sleep', it is hard for us to wake up, but we may sleep walk or sleep talk.
- In this type, our brain is still active, eyes move from side to side underneath our closed eyelids.
- · Our body muscles are relaxed.
- · Dreams happen during REM sleep.

### How much sleep is ideal for teenagers?



sleep and some even less.

8 to 10 hours

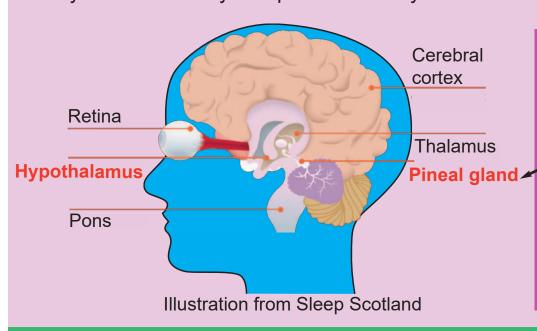


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### Do you have a body clock?

We all have a 24-hour internal clock. Just like a clock that tells us if it is daytime or night time, we have a clock inside our brain to help us sleep at night time and wake up in the morning. It is called 'master clock'. It is in the 'Suprachiasmatic Nucleus' which is located in the hypothalamus of the brain. The master clock regulates tiny biological clocks present in every cell in our body and puts them in sync.



The Master clock sends a messsage to the Pineal gland to release melatonin, a sleep hormone at night time.

### Do teenagers sleep differently?

of the school curriculum.

As a teenager you will notice that your sleep pattern changes significantly as you start going to secondary or high school. Your lifestyle might change dramatically, with late bedtimes and early wake-up times and therefore, the time spent asleep is much less, than before.

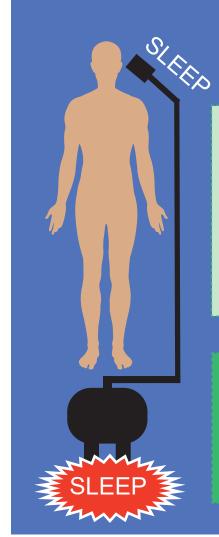
Lifestyle changes: Teenagers tend to have a busy and active social life. You may be using a smartphone, tablet or a game console and in addition, you are having to stay up late at night to meet the demands

Clock shift: Naturally, your brain clock shifts forward in time as your body goes through hormonal changes. This means your natural bedtime and wake-up times are about 2 hours later than before.

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### Your body needs recharging...



Just like your phone that needs charging with Energy (electricity), you need to recharge your body and mind every night with a Good Night's Sleep.

Did you know?

Sleep is the Energy for your brain and it is as vital as breathing, food and water.



### Does it matter if you don't sleep well?

You may be having poor quality of sleep.

This may mean any of the following:

- Difficulty getting to sleep
- Not able to stay asleep
- · Waking in the middle of night
- · Trouble waking in the morning
- Falling asleep frequently during the day
- Feeling tired due to disturbed sleep



Insomnia may include difficulties with getting to sleep, staying aslep or settling back to sleep after waking at night.

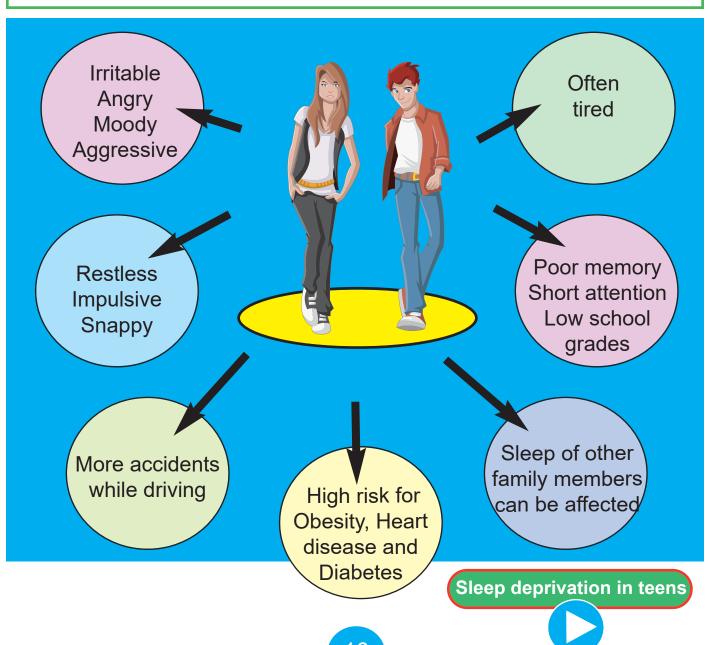
## Does it matter if you don't sleep well?

What happens if you don't get a good night's sleep?

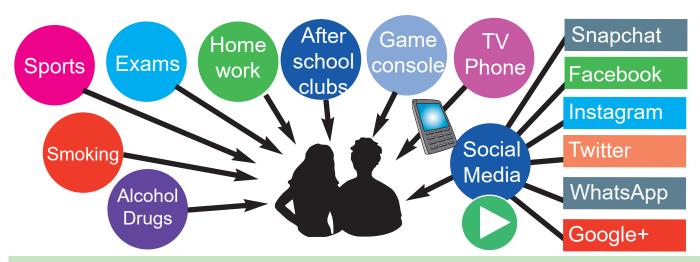
For every night that you don't get enough sleep, you get into

Sleep debt, which becomes massive over the months and years. You need to pay this back to your body and if you don't, your health is at risk.





### You have a busy lifestyle. So what?



### **Education Demands and a Busy Schedule**

As you get into secondary or high school, you may find schoolwork more demanding with regular homework and frequent exams. All of these things can add stress and demand more of your time. This means you may often end up staying awake late at night. However, it is also important to manage your time and balance your schedule with regular exercise and relaxing activities.

### **Evening Drinks**

Did you know? Having tea, coffee, hot chocolate or energy drinks can keep you awake for a long time. This is because these drinks have plenty of caffeine, which is a stimulant. Also smoking, alcohol and illegal drugs can badly affect your sleep. You will find it hard to get to sleep and maintain a good night's sleep.

### Electronics at bedtime and late into the night

Most teenagers have an active social life. You may be spending a huge amount of time on your smartphone, game console or other media devices, or watching a lot of TV before bedtime and late into the night.

These activities keep your brain alert and active and also the bright light from the electronic devices can mess up your sleep. As a result, you may get less sleep or sometimes none. Avoid electronics in the last two hours of the day to get a good night's sleep.

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### Are you a Night Owl?



Do you think of yourself as a night owl, meaning someone who tends to stay up until late at night?

If so, check if you have **DSPD**, a condition also known as 'Delayed Sleep Phase Disorder'. In this condition, the signs are:

Hard to get to sleep and falling asleep more than 2 hours after the expected time

Once asleep, sleeps soundly at night

Difficult to wake up in the morning at the expected time



Sleeping in very late at the weekends and during holidays

#### Danny, a 16-year-old lad

- He finds it hard to sleep at night.
- He enjoys playing games online and is often up playing games till 1am.
- He has trouble waking up at 7am to go to school and often falls asleep in class.
- He is grumpy and very tired during the day.
- On his return from school, he takes a nap for an hour and takes an energy drink.
- At the weekends Danny sleeps at around 2am and wakes up at 12:30pm.

### How did his sleep improve?

He tried several things as suggested at a sleep clinic.

- Aim to sleep for 8 to 10 hours.
- Keep a sleep diary for 2 weeks.
- · Stop naps and energy drinks.
- Chronotherapy (a sleep programme of shifting the bedtime and wake time 2 hours <u>later</u> every night till normal bedtime is reached usually needs specialist supervision).
- A trial of melatonin(See page 22).
- Bright light in the morning helps to "pin" the wake-up time.





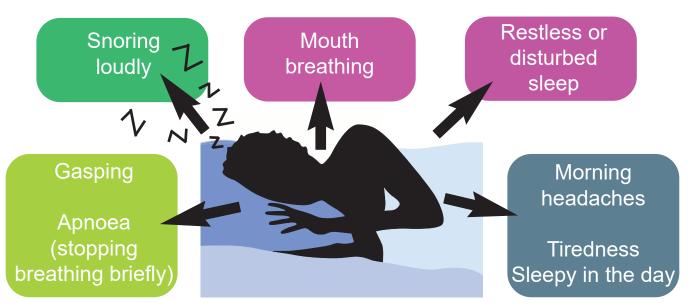
### Is snoring a health problem?

### Do you snore at night?

Don't worry. Many people snore during sleep and don't necesarily have any health problems.

#### When should you be concerned?

Watch out if you experience some of the signs of Obstructive Sleep Apnoea (OSA) as given below:



#### Who is at risk?

People who are more likely to be affected are those with:

- Obesity
- Large tonsils (more so in young children)
- Down syndrome
- · Certain facial and muscular abnormalities

### What can you do?

See your doctor if you are feeling tired or sleepy during the daytime and experiencing any of the difficulties mentioned above. A video recording of your sleep may provide useful information. You may also need further tests.

Living with sleep apnoea

Healthy eating, exercise and weight loss can help people who are overweight or obese.





### Do you have Restless Legs?

Some teenagers may have a condition called Restless Legs Syndrome (RLS). Look out for 'URGE' signs and see your doctor for a check-up.

- Uncomfortable feeling in legs and an Urge to move them
- R It gets worse at Rest
- G It Gets better with movement of legs



Many people with RLS may also experience frequent jerking of legs during sleep, called Periodic Limb Movement Disorder.

#### What can be done if RLS is suspected?

You may be referred to see a sleep specialist for further assessment and tests. One of the tests is to check your iron level. RLS can be treated with iron supplements if your iron level is low.

### Do you get any sleep attacks?

People who are excessively sleepy during the day may have a sleep disorder called 'Narcolepsy'. However, it is rare in teenagers. People with narcolepsy may experience problems such as:

- Frequent sleep attacks during the daytime
- Falling suddenly, if emotional (catalepsy)
- Hallucinations: strange sensory feelings on falling asleep or on waking
- Sleep paralysis, not able to move briefly when going to sleep or on waking up





### What are nightmares?

Nightmares are dreams which can be very frightening and also can disrupt your sleep significantly. However, they are most common during early childhood and both boys and girls are affected. Sometimes the nightmares persist into teen years and even adults continue to have difficulties with nightmares.

### When do you get nightmares?

They occur during the second half of the the night in the REM sleep. The vivid dreams can be so intense and terrifying that you may wake up feeling anxious and worried. You might find it difficult to settle back to sleep quickly. You are often able to recall the dreams which might be about a number of different things, such as monsters, falling down a cliff, being chased by wild animals or attacked by people. Although scary, the nightmares don't usually cause physical harm.

### What can you do for help?

Many people experience nightmares once in a while and may not have persistent problems. You can try a few strategies if the nightmares become frequent and troublesome.

- Keep a regular sleep schedule and maintain good sleep habits.
- Avoid reading horror stories, watching scary films or playing violent games before bedtime.
- Stress, anxiety or trauma can trigger nightmares. Do find out if you are anxious or worried about anything specific and try to address the problem.
- Sometimes it is helpful to write down your bad dream or draw a
  picture of it and change the dream to have a happy ending.
- See your doctor for further advice and support.



### **Mental Health Issues and Sleep**

Having good quality sleep is vital for your physical as well as your mental health. Just as your body can develop asthma or diabetes, your mind can have health issues such as anxiety, depresson or a mood disorder.

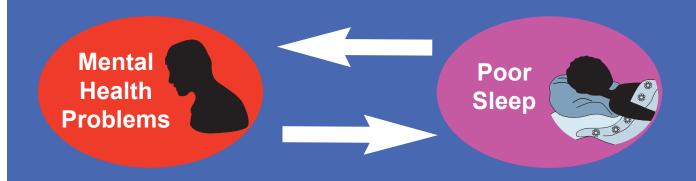
### How to know if you have any mental health issues

- Feeling nervous, panicky or worrying a lot
- Having palpitations (racing heart beats)
- · Often feeling low/sad or upset
- · Feeling tired, irritable or miserable
- Not feeling hungry
- Not doing things you previously enjoyed
- · Having extreme mood swings
- Having poor concentration
- · Experiencing sleep difficulties sleeping more or less than usual



### How does it affect your sleep?

Experts say that due to mental health problems your sleep is badly disturbed but also that a poor quality of sleep worsens mental health.



#### What can you do for help and support?

· Don't ignore your feelings.

See your nurse or doctor for a chat.

- You may be referred to see a specialist in a mental health team.
- You can go online and visit www.youngminds.org.uk to find out more about mental health issues.

**Anxiety and sleep** 





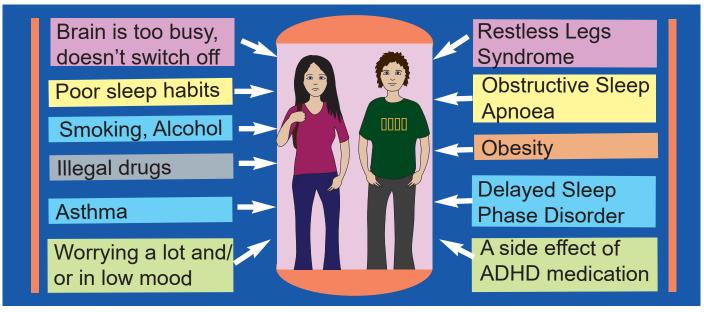
### **ADHD**

ADHD (Attention Deficit Hyperactivity Disorder) is commonly seen in teenagers, who often experience difficulties with short attention span, poor concentration, restless and impulsive behaviour.

Many teenagers with ADHD tend to have varying degrees of sleep problems such as: trouble getting to sleep, frequent waking at night, finding it hard to wake up in the morning, feeling sleepy and often tired during the daytime.

#### I have ADHD. Why can't I sleep well?

Well, sometimes it is obvious what might be the cause and other times it is difficult to figure out what's going on. Some causes are:



#### What can I do to sleep well?

Always check your sleep habits first by recording a diary for 2 weeks (see page 23). Try to relax before bedtime. Stay away from screens (smartphone, tablet, computer or TV) for 1-2 hours before bedtime.

See your doctor for further help and advice. Let them know if you are feeling tired, moody or anxious. If you are taking any ADHD medication, check whether your sleep has got worse since your medication was commenced or altered.



### **Epilepsy**

### What is epilepsy?

It is a condition that affects the brain of the person, causing repeated seizures (for more details, see our book 'My doctor says I have Epilepsy: A child's journey', available from www.healthinsights4u.com).

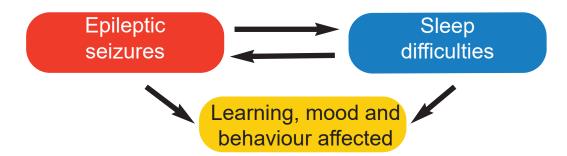
#### What causes sleep problems?

There may be several reasons:

- Some teenagers may develop seizures at night time which can wake them up or disrupt their sleep.
- Certain medications for seizures can cause more sleepiness or trouble getting off to sleep.

#### How does poor sleep affect seizures?

Having a poor quality of sleep can also make the person tired and lead to more seizures.



#### What can you do to get help?

See your doctor for a check-up if you are not getting enough sleep or if your seizures are not under control.

### **Learning Difficulties (Intellectual Disability)**

Teenagers with learning difficulties more often experience sleep difficulties, compared to other teenagers. One of the reasons is that they may develop physical and psychological difficulties much more commonly, which in turn cause a poor quality of sleep.

Always maintain a bedtime routine and practice healthy sleep habits (see pages 20 and 21). See your doctor for further advice.



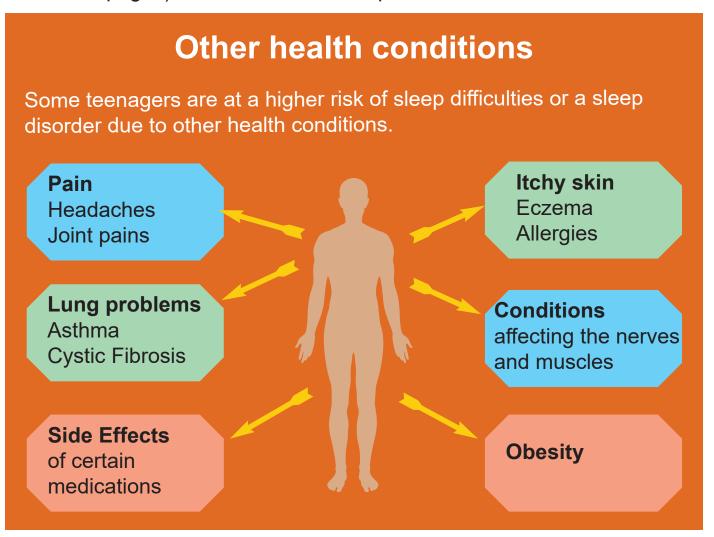
### **Autism**

Autism spectrum disorder can affect different people to a different degree, but main features include: difficulties with social interaction, communication and coping with change, often with rituals and sensory issues (e.g. not coping with loud sounds).

Teenagers with autism may have low levels of melatonin at night and often tend to have other conditions such as anxiety, low mood, constipation and heartburn, etc. As a result, they may experience significant trouble with getting off to sleep or maintaining sleep. They may wake in the middle of night or early in the morning.

### What can you do?

Keep a sleep diary for 2 weeks, maintain a good sleep routine (read the next pages) and seek medical help.





### Top tips to sleep well

There are some simple things you can do to sleep better at night.



- Morning bright daylight is good for you to reset your body clock. Avoid napping during the daytime as this can make it difficult for you to get to sleep at night.
- Stay active and do at least 1 hour of exercise or physical activity per day. However, make sure this happens at least 3 hours before your bedtime.



BEFORE BEDTIME

Ten tips to sleep well

- Avoid food and drinks containing caffeine, such as chocolate, coffee, tea, cola or energy drinks in the late afternoon and evening.
- A warm bath may help an hour before bedtime. Also make sure you don't eat too much or too little close to your bedtime.
- Try to avoid vigorous and stimulating activities before sleep time.
- No TV, computer/laptop, tablet/iPad or game console for 1-2 hours before your bedtime.

Try to relax as much as possible.

- Listen to calming music or read a book
- Try meditation, yoga, deep breathing or muscle relaxation (see page 31)
- Visual imagery (imagining and thinking about something nice and relaxing)



### Top tips to sleep well



- At bedtime have a routine and go to bed at nearly the same time every evening. It can be a little flexible depending on your activities and lifestyle.
- Bedtime and wake up time in the morning should each be about the same time during school days and weekends. There should be no more than one hour difference in them between a school night and weekends.
- 12

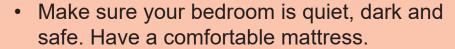


Avoid oversleeping during weekends.



YOUR BEDROOM

> Blue light effects on sleep



 Ditch the electronics and make your bedroom a tech-free zone.

 You cannot relax and sleep easily if you are excited after watching TV, playing games or using a mobile phone.



 Did you know? The blue light from the screens (electronic devices) goes through your eyes to the brain clock, which will be tricked into believing that it is daytime. It will then shut down your sleep hormone, melatonin. So you cannot sleep well.



Hey!
It is daylight,
so stop
making
melatonin



### What is melatonin? Does it help?

#### What is melatonin?

Melatonin is a natural sleep hormone which is essential to run the 24 hour rhythm of our brain clock. It is produced by the pineal gland in the brain (see page 8).

Melatonin is released when night falls and it gradually reaches a peak level with darkness, before decreasing when light reappears in the morning. However, due to pubertal changes, melatonin release is delayed and along with the shifting forward of their brain clock, teenagers tend to sleep late.

#### Natural sources of melatonin

Certain foods are rich in melatonin and include:

- oats, sweetcorn
- rice, ginger, barley
- tomatoes, orange, pineapple, banana



### How can melatonin help?

Melatonin helps to kickstart sleep but doesn't maintain it. So it is important for you to keep a regular sleep routine, a dark and guiet bedroom and stay away from caffeinated drinks.

#### Does melatonin come as a medication?

In the UK, you need to see your doctor for a prescription. Melatonin comes as a tablet, capsule or liquid form and needs to be taken 30 to 60 minutes before bedtime.



#### Melatonin and medical conditions

It is particularly helpful in certain conditions.

- Autism
- ADHD
- Cerebral Palsy
- Visual impairment

See your doctor for further help and advice.



### **Teen Sleep Diary**



You can use the diary below for 2 weeks to record your sleep pattern.

Day and Date	Mon	Tue	Wed	Thu	Fri	Sat	Sun
During the day Nap (N) Exercise (E)							
Before bedtime TV (T) Phone (P) Game console (G)							
Bedtime (BT) Sleep time (ST)							
If woke up at night, how long for and what did you do?							
Snoring? (Sn) Wake up time in the morning							
Your mood if irritable (I)							
Tired daytime							
Feeling low, moody, worried							
Any other comments							



### **Check your 'Sleep Score'**



Check your sleep habits during the last 4 weeks (school days and weekends). Please **circle your score** for each answer under the sections 'school days' (weekdays) and 'weekends'. Then work out your total scores on the next page and follow the recommended plan.

During the last 4 weeks (school days and weekends)

During the last 4 weeks (school days and weekends)	on	on
1. Before bedtime, I watch TV/Youtube, play game	school	week
console and/or use my phone, snapchat/facebook for:	days	ends
a. Less than 1 hour	1	1
b. 1 to 2 hours	2	2
c. 2 to 4 hours	3	3
d. Over 4 hours	4	4
2. I go to bed around:		
a. 9 pm to 10 pm	1	1
b. 10 pm to 11 pm	2	2
c. 11 pm to 1 am	3	3
d. 1 am or after	4	4
3. I fall asleep in:		
a. Less than 30 minutes	1	1
b. 30 minutes to 1 hour	2	2
c. 1 to 2 hours	3	3
d. Over 2 hours	4	4
4. Overall, I sleep for:		
a. 8 to 10 hours	1	1
b. 5 to 7 hours	2	2
c. 2 to 4 hours	3	3
d. Less than 2 hours	4	4

	Score	Score
Check your 'Sleep Score'	on	on
During the last 4 weeks (school days and weekends)	school	week
5. I feel I am sleeping for 8 to 10 hours at night:	days	ends
a. Always (Happens every school day or weekend)	1	1
b. Often (3-4 school days/week or 3 weekends)	2	2
c. Sometimes (1-2 school days/week or 1-2 weekends)	3	3
d. Rarely (less than 3 school days/month) or Never (has not happened)	4	4
6. I feel sleepy or tired at school and/or at home:		
a. Rarely (less than 3 school days/month) or Never (has not happened)	1	1
b. Sometimes (1-2 school days/week or 1-2 weekends)	2	2
c. Often (3-4 school days/week or 3 weekends)	3	3
d. Always (Happens every school day or weekend)	4	4
7. I have trouble focusing at school and/or at home:		
a. Rarely (less than 3 school days/month) or     Never (has not happened)	1	1
b. Sometimes (1-2 school days/week or 1-2 weekends)	2	2
c. Often (3-4 school days/week or 3 weekends)	3	3
d. Always (Happens every school day or weekend)	4	4
My total score		

### Compare your scores on school days and weekends.



A score of 1 for each answer or a total score of 7 is good and ideal for teens. This means you are doing well.



A score of 8 or more is a poor score. A higher score means you are not sleeping well at night and that you are getting more sleepy/tired during the daytime. This will affect your school grades and wellbeing.

We recommend that you try the 6 steps consistently (see next page) to improve your sleep pattern. Try to keep the same routine and not to have more than one hour difference between sleep and wake times on schooldays vs weekends. See your doctor if your difficulties persist (see page 28).

### Six Steps to a Good Night's Sleep

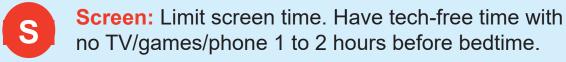
Try the six steps given below for achieving and maintaining a good night's sleep. Remember 'SCREEN'.













Caffeine: Stay away from caffeinated drinks after lunchtime.



Routine: Establish a routine for bedtime and wake up time. Relax: Try relaxing before bedtime. You can listen to calming music or read a book.



Electronics: Make your bedroom a tech-free zone. Ban the electronics from your bedroom such as mobile phone, tablet/iPad, game console or TV.



**Exercise:** Have regular exercise for at least 1 hour every day. This should happen at least 3 hours before your bedtime. **Expose** to bright daylight in the morning which helps to reset your body clock.



NO: Say 'No' to smoking, alcohol and illegal drugs.

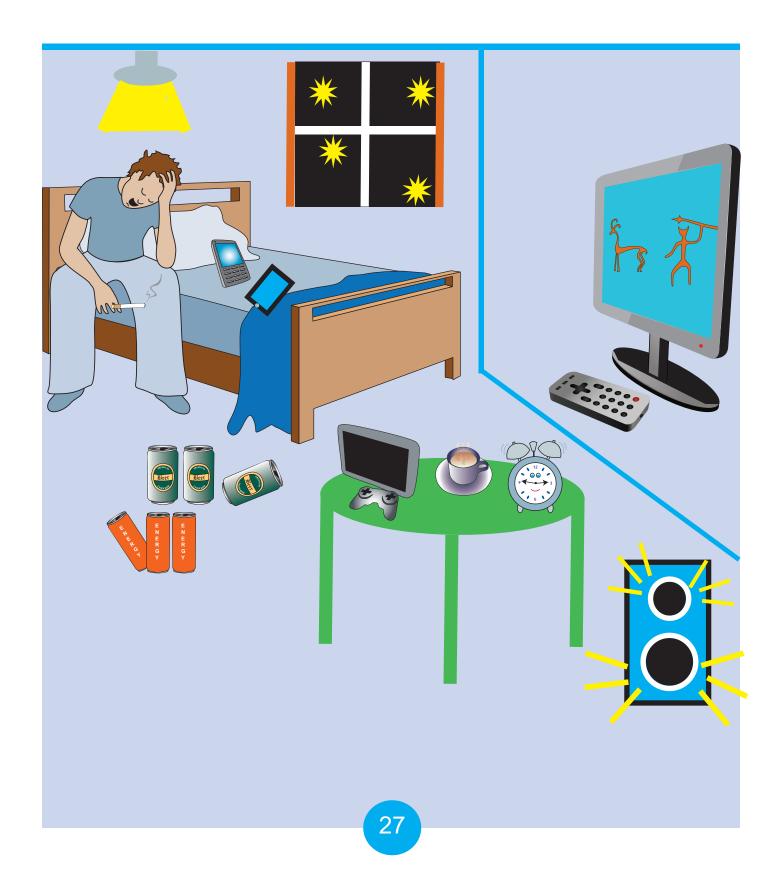






### **Sleep Quiz**

Here is the sleep quiz for you to look at the picture below and find out the 10 clues which can contribute to sleep difficulties. Check the correct answers on page 30.



### When should you see your doctor?

Most teenagers find it difficult to get enough sleep at night time, so you are not alone.

However, having a bedtime routine, avoiding electronics in your bedroom and having a healthy lifestyle with exercise can help a great deal.



#### When do you need to seek help from your doctor?

It is important for you to let your parent or carer know about your difficulties. See your doctor if you have any of the following, as listed in the table.

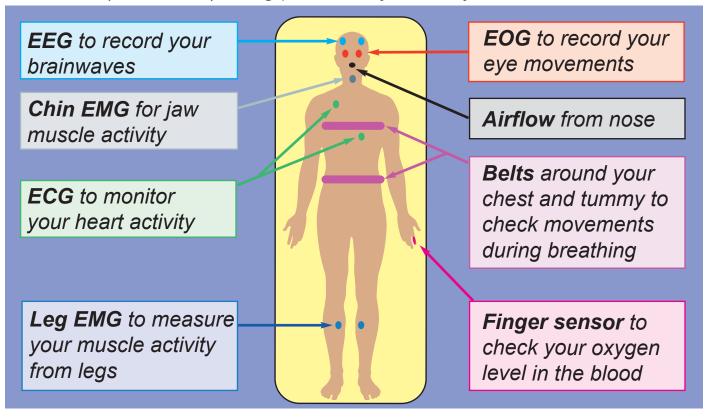
		Coo	
		Yes	No
1	Feeling excessively tired during the day		
2	Often sleepy at school during the daytime		
3	Not achieving grades at school as expected		
4	Frequent body aches or any other illness affecting your sleep		
5	Feeling sad, low or worrying a lot		
6	Hard to settle to sleep and hard to wake up (2 hours longer than expected times) DSPD?		
7	Snoring, pauses in breathing at night, morning headaches, tiredness etc. Possibly, Obstructive Sleep Apnoea		
8	Feeling discomfort in legs, an urge to move them at rest and worsening in the evenings or night time - Possibly, Restless Legs Syndrome		



### Are there any tests?

**Tests for sleep problems/disorders** - Your doctor may refer you to see a paediatrician (child specialist) or to a specialist sleep centre for further assessment. Some of you may need further tests.

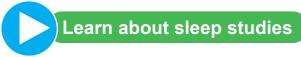
Polysomnography (PSG): This is an an overnight sleep study to find out about your sleep patterns. It is carried out in a sleep centre or a hospital setting. PSG is helpful to assess conditions such as Obstructive Sleep Apnoea, sleep-related seizures or Periodic Limb Movement Disorder. PSG measures a number of things with several stickers (electrodes) being placed on your body.



Actigraphy: uses a device that looks like a digital watch to measure your body movements and to record your sleep and wake times.

Multiple Sleep Latency test: a daytime nap study to measure sleepiness. You get a chance to take daytime naps and it tests how quickly you fall asleep. It is used to diagnose narcolepsy.

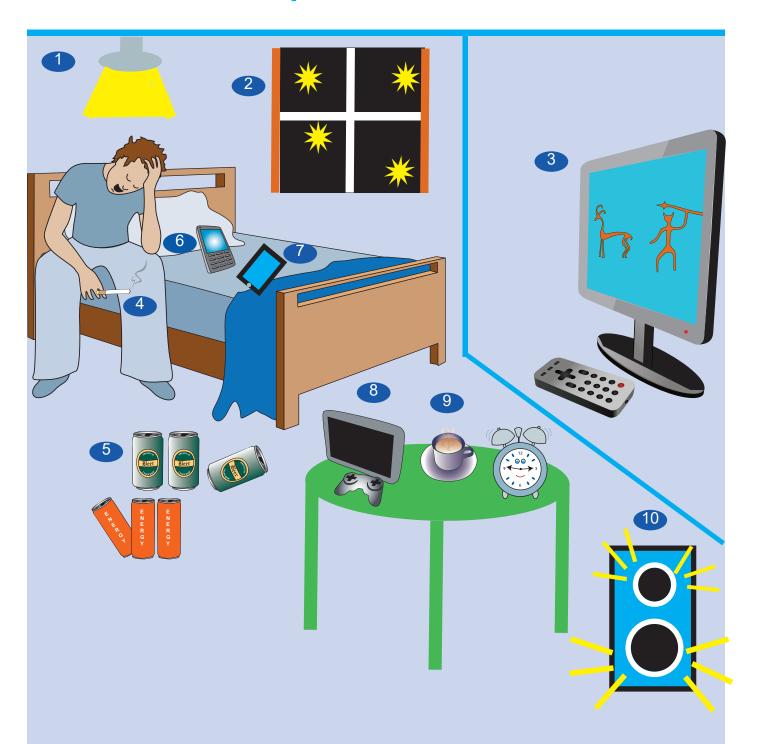
Video recording of your sleep pattern.



**EEG**: Electroencephalogram **EMG**: Electromyogram **ECG**: Electrocardiogram **EOG**: Electrooculogram



### **Sleep Quiz Answers**



- 1. Bright light on
- 2. Window with no blackout curtains
- 3. TV is on
- 4. Smoking
- 5. Alcohol/Energy drinks

- 6. Mobile phone
- 7. Tablet/iPad
- 8. PlayStation/Xbox/Wii
- 9. Tea/Coffee in the evening
- 10. Loud music on

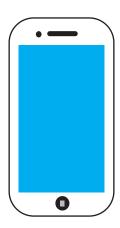
# Apps, websites and support groups

This book is available as a free eBook full of animations, sounds and video links. Please click here to download it onto your iPad/iPhone or Macbook.

Visit **Teen Sleep Hub** from the Sleep Charity, UK. You can access lots of useful tips, videos and can also download a free eBook for teens.

Catch it (free app) - Learn how to manage your feelings like anxiety and depression. You can use the link below.

Google Play App Store



#### **Sleep Scotland**

www.sleepscotland.org Sound Sleep is an education programme that raises teenagers' awareness of the importance of sleep for their health and wellbeing.

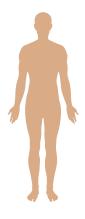


### **Young Minds**

www.youngminds.org.uk



Progressive muscle relaxation training video on YouTube by Mark Connelly. It can be helpful if you are anxious or stressed



## How To Sleep Well Teen Sleep Guide

