

# Listen & Learn.

Transcript of Podcast 733

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# Better British English Fluency- Sleep And Your Brain Health




About	Support
<p><i>Hilary P.</i> is a professional psychotherapist and has practised in the United Kingdom for over 24 years. Hilary has a keen interest in language learning, with a classical language educational background. Hilary's particular interests &amp; experience is in psychology, education &amp; learning, especially online learning and language acquisition.</p>	<p>For support files and downloads related to this text, please visit <a href="https://adeptenglish.com">adeptenglish.com</a>. At <a href="https://adeptenglish.com">adeptenglish.com</a>, you can also read a collection of free English <a href="#">lessons here</a> , sign up for a range of free newsletters and receive exclusive discounts and <a href="#">offers from Adept English</a>.</p>

# Who Knew Brainwashing Was Actually Good For You?

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Upgrade your English 提高 with Adept English! Get to work on your British English with our latest English [listening practice lesson](#) and discover a *secret* to brain health! 睡眠.

Lots of good reasons to join us in this lesson:

- 📖 Rich Vocabulary & Phrases
- 🗣️ Engaging Grammar & Conversation Drills
- 🎧 Advanced Listening Techniques
- 🌍 Immerse in British Culture
- 📺 Uncover Sleep's Role in Brain Detox
- 📄  Downloadable Podcast Transcript

✓ Lesson transcript: <https://adeptenglish.com/lessons/english-listening-practice-sleep-importance-brainwashing/>

Ever wondered how sleep can shield your brain from serious diseases? Discover the remarkable 'brainwashing' process in another really interesting English listening lesson.

Why should you use the Listen & [Learn](#) approach to learning English? Participating in this lesson, you'll enhance your English listening skills and expand your vocabulary, especially on topics that you will encounter in the real world of English conversations. You'll practice understanding English at a native speaker's pace, which will boost your English fluency.

Tune into [Adept English](#) every week and transform your English skills while unlocking the mysteries of sleep. 🎧 Listen on Spotify, YouTube, and AdeptEnglish.com.

## More About This Lesson

Today's English listening lesson talks about the amazing secrets of how sleep can clean your brain. Join us at Adept English and improve your British English [fluency](#) in the most effortless way possible.

In this lesson, we unveil how a good night's sleep is more than just rest. Here's what you'll gain:

1. Learn new vocabulary on sleep and brain health.
2. [Practice](#) listening to native English speech.
3. Discover the importance of sleep for brain function.
4. Understand complex topics explained in simple English.
5. Gain exposure to scientific English terms.
6. Hear real-life examples to aid comprehension.
7. Improve your ability to follow extended speech.
8. Access tips on enhancing your sleep quality.
9. Learn to distinguish between nouns, verbs, and adjectives.
10. Get motivated to repeat listening for deeper understanding.

- If you feel we have helped you please consider supporting us <https://adeptengli.sh/donate>

This lesson isn't just about learning English; it's about enriching your knowledge on sleep's profound impact on learning and brain health. Engage with us to:

- Connect language learning with intriguing real-world topics
- Make scientific concepts about sleep and brain health accessible and engaging
- Understand how improved sleep quality can enhance your English learning journey

Don't let this opportunity pass you by! Follow and subscribe to our [podcast](#) for more engaging [lessons](#) that make learning English both fun and informative. Embrace the journey of mastering English while discovering the secrets of sleep.

## FAQ

1. How does sleep improve English fluency? Sleep plays a crucial role in removing toxins from the brain, creating a healthier environment for learning and memory retention. By enhancing brain health through quality sleep, you can improve your ability to absorb and retain new information, including language skills. [Listening](#) to English podcasts, such as those from Adept English, before sleep can also reinforce learning through exposure and immersion. We know it's a tenuous link but there is a link!

2. Can listening to English [podcasts](#) like Adept English really help me [learn](#) the language? Yes! [Adept English's](#) approach is based on immersion and repeated listening. This method helps familiarize you with the sounds, rhythms, and structures of English, making it easier to understand and [speak](#) the language fluently. The more you listen, especially to topics that interest you like the science of sleep, the more natural your English [comprehension](#) and speech will become.
3. Where can I find transcripts for Adept English podcasts? You can find full transcripts for all Adept English podcasts on their website, [adeptenglish.com](#). Go to the [Lessons](#) section, select the podcast episode you're interested in, and scroll down to access the transcript. This feature allows you to follow along with the audio, review vocabulary, and reinforce your learning by seeing the [words](#) as you hear them.
4. What are the benefits of sleep for brain health mentioned in the transcript? The [transcript](#) discusses groundbreaking research revealing that sleep facilitates a 'brainwashing' process, where cerebrospinal fluid flushes out brain toxins. This nightly cleansing protects against neurodegenerative diseases and enhances cognitive functions such as learning, memory, and language acquisition. Good sleep hygiene thus directly contributes to both brain health and English language fluency.
5. How can I improve my sleep to boost my English learning? Following advice from Adept English podcasts, such as maintaining a regular sleep schedule, creating a restful environment, and avoiding screens before bedtime, can significantly improve your sleep quality. Engaging in relaxing pre-sleep routines, like listening to English podcasts, can also prepare your brain for restful sleep, enhancing its natural 'brainwashing' process and making language learning more effective.

Upgrade your mind's nightly journey, where sleep is a river that cleanses, carrying away the debris of the day, paving the way for the dawn of [fluent](#) English with Adept English.

### Most Unusual Words:

- Cerebrospinal: A clear liquid found around and inside the brain and spine.
- Debris: Pieces of waste or remains.
- Insomnia: When a person finds it hard to fall asleep or stay asleep.
- Neurodegeneration: When brain cells get damaged gradually over time.
- Neurons: Tiny cells in your brain that help you think, feel, and move.

- Podcast: A type of digital media, usually audio, that you can listen to online.
- REM sleep: A deep sleep stage where you dream and your brain is very active.
- Rhythm: A regular pattern of sounds, words, or actions.
- Transcript: The written version of what was said in a video or audio recording.
- Toxic: Poisonous or harmful to your body.

### Most Frequently Used Words:

Word	Count
That	18
Sleep	19
Brain	11
Through	9
Means	9
Which	8
Podcast	8
Brainwashing	7
English	7

### Listen To The Audio Lesson Now

## Transcript: Better British English Fluency-Sleep And Your Brain Health

### Brain Waves & Sleep: The Science of cleaning toxins from your brain

Hi there. Today let's look at the science behind how your brain washes away harmful toxins while you sleep. How well do you sleep? Do you get a blissful 8 hours every night and wake up refreshed? Or is your sleep something you pay little attention to and maybe you catch 5 or 6 hours? I've made plenty podcasts before on sleep. I'll run through the numbers and the topics in a minute. But today I'm looking at that fascinating 'brainwashing' mechanism which could save our brains from serious diseases. So 'sleep', S-L-E-E-P, that's what we do in bed at night and sleeping keeps our brains healthy. 'Sleep' is a noun, a verb and an adjective. So yes, this is an English language

podcast. But while you're learning and practising your English, let's be talking about something interesting, shall we? Don't forget to [listen](#) to this podcast a number of times and look up any vocabulary that you don't know. The idea is to work on this podcast until you understand all of it and you can listen to it just like a native English speaker would. That's a brilliant experience for your brain to have.

Hello, I'm Hilary, and you're listening to Adept English. We will help you to speak English fluently. All you have to do is [listen](#). So start listening now and find out how it works.

## **A couple of questions from our listeners**

Before I do any of that, just a couple of questions which you lovely Adept English listeners have asked us. Firstly, comments and feedback on Spotify. We discovered this week that your comments and feedback on [Spotify](#) were not being published! That means they weren't appearing, they weren't visible. Something changed, we're not sure what. But we're aware of it now and are publishing your comments again. So apologies for that. We love your feedback, we love your comments and it influences how we do the podcast. So please use Spotify to give us feedback. Now you'll be able to read it too.

And the other question? Well, a number of listeners have asked where they can get a [transcript](#) for the podcast. That's T-R-A-N-S-C-R-I-P-T and it means 'the written words'. Obviously, if you listen on [YouTube](#) or Spotify, you do get the words scrolling on the screen. But if you want a full transcript, that is available on our website, [adeptenglish.com](http://adeptenglish.com). If you go to Lessons, click on the podcast you're interested in and page down, you will find the transcript there. You can even [download](#) a [PDF](#) of the transcript. Just go to the section on the page which says, "Solve the maths problem to download the podcast and transcript." You just need to do the easy maths to prove you're a human being and then you can download the PDF. Hope those last two points are helpful and answer your questions.

## **Previous 'sleep' podcasts**

So first of all, previous podcasts where I've talked about sleep. If you're someone who has difficulty calming your mind, difficulty stopping thinking so you can go to sleep, [podcast 469 might be helpful](#) for you. In that podcast, I talk about which part of the brain may sometimes be preventing people from going to sleep and the importance of REM sleep. And [in podcast 627](#), I run



through the advice on how to get a good night's sleep. Some useful ideas on improving sleep for you.

## **Brainwashing: Government tactic or nightly brain care?**

Today though, some interesting new [research on that discovery of 'brainwashing'](#). In English, we use the term 'to brainwash'. That's B-R-A-I-N. That's the thing in here. W-A-S-H. Brainwash. Meaning 'to make someone believe something by repeatedly telling them that it's true and by preventing other information from reaching them'. That's 'brainwashing'. Sounds a bit like the term 'gaslighting' but that's more in relationships. 'Brainwashing' is more what governments do to us.

But the type of 'brainwashing' that I'm talking about here is something that was only discovered in 2019. A study published in the journal Science, 31st October 2019, the link's in the transcript. This was a Boston University sleep study. And what scientists discovered in 2019 was that as a normal part of sleep, the blood, B-L-O-O-D, leaves the brain. And instead, the brain is flushed through with a substance rather like water. To flush, F-L-U-S-H, that's what you do with your toilet. And if we talk about 'flushing' something, it usually means 'causing water to flow through with the purpose of cleaning or washing'. So scientists [discovered that during sleep](#), blood leaves our brains and instead liquid fluid called 'cerebrospinal fluid' flushes through the brain, removing substances that are toxic to the brain. Lots of vocabulary here. 'Cerebrospinal', that's C-E-R-E-B-R-O, and that just means 'of the brain'. And 'spinal', S-P-I-N-A-L, means 'of the spine'. So there is fluid around our brain, liquid if you like. And it also flows through our 'spine', S-P-I-N-E. That's the area around our backbone. So we all have this 'cerebrospinal' fluid in our brain. And when we sleep, this liquid flushes through the brain. So that was the remarkable new discovery back in 2019. And scientists learned then how toxins, particularly proteins, are removed during sleep. That means diseases like dementia, Alzheimer's, Parkinson's, all of which are on the rise, appear to be caused in part by a build-up of proteins in the brain. So in 2019, scientists were excited to discover this mechanism and a process which is intended to protect us against those diseases. Worth studying then.

## **Neurons in our brain - like mini pumps?**

So the more recent research published in February this year, well, it was published in the [journal Nature, 28th of February, 2024](#). And the research was looking at the mechanisms in the brain that do this 'flushing', this



cleaning if you like. It turns out that there is a process going on every night while we sleep where our neurons, that's N-E-U-R-O-N-S, the nerves in our brain, work together to create a rhythm like a drum beat. And this pushes the liquid through our brain. 'Rhythm' is one of the few words in English that doesn't have a vowel. R-H-Y-T-H-M. 'Rhythm'. A 'rhythm' is a beat, an on-off, a pattern if you like. And here, our neurons all work in sync. S-Y-N-C. They all work together to force this fluid through our brain. Almost like they're all dancing to the same music. They work as a 'pump', that's P-U-M-P, that's a noun and a verb. And a 'pump' is a device that we would use to move water around. So a 'pump' is a machine that's used to move liquid, usually water in a particular direction. So scientists here were looking at the mechanism by which the cerebrospinal fluid is 'pumped' around the brain to clean it.

## Can sleep protect against brain diseases?

One author on the recent study, Li-Feng Jiang-Xie, Postdoctoral Research Assistant, that's someone with a PhD, in the Department of Pathology and Immunology, at the Washington University of Medicine said, and this is the bit where you get to practise slightly more difficult English. This is what Dr Jiang-Xie said, "These neurons are miniature pumps, synchronised neural activity, powers fluid flow, and removal of debris from the brain". 'Debris', D-E-B-R-I-S, means 'rubbish'. "If we can build on this process, there is the possibility of delaying or even preventing neurological diseases, including Alzheimer's and Parkinson's, where excess waste accumulates in the brain and leads to neurodegeneration." 'Neurodegeneration' just means the brain doesn't work as well, it gradually deteriorates.

## Can enhancing brain cleaning reduce sleep needs?

Another person on the study, Professor Jonathan Kipnis said, "We knew that sleep is a time when the brain initiates a cleaning process, to flush out waste and toxins, but we didn't know how that happened. These findings may be able to point us towards strategies and potential therapies to speed up the removal of damaging waste and to remove it before it can lead to dire consequences." Here, 'dire consequences' means the diseases like Parkinson's and Alzheimer's, diseases none of us want to get.

So what they're saying is that by gaining a greater understanding of how our brains flush out the toxins every night during sleep, we may be able to develop treatments that protect us against these diseases. That would be great, wouldn't it? And during this study, the researchers also proved the

theory of how the 'brainwashing' happens. They prevented the neurons in certain parts of the brain from firing according to the rhythm. They weren't allowed 'to dance to the beat', in other words. And they then observed that the 'brainwashing' didn't take place in these areas where the neurons were prevented from firing.

The study was done on mice, that's M-I-C-E, and the singular is 'mouse', M-O-U-S-E. Mice, along with rats, are those unfortunate creatures that seem to find themselves in the middle of a scientific experiment. Professor Jonathan Kipnis also observed that mice don't sleep very long, but that their 'brainwashing' seems to be very efficient, meaning 'it happens quickly'. Professor Kipnis said, "If we can enhance this cleaning process, perhaps it'll be possible to sleep less and remain healthy. Not everyone has the benefit of eight hours sleep a night, and loss of sleep has an impact on health." So, effectively, does this mean that people with insomnia could be helped? 'Insomnia' - I-N-S-O-M-N-I-A - that's when you don't get enough sleep, when you have trouble sleeping, that's 'insomnia'.

## **Brainwashing happens in the non-REM sleep**

There are more questions than answers, perhaps, here. But if you're someone who uses a sleep monitor, like I do, a device on your arm which feeds back on how well you slept, this 'brainwashing' occurs during non-REM sleep, when the brain is at its quietest.

Good to know that scientists are making progress on understanding these horrible diseases and how they come about. And in the meantime, it underlines just how important sleep is. Hopefully, this podcast is 'food for thought' for you. Don't forget to listen a number of times and treat it like an English lesson. Enough for now.

## **Goodbye**

Have a lovely day. [Speak](#) to you again soon. Goodbye.

Thank you so much for listening. Please help me tell others about this podcast by reviewing or rating it. And, please share it on social media. You can find more listening lessons and a [free English course at adeptenglish.com](#)

## **Links**

- [Lesson 469](#)

- [Lesson 627](#)
- [Brain Washed during Sleep?](#)
- [Nature](#)
- [The Brain While You Sleep](#)
- [Neurons help flush waste out of brain](#)
- [Sleep Clears Toxins](#)
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