# Royal Papworth Hospital 

NHS Foundation Trust

## What to do when you can't get to sleep

Strategies to tackle insomnia

## Introduction

This is a leaflet giving advice about what to do when you can't sleep. This problem is known as insomnia. It is a common condition, often very frustrating and may lead to anxiety, low mood and feeling exhausted during the day.

The causes of insomnia are varied; often there is a trigger factor. In some cases people have difficulty sleeping for a few days or weeks and then things improve. However, in some cases it becomes increasingly difficult to get to sleep. Despite desperately trying to get to sleep, the problem gets worse and insomnia can last for months or years.
Whatever the cause, and however long it's been a problem for, there are techniques and strategies that can help.

This leaflet first gives a summary of the main strategies that can help improve sleep. The main part of the leaflet then describes what sleep is and how it is controlled. We explain how insomnia develops and then give practical advice and describe techniques that improve sleep.

The leaflet is purposefully quite detailed to explain the strategies clearly and the reasons why they can improve sleep. Some people may want to read the whole leaflet from beginning to end, others may want to dip in and out using the contents page to find relevant sections. At the end of most sections there are 'take home messages' which summarise the important points.

The techniques described in this leaflet can take time and require perseverance - often there is no 'quick fix'. Treating insomnia needs effort and commitment, but the aim is for long term improvements in your sleep pattern enabling you to feel better during the day.

## Summary of strategies to help you sleep

Below are the key messages from this leaflet:

- Stick to a regular bedtime and wake up/ out of bedtime. This is a fundamental and important strategy in order to regulate the internal body clock and homeostatic sleep drive.
- Activities that promote sleep: getting outside every day, regular daily activity, and winding down before bed.
- Avoid: caffeinated drinks in the afternoon and evening, using computer mobile phones or screens in the bedroom, clock-watching overnight, alcohol before bed, smoking during the night.
- If lying awake overnight: mind games and muscle relaxation can help settle a 'racing mind' and allow the body to rest.
- Retrain the brain to associate bed with sleep by getting out of bed and doing something relaxing in a different room if you are lying awake for more than 30 minutes.
- Be realistic: we all have good nights and bad nights, and it is normal to wake up occasionally overnight.
- Peserverance is key - even if you have a bad night, keep going, the next night will probably be better.


## The 'what', 'why', and 'how' of sleep

What is sleep and why do we need it? Sleep is a state of reduced consciousness that humans and the vast majority of all living creatures experience. It is thought that sleep helps with learning and memory processes as well as 'cleansing' the brain of waste chemicals and proteins that build up within brain cells.

Both being awake and being asleep are active processes that are controlled by specialised areas in the brain which use combinations of signalling chemicals called neurotransmitters which help to keep us awake or help to maintain sleep.

When we are asleep, we cycle through different sleep stages.

## Non-REM sleep

We usually enter Non-REM (NREM) sleep straight after we fall asleep. NREM sleep is
 divided into stages 1,2 and 3 . Stage 1 is light sleep, and stage 3 is the deepest stage of sleep.

## Rapid Eye Movement (REM) sleep

During this stage of sleep we have dreams. Sometimes we will remember them if we are woken during this stage of sleep, but often not. During this stage of sleep our brain paralyses all our muscles except for those that control eye movements and the diaphragm that helps us breath. We therefore move our eyes during REM sleep, but otherwise usually do not move the rest of our body.

## Arousal states

It is normal for people to wake up a few times a night for short periods. Usually this is not too disturbing, but when it is difficult to fall back to sleep again it can become frustrating and lead to insomnia.

## How much sleep do we need?

While sleep is important and vital for life, the amount of sleep needed is extremely variable. On average, most people need seven to eight hours of sleep. However some people can manage well on four to five hours sleep, while 'long sleepers' may require at least nine hours. The amount of sleep needed tends to reduce as we age.

The quality of sleep and then being able to stay awake and feel refreshed during the day is more important than the quantity of sleep you get. Additionally, it is very common for sleep patterns to vary on different nights. People often sleep well on one night, and not so well on another. Sometimes this is because there is an obvious cause such as being unwell or worried about something, but often there is no particular reason.

## Take-home messages:

1. Sleep is an active process split into NREM and REM sleep. Normally there are also short lived times of being awake during the night.
2. The amount of sleep needed varies between individuals.
3. Everyone has good nights and bad nights.
4. The quality of sleep is more important than how much sleep you have.

## Factors that affect sleep and wake states

Sleep and wake states are 'controlled' and affected by factors in the environment, certain neurotransmitters and hormones in our brain, as well as our physical and psychological state.

Light and the internal clock
Hard wired in us we have an internal body clock, which regulates our 'circadian rhythm'. This is a term used to describe changes in a variety of physiological processes, including levels of alertness, over the course of a 24 hour period.

The diagram below shows the circadian alertness drive: the black line indicates levels of alertness which normally mirror the circadian drive. The diagram shows that normally our circadian rhythm leads to increased levels of alertness at two points during the day: in the morning and early evening, but then reduces at night when we need to be asleep.


This circadian rhythm is regulated by our sleep/wake schedule and importantly by light exposure. Being outside, even if it is an overcast day in winter, provides more light exposure than being in a brightly lit room inside. Light exposure in the early morning is especially good at regulating the circadian rhythm, helping us to stay awake during the day. In contrast, exposure to light from screens (e.g. TV's, mobile phones, iPads), especially in the evening and at night will disrupt the circadian rhythm and will keep us awake when we need to be asleep.

A regular sleep/wake schedule also helps stabilise the internal body clock and the circadian rhythm.

The homeostatic sleep drive: the longer we have been awake, the sleepier we feel. This is due to the 'homeostatic sleep drive'. This develops due to a build up of a chemical called ADP in the body. ADP helps us fall asleep: the higher the level, the easier it is to fall asleep. Levels rise the longer we have been awake. ADP levels will fall if we have a nap during the day, and this will make it harder to fall asleep at night. Caffeine stops ADP working which is why coffee and other caffeinated drinks help us feel more alert. The diagram below shows how the homeostatic sleep drive increases the longer we have been awake (causing us to feel increasingly sleepy), and reduces when we sleep (so we should feel alert and refreshed when we wake up).


Physical factors:

- Being relaxed and comfortable helps sleep, but being in pain, uncomfortable, or having itchy skin will make it more difficult to sleep.
- Physical activity: Regular physical activity helps improve sleep quality and relieves stress. Outdoor activity may be best because both the light exposure and exercise helps regulate the circadian rhythm and consolidate sleep. However vigorous exercise too close to bedtime may make it more difficult to get to sleep.
- Food and drink: Eating too close to bedtime can sometimes mean that you feel too full or have acid reflux overnight which can disturb sleep. Conversely going to bed hungry will keep you awake. Having an evening snack such as some toast or cereal with a milky drink can help.
- Caffeine: As explained above, caffeine has a stimulating and alerting effect which will keep you awake. The effect of caffeine lasts for several hours - about 6 hours on average, so avoiding drinking coffee, soft drinks containing caffeine such as Coca-Cola, or energy drinks after early afternoon will help promote sleep.
- Alcohol: Alcohol is a sedative meaning it will help send you to sleep, but the effect wears off quite quickly and often causes broken sleep in the later parts of the night. In addition, it can exacerbate snoring and breathing problems overnight which can disturb sleep. Limiting alcohol in the evening can help you get a better night's sleep.


## Psychological factors:

Being relaxed, content and feeling safe makes it easier for the brain to settle into a sleep state. Conversely, feeling anxious, worried or trying to think about a problem stimulates the brain and keeps it awake. Strategies to help manage anxiety at bedtime or overnight are explained later on.

## Medications, drugs and sleep:

People often are concerned about the effect of medications on their sleep. This is understandable. The effect of medications on sleep is complex. Some medications can disrupt sleep by causing disturbing dreams or aggravating leg movements overnight. Others may stimulate the brain making it more difficult to switch off. If you think your medications may be making your sleep worse, it would be worth discussing this with your GP or sleep specialist.

In contrast, some people want a tablet to help them sleep. Many drugs have sedative properties meaning that they can cause drowsiness. Painkillers such as codeine, morphine-based drugs, and pregabalin and gabapentin are sedatives. A class of medications called 'z' drugs (e.g. zopiclone and zolpidem) are marketed as sleeping tablets. These can be helpful, especially for short-term management of insomnia in combination with non-drug strategies. However 'z' drugs can have side effects such as daytime drowsiness which in some people, can lead to falls and confusion. Occasionally they can cause dependency meaning that some people become 'addicted' to them. In the UK, clinicians are reluctant to prescribe sleeping tablets because other non-drug techniques have been shown to be equally effective, have a longer lasting benefit and are free of side effects.

There are also herbal remedies that are marketed as promoting sleep. These may be helpful, but often there is very limited or no evidence of beneficial effects on sleep. While popular belief is that these are safe alternatives to prescription drugs, herbal remedies may cause side effects in some
people. Street or recreational drugs can be either sedative or act as stimulants depending on the drug. They should be avoided and most are illegal.

## Take-home messages:

1. The main influences on sleep are daylight and the internal sleep drive driven by levels of ADP.
2. Having a regular bedtime and wake-up time stabilises the internal body clock and promotes good sleep quality.
3. Regular physical activity helps improve sleep quality.
4. Caffeine and alcohol too close to bedtime can disrupt overnight sleep.
5. Being comfortable and relaxed helps to promote sleep.
6. Non-drug strategies for insomnia are just as effective as sleeping tablets and have longer-lasting effects.

## Insomnia and how it develops:

Insomnia is a condition describing an inability to get to sleep or stay asleep. It is often frustrating, and can lead to low mood and anxiety which may then exacerbate poor sleep. People feel tired during the day, but when they go to bed a common feeling is that their brain suddenly switches on, they are wide-awake and they feel that their brain doesn't seem able to turn off.

Sometimes there is a trigger for insomnia - often a stressful event or a change in routine. We all have stressful events from time to time, and it is common for sleep to be disrupted at these points. Our sleep pattern usually improves again, but in some cases our brain seems to get into a cycle of not being able to go to sleep. We might then develop behaviour or habits that, unknowingly, make the situation worse, and end up with a long-term problem where there is a loss of connection between being in bed and sleeping. The key to tackling insomnia is to try to reduce any anxiety around going
to sleep and to re-develop that connection between being in bed and being asleep.

## Take-home messages:

1. There may be an event triggering insomnia but it can become a chronic problem leading to anxiety, low mood and affecting daytime functioning.
2. The brain loses the connection between bed and sleep: the key to tackling insomnia is to retrain the brain to associate bed with sleep.

## What to do when you can't sleep

This section provides advice on a number of techniques to try when you can't sleep. There are two aims:

1. Helping the brain to switch off when it is bedtime. This involves 'sleep hygiene' strategies, and 'games' that help settle the mind when it can't switch off at night.
2. Retraining the brain to associate bed with sleep. This involves using strategies to maximise the chance of being asleep when you are in bed.

This 'therapy' is known as Cognitive
Behavioural Therapy for Insomnia (CBTi).
You may have heard of CBT in the context of helping people deal with anxiety or low mood. CBTi uses principles of CBT in that it tries to tackle unhelpful thoughts and behaviours and teach new beneficial strategies, but the focus is only on your current sleep problem. It does not go back to look at what might have triggered the problem, because usually, the original problem is no longer contributing to what is currently causing insomnia. The strategies included in CBTi have been shown to improve quality and quantity of sleep with long term benefits.

Not all the strategies will suit everyone, and one technique or change alone may not help. However, a bit like doing a jigsaw where the more pieces you have fitting together, the better the picture is, the more strategies you use (and the more effort you put in), the
better the chance of getting a better night's sleep.

It can be helpful to 'rehearse' certain techniques during the day: trying to tackle something new when you can't sleep in the early hours of the morning may be stressful and counterproductive. Having a plan in place before the night can be more successful.

Don't worry if sleep doesn't improve immediately. It can take time to get used to new routines and behaviours and for the brain to 'relearn' how to get to sleep. Expect to have good nights and bad nights. Having a bad night does not mean failure or that you will never have any more good nights. We all commonly have nights where sleep is disrupted or of poor quality. That is normal. Don't give up, keep using the techniques and with time there should be improvement.

## Take-home messages:

1. The aim of CBTi is to help the brain 'switch off' when you go to bed, and to re-learn to associate bed with sleep.
2. The more strategies you try, the better the chance of success: no pain no gain!
3. Everyone has good nights and bad nights: that is normal.
4. Teaching your brain to 'relearn' how to sleep takes time, don't expect things to improve immediately.

## Sleep hygiene

Sleep hygiene is the term used to describe activities or behaviours that help improve quality of sleep. Sometimes practicing good sleep hygiene is all that is needed to improve sleep. The following top tips can be tried:

- Set a regular wake time and bedtime. The brain likes routine, and having a regular sleep and wake time helps the brain to know when it is time to go to sleep and when it is time to wake. As mentioned earlier, a regular sleep and wake schedule helps regulate the internal body clock (the circadian rhythm) and the homeostatic sleep drive. A fixed wake time is the most important as it is often easier to control and will act as an 'anchor' to help maintain a regular schedule. Having a regular wake time, even if you've had a bad night's sleep, helps regulate and allow time for the homeostatic sleep drive (the level of ADP) to build up and will mean you will hopefully sleep better the following night. Ideally keep the same wake time and bedtime seven days a week.
- Don't clock watch: While it may be tempting, counting the hours you are lying awake often leads to anxiety about how little you are sleeping, or worry about the fact that you will need to be up in a certain amount of time. This anxiety will keep you awake, so it is best to place clocks or mobile phones in places you will not be able to see them. Note: even if you are asked to complete a sleep diary, you only need to give an estimate of times you are awake and asleep - you should not look at clocks/mobile phones to give exact times.
- Get outside during the day. Daylight helps promote a stable sleep and wake cycle. Getting outside into daylight for at least 15 to 20 minutes every day if you can, no matter what the weather is like, will help signal to the brain when you are meant to be awake. Exposure to daylight first thing in the morning is best. In the winter months getting outside into
daylight is harder. Light boxes (which some sleep centres can lend, or you can buy yourself) used in the morning can help. The amount of light they emit is not as strong as you would be exposed to outside, even on a dull winter's day, but they are useful for helping regulate body clocks.
- Be active. Physical activity during the day helps people sleep better and helps us relax. Try to do at least 30 minutes of activity every day. Ideally try to avoid vigorous strenuous exercise within a couple of hours before going to bed as it may disrupt sleep.
- Relax before going to bed. Give yourself a chance to wind down. If you go to bed immediately after finishing work or being busy, the brain may find it hard to switch off as it will still be trying to work through problems and be overstimulated. Instead of checking that last email, try watching something enjoyable on TV, playing some music, doing a jigsaw, having a warm bath, reading, or talking to friends and family. Any activity that is relaxing and enjoyable but not too exciting or stressful can help you to unwind.
- Go to sleep in a dark and quiet room. Light will 'trick' the brain into thinking you should be awake. Use an eye mask or blackout curtains if light will bother you. Distracting sound can be alerting and interfere with sleep. However, some people find listening to quiet relaxing music or sounds helps them get off to sleep. Try to ensure that whatever you are listening to does not continue to play all night. Earplugs can be very useful if there is disturbing noise.
- Avoid screens in the bedroom. As mentioned earlier, TV screens, iPads and mobile phones emit light which will signal to the brain that you should be awake and will disrupt the circadian rhythm. Using these while in bed will make it harder for you to get to sleep. Switch off or put phones on silent, and avoid watching TV, using iPads or
computers in the bedroom.
- Keep the afternoon and evening caffeine free. Caffeine in coffee, coke, and energy drinks is a stimulant. Even decaffeinated tea and coffee contain some caffeine. As described earlier, ADP is a chemical that builds up the longer we are awake and it helps us go to sleep. Caffeine stops the ADP from working and so keeps us awake. On average caffeine stays in our bodies for about six hours, much longer than most people realise, so avoiding caffeinated drinks after early afternoon will help promote sleep.
- Eating before bed: Being hungry will keep you awake, but having a heavy meal just before going to bed may feel uncomfortable when trying to get to sleep, or cause reflux symptoms which can disturb sleep. Try to eat earlier in the evening, and have a snack before bed if needed, such as a long acting carbohydrate, e.g. toast or cereal with a milky drink.


## Contain any worry

Life can be tricky and sometimes stressful. At night worries can seem much worse and even little things can become very stressful. We try to relax but these issues can become intrusive and they go round and round in our minds. We can't switch off, we become anxious, stressed and can't get to sleep.

To try to prevent this cycle of worry and anxiety at night it can be helpful to try, as much as possible, to deal with worries during the day before going to bed. Even if you can't solve a problem or get rid of whatever is making you anxious, you can try to take measures to contain any anxiety so that you don't have to worry about it at night. Some strategies are suggested below:

- Talk about any worries or concerns with a friend or family member during the day. This might help to share the load, so you don't feel that you are having to deal with it alone.
- Try to have a plan. Even if you can't solve the problem, make a plan before you go to bed about what you are going to do the following day. Even if the plan is that you are going to think about it again tomorrow, having a plan means that you no longer have to worry about it overnight.
- Write your worries and plans down. Rather than having thoughts going round in your head, writing down each worry or concern can help contain anxiety, make the problem seem more manageable and can help you to feel more in control

Ideally try to do this before going to bed, but if in the middle of the night, there is something else that crops up and worries you, have a notebook by the side of the bed to jot it down, so that you can then forget about it and tackle it in the morning.

## Progressive muscle relaxation

The importance of relaxing before bed has been mentioned above. In addition, relaxing while in bed is important in order to relieve muscle tension, helping the body rest and making it easier to get to sleep.

Sometimes we have tension within our muscles without realising it. Progressive muscle relaxation is a technique that uses a systematic method to tense and then relax each muscle in the body sequentially. The idea is to increase awareness of which parts of the body may be tense, and then to help those areas to relax. By giving the brain something to focus on, the technique also helps the mind to settle.

There are various methods and on-line versions. Whichever version you choose ensure that any screen light from a computer or mobile phone is blocked and any voice talking you through the technique is relaxing.

Below is one version that you can learn. It is best to practice it during the day first so that when you are using it in bed it is familiar and routine. Don't rush. Try holding muscle tension for five to 10 seconds before relaxing. Feel the difference between muscle tension and relaxation. Between each group of muscles, relax and focus on your breathing for a few seconds before continuing. The routine should be gentle, and not painful. Don't worry if your mind wanders during the routine, start again from where you left off.

- Gently breathe in - hold it for the count of three, then gently let go. Do this for about two minutes. Focus on your breathing.
- Gently pull your toes up towards your knees, hold the position, and then let go.
- Press your heels downwards into the bed, hold the position, and then let go.
- Pull you knees together, hold the position, then relax and let them drift apart.
- Squeeze your buttocks together, hold and then let go.
- Gently pull in your tummy muscles towards your spine - hold the position, and then relax.
- Shoulders: gently pull them up towards your ears, just enough to recognise the tension, hold the position, and then let go.
- Gently press your elbows and upper arms to the sides of your body. Hold that position, and then relax.
- Hands: gently clench your right hand, hold, and then relax. Next do the same with your left hand.
- Push your head slightly forward so your chin is towards your chest. Hold the position, and then let go.
- Grit your teeth together: feel the tension for a few seconds and then relax and let your jaw sag.
- Lips: press your lips tightly together, hold and then relax. Purse your lips forward, hold for a few seconds and then relax.
- Press your tongue to the roof of your mouth. Keep it there for a few seconds and then let it drop loosely.
- Eyes: screw them up together. Hold that tension, and then relax.
- Forehead: frown and hold that position for a few seconds and then relax.
- Finish by spending a few minutes focussing on breathing quietly in and out and enjoying the feeling of your body being free of tension.


## Mind games

If you have insomnia, it can often feel like your mind is racing - your mind goes from thinking about one thing to another. Sometimes this can be about things that you have done during the day or something that is worrying and stressful. Even if you don't feel your mind is racing, it can still be difficult to switch off. In order to distract your mind and allow it to relax and settle so you can go to sleep, concentrating on something different, that is not at all important, and not too exciting or frightening, can help.

Traditionally, counting sheep is thought to help get to sleep, but it is probably a bit too easy, and not an engaging enough task. The 'mind games' described below are a more sophisticated version of counting sheep, but they are more likely to distract the mind from ruminating on unhelpful thoughts, and allow it to settle and drift off to sleep.

If you've not tried these before, practising the techniques before going to bed can help you to get used to what to do. If at night you find that, while you are trying a mind game, intrusive thoughts return and you can't concentrate, that's OK and normal. Don't worry, just try to go back to where you were before you lost concentration. If one mind game doesn't work, try another.

## Suggestions:

- Pick a category (e.g. animals, famous people, countries, names, it can be anything you like), then think of an example within the category beginning with the letter A, then continue with more examples, each beginning with the next letter in the alphabet. For example, if you pick countries, you could start with America, then Bolivia, Costa Rica, etc. Alternatively, once you have picked a category, chose just one letter and try to name as many examples beginning with that letter (e.g. if the category was names, and the letter was R, you could have Ronald, Rochelle, Rachel, Romeo, etc).
- Start with the number 100 , or a random number above 100, then count backwards in 7's. For example, start with 236, then take away 7 would be 229, and keep taking away 7 - in this example it would be 222, 215, etc. If you can't manage counting backwards in 7's, try a different number.
- Try to visualise a map of a continent e.g. South America, Africa, Europe, and name each country within it.
- Imagine how you would decorate and furnish a new ideal home, or a house of a friend or family member. Go through room by room and imagine what furniture, decorations and colour scheme you would have.
- Think of a relaxing or calm place or an object such as a fruit, a plant, or an animal. Focus on the image and slowly try to imagine what you can see, hear, feel and maybe taste, in great detail. If your mind wanders off don't worry, just go back to where you were before.


## Retrain the brain to associate bed with sleep

One of the key aims to help with insomnia is to retrain the brain to associate bed with sleep. What can happen when people can't sleep is that they start trying to fill the time when they are lying in bed awake with behaviours that ultimately keep them awake, for example watching TV, using their phone, or trying to do some work. Furthermore lying awake and not sleeping often leads to anxiety and frustration which creates a vicious cycle of insomnia and anxiety. The brain then loses that connection between being in bed and being asleep. To help rebuild the connection between bed and sleep:

- Keep the bedroom just for sleep and sex. Avoiding other activities while in the bedroom is a good way to rebuild the connection so that when you are in bed it is more likely that you will fall asleep. If you are living somewhere where the bed and living space are combined, then just use the bed for sleeping and relationships, and take work, TV, meals and everything else into a different part of the room.
- Avoid being in bed when you are awake and can't sleep. This can be challenging, but is usually rewarding. This involves:
- If you regularly lie awake not being able to sleep for more than 30 minutes when you initially go to bed, you may be going to bed too early and setting yourself up for failure. This may leave you feeling frustrated and anxious. Instead, aim to go to bed 30 to 60 minutes later. For example, if you are regularly going to bed at 10pm, but not falling asleep until at least midnight, then try going to bed nearer the time that you would normally fall asleep i.e. between 11 pm and midnight.
- If you are lying awake for more than 20 to 30 minutes during the night, then get out of bed and go into a different room and do something relaxing that helps to settle your mind. Nothing too stimulating. Some people like reading, knitting, or doing a puzzle. Ideally avoid TV or screens. Avoid anything strenuous such as housework or exercise and avoid caffeinated drinks and smoking.
- When you are sleepy, try going back to bed and going to sleep. If you still can't sleep, or if you wake up again during the night and can't get back to sleep, then repeat the cycle. The idea is to take the anxiety that can build up when you are lying awake not being able to sleep out of the bedroom by getting out of bed and going into a different room. By doing something relaxing, you are allowing your mind to settle and making it easier for you to drift off to sleep once you are back in bed again.
- Estimate the 30-minute lying awake rule: avoid clock watching. Essentially if you feel you have been lying in bed for a while and not sleeping then get up.
- Prepare a space to go to during the night before you go to bed. Make sure it is warm, relaxing and comfortable.
- If your bed and living space are the same area, then get out of bed and move away into a different part of the room. Try to create separate areas of the space so that the brain can relearn to associate bed with sleep. If you are unable to leave the bedroom, still get out of bed and sit in a comfortable chair in a different part of the room and do something relaxing before getting back into bed when you are feeling sleepy.

Using this strategy sometimes means that you are in and out of bed a lot during the night, or spending several hours overnight out of bed and not sleeping. This can feel counterproductive but will help over time to improve the quality of sleep. If you have one bad night the chances are the following night might be a lot better.

However much or little time you have spent in bed overnight, the key is to keep to a regular wake time. This is because having a regular wake time acts as an anchor, helping to stabilise and regulate sleep and wake states. Your brain will then learn when to be awake and when to go to sleep.

Don't be too hard on yourself if you find this difficult. It can be challenging, but is often rewarding. Improvement will take time. You will have good nights and bad nights, often for no particular reason. The aim is for gradual improvement in sleep quality over time.

## Take-home messages:

1. Don't go to bed too early if you are regularly lying awake for a long time before going to sleep.
2. Use the 30 -minute rule: getting out of bed if you have been lying there for too long helps to prevent the build-up of anxiety and retrains the brain to associate bed with sleep.
3. Stick to a regular wake time no matter how bad the night has been.

## Sleep restriction

When people develop insomnia the amount of time they spend asleep in bed may be only a small amount of the total time they spend in bed because they may lie awake before going to sleep or for periods during the night. For example, you may only sleep for a total of four hours but spend a total of eight hours in bed. The proportion of the time spent asleep compared to the total time spent in bed is called sleep efficiency. If you spend all of the time in bed asleep, then sleep efficiency is $100 \%$. In the example above, if you only sleep for four out of a total of eight hours in bed, sleep efficiency is only $50 \%$. Good sleepers usually have on average $90 \%$ sleep efficiency.

With insomnia sleep efficiency is usually much less than $90 \%$ because the brain finds it difficult to switch off, and the connection between bed and sleep is weak. To improve sleep efficiency and retrain the brain to associate bed with sleep, one strategy is to reduce the time spent in bed. The idea is to increase the 'sleep drive' (i.e. make you feel really sleepy) so that when you do go to bed you are likely to sleep for a bigger proportion of the time you are in bed and therefore have greater sleep efficiency. It can also help 'reset' circadian rhythm. Once sleep efficiency is high, the time allowed in bed can be gradually increased and as your brain learns to associate bed with sleep, sleep quality improves.

Reducing the time allowed for sleep (or 'sleep window' time) can be hard. It can take time for things to improve, and is not for everyone. However it is a powerful technique that can lead to sustained improvement in sleep quality. Short term pain can lead to long term gain!

Sleep restriction is not something we offer in our clinics, but there are free services and support available if you are keen to try this. It is a technique that has the best chance of working if you are already practising the strategies described in this guidance pack, so persevere with these as well. Managing insomnia is a bit like doing a jigsaw - putting
all the pieces together are needed to reach the final goal.

## Conclusion

We hope that you have found this insomnia guidance helpful. Please let us know! Insomnia can be horrible to live with but sticking to the strategies mentioned in this leaflet can help.

Below are a couple of websites that also have useful information about how to manage insomnia.

## Useful websites:

Sleep station (www.sleepstation.org.uk). Developed by leading UK experts in sleep medicine, sleepstation is only funded by the NHS in certain areas, so patients may have to register and pay rather than being referred by their GP. On the sleepstation website patients can check if it is available on the NHS in their area.

Insomnia advice:

- https://patient.info/mental-health/ insomnia-poor-sleep). Practical advice for patients with links to other sleep related topics.
- 10 tips to beat insomnia (https://www. nhs.uk/live-well/sleep-and-tiredness/10-tips-to-beat-insomnia/)

Royal Papworth Hospital NHS Foundation Trust
Papworth Road
Cambridge Biomedical Campus
Cambridge
CB2 0AY
Tel: 01223638000
www.royalpapworth.nhs.uk
A member of Cambridge University Health Partners

| Author ID: | Dr Tim Quinnell |
| :--- | :--- |
| Department: | RSSC |
| Reprinted: | October 2021 |
| Review due: | October 2023 |
| Version: | 2 |
| Leaflet number: | PI 215 |

Large print copies and alternative language versions of this leaflet can be made available

