



The 2022 Annual Global

SLEEP & SNORING

Report

RHINOMED

mu:te
BREATHE MORE
SNORE LESS

INDEPENDENT RESEARCH CONDUCTED BY ONE POLL IN ASSOCIATION WITH RHINOMED.

Methodology

This independent research was completed by OnePoll.com, which surveyed a nationally representative sample of 2,000 adults in each of three countries: Australia, United Kingdom and United States.

Research was conducted online in Australia between 3.2.22 and 14.2.22, UK between 14.2.22 and 17.2.22 and in the US between 3.2.22 and 10.2.22.

This report also includes additional research by One Poll and The Harris Poll. See page 25 for detailed references.



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Foreword

Michael Johnson CEO, Rhinomed

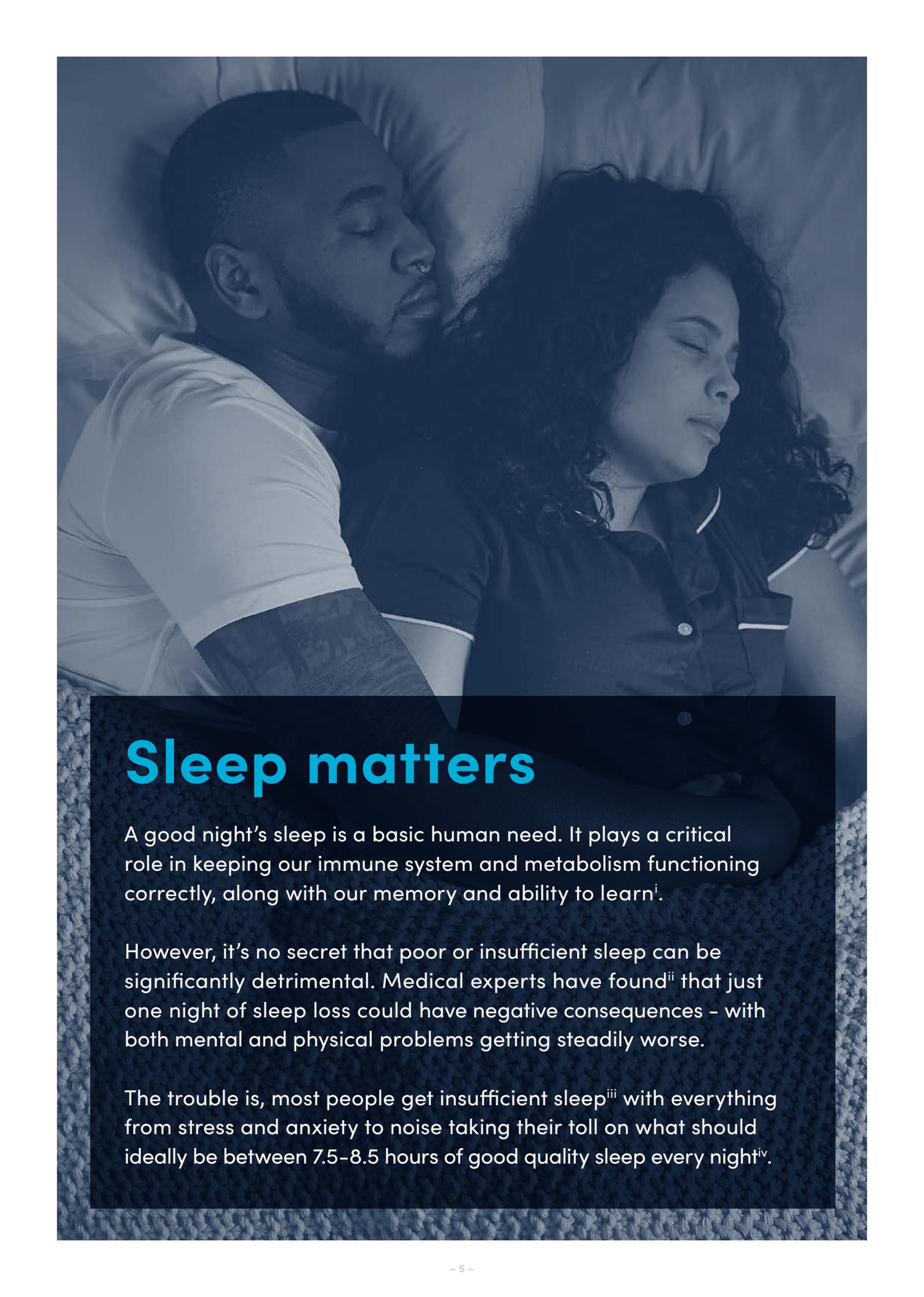
I used to snore. Indeed my snoring was, according to those I live with, prodigious. It was wrecking my sleep, making me grumpy, and worse, destroying their sleep and having a significant impact on their quality of life. My snoring was one of the key things that drove me to join Rhinomed and go on to develop our snoring and sleep technology. So, thankfully, as a trusted on Mute user, I now no longer snore.

Back then I knew I was not alone in being a snorer, but what the 2022 Annual Global Snoring and Sleep Report highlights is just how common and universal snoring and poor sleep are. The 2022 Annual Global Snoring and Sleep Report is our largest consumer study to date. The report is a global snapshot conducted independently across three key markets – Australia, UK and US. It shows us empirically what we all have known anecdotally – that around the world we're having problems with sleeping, and the biggest reason for that is snoring. The results speak for themselves.

Consumer snoring habits are impacting our relationships, our personal lives and our working lives at an alarming level.

The findings show that snoring, which in turn leads to sleep deprivation, is having a widespread physiological and psychological impact. How much of this has been exacerbated by the global pandemic we will have to wait and see, however, there is no doubt that the erosive nature of snoring is placing an additional and substantial burden on individuals, their bed partners and their families at a time when they need it least.

We hope you find the research thought provoking, useful and an important reminder to be more aware of the impact of snoring and poor sleep. We also hope it can be used as an inspiration to develop solutions that we all want and need. We look forward to working with you to help us all move one step closer to a happier and healthier night's sleep.



Sleep matters

A good night's sleep is a basic human need. It plays a critical role in keeping our immune system and metabolism functioning correctly, along with our memory and ability to learnⁱ.

However, it's no secret that poor or insufficient sleep can be significantly detrimental. Medical experts have foundⁱⁱ that just one night of sleep loss could have negative consequences - with both mental and physical problems getting steadily worse.

The trouble is, most people get insufficient sleepⁱⁱⁱ with everything from stress and anxiety to noise taking their toll on what should ideally be between 7.5-8.5 hours of good quality sleep every night^{iv}.

*Average hours of
sleep per night*



Sleep: How much is enough?

The Rhinomed Mute/One Poll study of 6,000 adults in three countries – Australia, the United Kingdom and the United States – found that an average night’s sleep in each country is 6.2 hours (Australia), 6.4 hours (UK) and just 5.8 hours in the US.

Who sleeps for the recommended 7.5–8.5 hours?

- **42% Australia**
- **47% UK**
- **32% US**

58% of American survey respondents said a typical night’s sleep was between four and six hours, compared to 51% in Australia and 48% in the UK.

Bedtimes and waking up times across each country are broadly similar, but there are some marked differences hidden in the numbers. For instance, people in Australia and the US tend to go to bed and get up earlier than those in the UK.

Nearly 20% of people in Australia and the US turn in at between 9-10pm (17% and 19% respectively); just 14% of those in the UK have such an early night.

Conversely, 36% of Americans get up before 6am, compared to 26% of Australians and just 15% of people in the UK.

Quality counts

Our survey found that not only are people not getting a healthy amount of sleep, they're also not happy with the quality of their sleep.



Not happy with sleep quality

36% of the total 6,000 respondents reported being not very happy or not at all happy with the quality of their sleep.

This is particularly relevant because when asked what they considered most important to them, getting good quality sleep every night ranked highly in each country, only behind being healthy and being in a loving relationship.

Did you know...

96% of people believe good quality sleep is very or somewhat important to their overall wellbeing.^v

	Being Healthy	In a loving relationship	Quality sleep every night	A nice home	A well-paid job
Australia	64%	44%	43%	20%	19%
UK	57%	42%	35%	30%	15%
US	61%	41%	38%	20%	22%

Sleep or be damned

Lost sleep can have far greater consequences than a slow start to the morning.

Of the 2,570 people across all three countries who said their snoring or their partner's snoring had left them so tired it affected their everyday life, 34% said their day-to-day life was impacted a few times a week as a result^{vi}.

The reported effects were wide-ranging^{vii}:

- Becoming snappy or argumentative with other people (47%)
- Trouble concentrating (40%)
- Forgetting important things (23%)
- Taking a nap at work (20%)



15% of adults who experience lost sleep report waking up with muscle pain.^{viii}

Snoring: A social issue

Snoring is affecting our sleep

The study highlights that significant numbers of people are experiencing disturbed sleep as a direct result of snoring in an average week.



40%

of people across the three countries reported disturbed sleep on between two to four nights each week^{ix}.

The average number of disturbed night's sleep per week:

2.9

Australia

2.5

UK

2.7

US

The average number of hours of lost sleep on each of these nights is 1.2 (Australia), 1 (UK) and 1.2 (US), but there are still worrying numbers of people suffering far more.

In each country, more than a quarter of respondents reported snoring disturbed their sleep anywhere between 1.5 and 2.5 hours during each broken night's sleep^x.

29%

Australia

22%

UK

29%

US

Whose problem?

51%

of all study respondents in Australia, the United Kingdom and the United States, admit to snoring^{xi}, with just the slightest variation between the three countries taking part. But the snoring doesn't stop there: 50% of survey respondents in all three countries also accuse their partner/spouse of snoring^{xii}.

FACT:

Snoring is made by the vibrations of the soft palate and other tissues in the mouth, nose and throat, and is generally caused by a partial blockage of the upper airway. It tends to be more common in men than women and people with weight problems.

Snoring shame

Aside from the detrimental physical effects of snoring, research shows it also has a major psychological impact.

An earlier study^{xiii} in Australia and the UK found that 52% and 46% of people in each country respectively felt embarrassed by it.

Nearly 40% of Australians and 30% of Brits^{xiv} have had someone complain they could hear them snoring through the walls, and an embarrassed 33% and 22% respectively have even had their snoring recorded by a friend or partner.

It also revealed that 18% of Australians and 10% of Brits would avoid spending the night with a new partner because of their snoring. 14% said snoring impacts their confidence, while 8% reported it was affecting their mental health.

“

I would lie about my snoring on a dating app.

36%^{xv}

“

I've changed my social or business plans because of my snoring.

24%^{xvi}

Ultimate annoyances

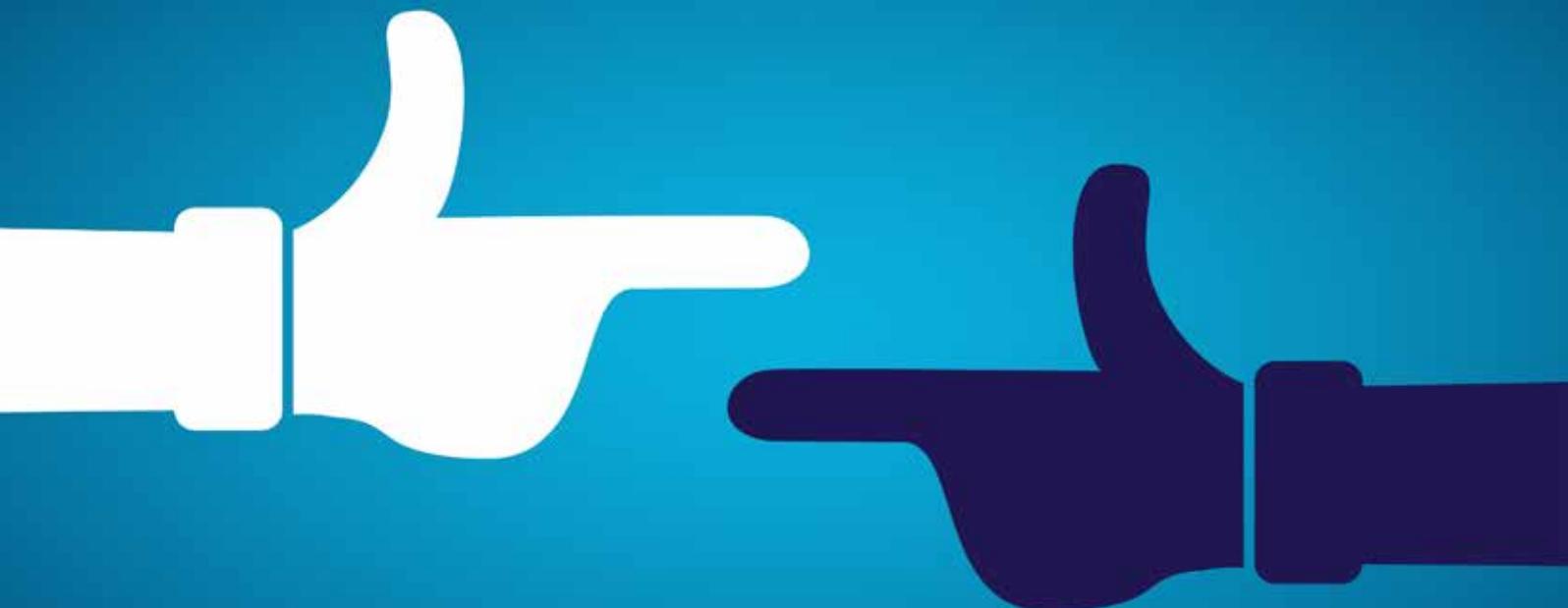
52% of adults admit their relationship has suffered as a result of snoring; **17%** say snoring has actually ended a relationship.

Snoring is one of the most annoying things that a partner/spouse could ever do according to 25% of all survey respondents^{xvii}.

Australians and Brits put it top of their list of most annoying things - 27% and 25% respectively, while 21% of Americans said snoring is second only to saying something is fine when it's really not (22%).

Talking during a favorite TV show, leaving crumbs after making a sandwich/toast and not emptying/filling the dishwasher were other top gripes.

35%
of people surveyed
in all three
countries also
accused someone
in their house,
other than their
partner/spouse,
of snoring^{xviii}.



Tired and emotional

This year's study isn't the first time people have cited snoring as a cause of lost sleep. A previous independent study^{xi} found that 29% of people experienced sleeping difficulties with key factors including my partner's snoring [23%]. 15% said their own snoring impacted getting to sleep.

Other causes of sleeping difficulties were stress, anxiety, a racing mind, being too hot or cold, allergies and chronic pain. Broken sleep and snoring are certainly taking their toll as well. Of our 6,000 respondents across three countries, 30% cite snoring as the most annoying noise when trying to sleep, 22% said snoring could have a hugely negative effect on a relationship, and 34% wished for more sleep.

Snoring even causes frequent arguments between couples/families and housemates. 22% of Australians, 29% of Brits and 20% of Americans argue about snoring three or more times per month.



Think snoring can have a huge negative impact on relationships.



FACT: A typical adult loses more than 501 hours of sleep a year – nearly 63 full, eight-hour long nights – because of noise.^{xx}

FACT: 52% of adults admit their relationship has suffered as a result of snoring; 17% say snoring has actually ended a relationship.^{xxi}

A photograph of a man and a woman in bed. The woman on the left is looking towards the camera with a frustrated expression, holding two pillows up to her ears to block out noise. The man on the right is sleeping peacefully with his mouth open, snoring. The scene is dimly lit, suggesting a bedroom at night.

Turn down the volume

Of the 3,058 adults in all three countries who admitted to snoring, more than a fifth (**21%**) said their snoring sounded like a growl, closely followed by a roar in Australia and the UK and a saw in the US^{xxii}.

People who accused their partners or spouses of snoring said they also sounded like they were growling (**26%**), roaring or a saw^{xxiii}.

However, people are all too eager to point their finger at someone else for noisy snoring.

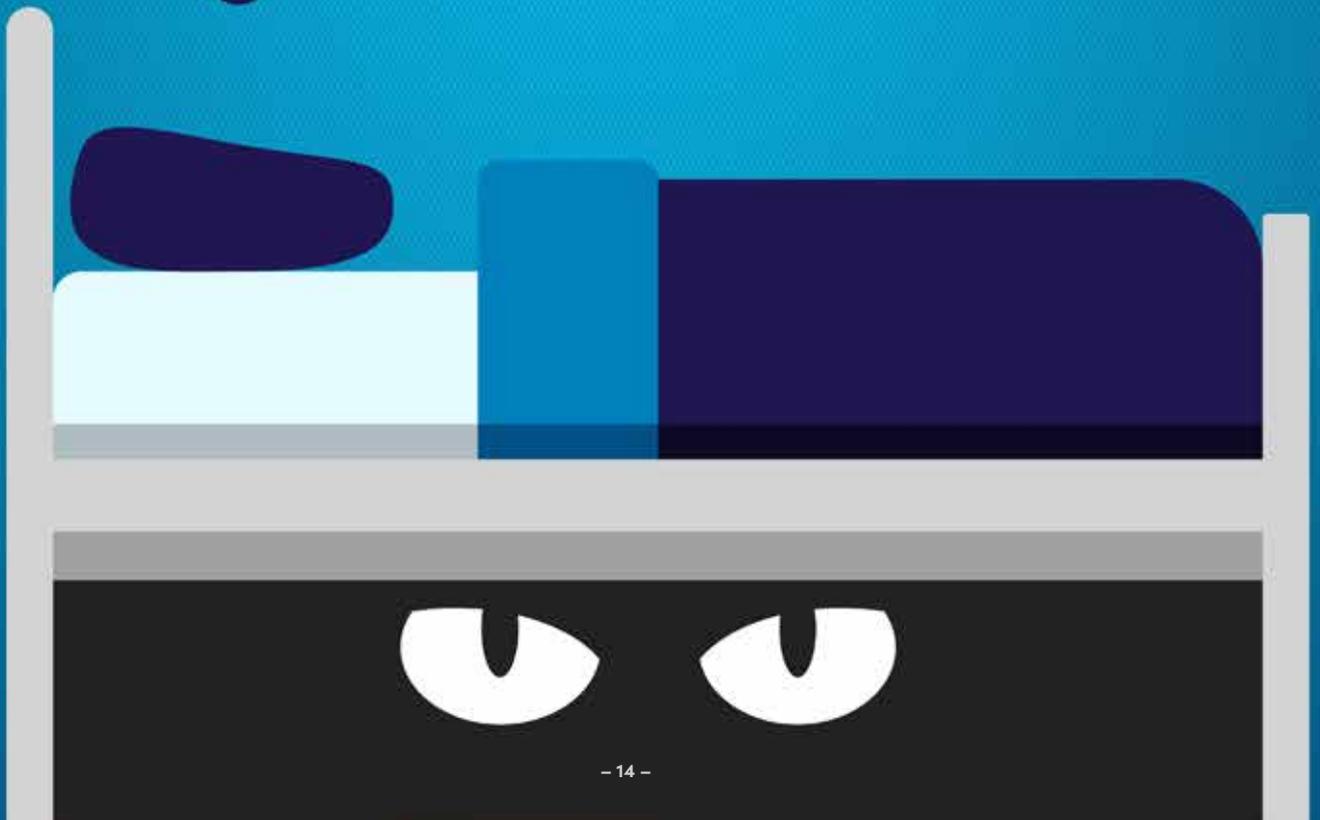
When asked whose snoring was worse, of the people who responded across the three countries, nearly half (**44%**) blamed their partner or spouse, while more than a third (**35%**) admitted it was them.

Is that a monster under the bed?

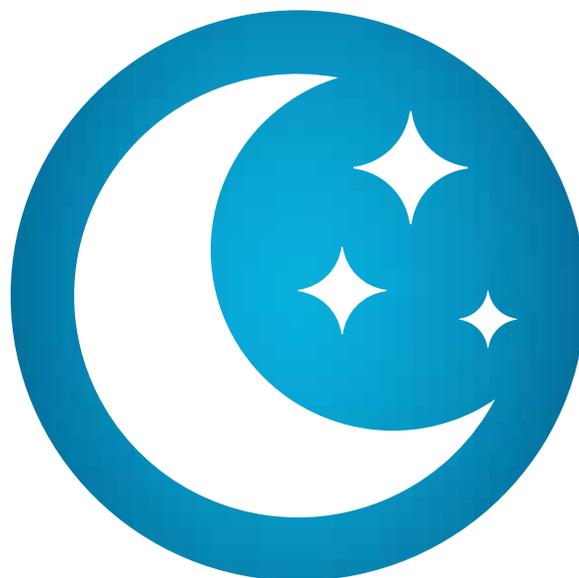
4

most common sounds used to describe snoring

- ▣ A growl
- ▣ A roar
- ▣ Thunder
- ▣ Darth Vader



Night moves



So, what are people doing to ensure they get the shut-eye they need?

Three quarters of US adults have taken some measure to improve their sleep^{xxiv} with top choices including:

- **31%** melatonin supplements
- **23%** blackout curtains
- **22%** talking to their doctor

Some also tried eye masks or headphones, weighted or heated blankets, meditation or sleep tracking apps.

31% of self-confessed snorers reported that they or their partners or spouses had taken direct action to stop or get away from the noise^{xxv}.

The top three methods are:

	My partner/spouse has kicked, nudged or elbowed me	My partner/spouse has woken me up	I/my partner/spouse has slept in another room
Australia	37%	33%	20%
UK	37%	32%	21%
US	32%	37%	18%

Some snorers' partners have also resorted to using noise-canceling ear plugs, making recordings or videos to prove how bad the snoring is and even shouting.

People living with snorers have taken similar action.

	Kicked/nudged/elbowed them	Woken them up	Slept in another room
Australia	43%	30%	25%
UK	51%	33%	25%
US	39%	31%	23%

Most popular strategic moves against snorers:

A graphic featuring the word "NUDGE" in bold white capital letters. The text is centered within a dark blue, starburst-shaped background with a halftone dot pattern. Several white stars of varying sizes are scattered around the starburst.

NUDGE

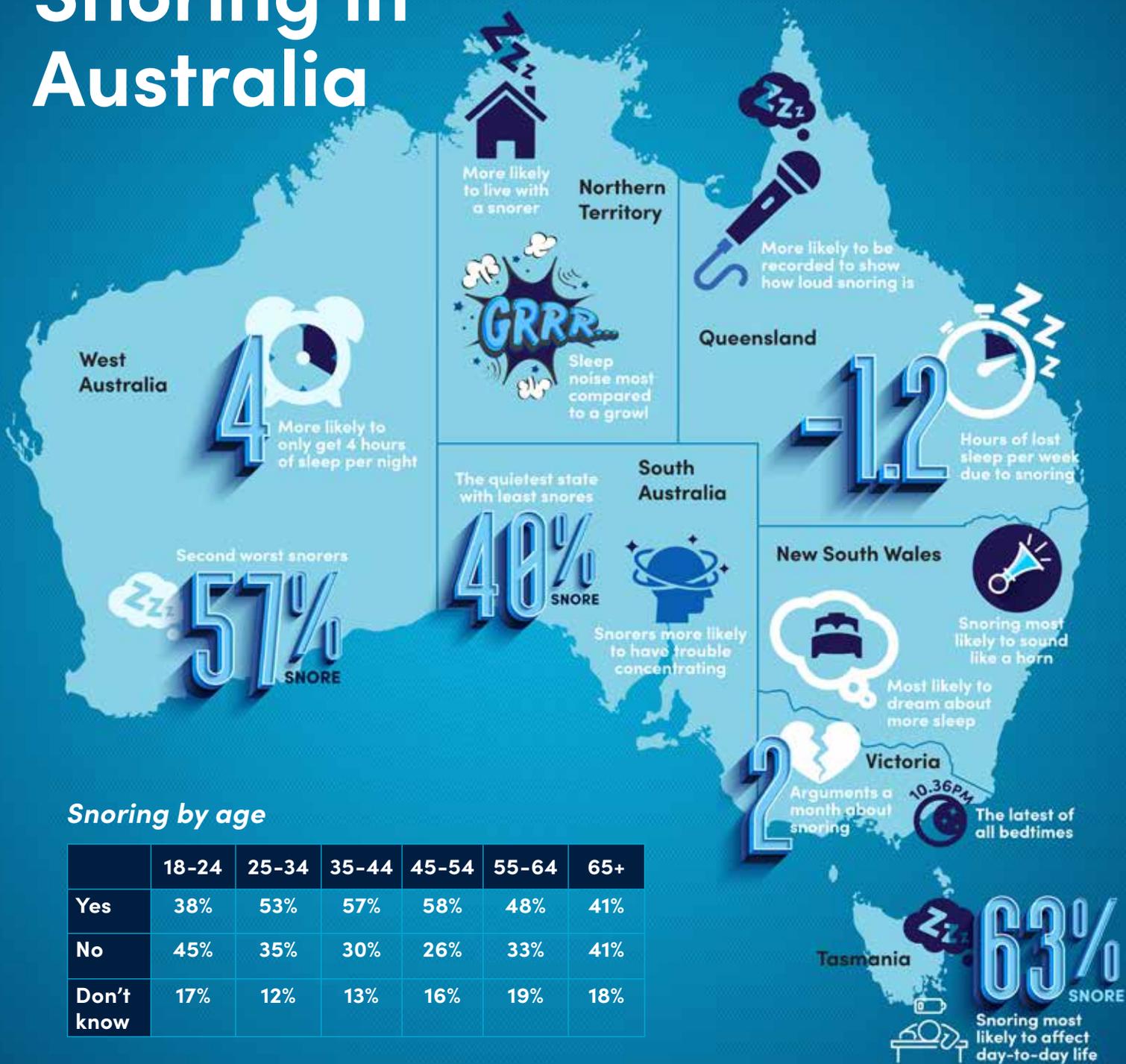
A graphic featuring the word "KICK" in bold white capital letters. The text is centered within a dark blue, starburst-shaped background with a halftone dot pattern. Four white, cloud-like explosion shapes with pointed tails are positioned around the starburst.

KICK

A graphic featuring the word "ELBOW" in bold white capital letters. The text is centered within a dark blue, cloud-like background with a halftone dot pattern. Two white lightning bolts are positioned around the background.

ELBOW

Snoring in Australia



Snoring by age

	18-24	25-34	35-44	45-54	55-64	65+
Yes	38%	53%	57%	58%	48%	41%
No	45%	35%	30%	26%	33%	41%
Don't know	17%	12%	13%	16%	19%	18%

- 49% of Australians admit to snoring
- 51% accuse their partner or spouse of snoring
- 33% say someone else other than their partner snores in their household

The majority of snorers are men – 56% compared to 43% who are women. Age is also a factor with snoring appearing to peak in middle age.

Do you snore?

By region



Tasmania is the home of the biggest number of self-confessed Australian snorers, closely followed by Western Australia.

	Australia Capital Territory	New South Wales	Northern Territory	Queensland	South Australia	Tasmania	Victoria	Western Australia
Yes	51%	48%	43%	50%	40%	63%	49%	57%
No	37%	36%	43%	36%	39%	23%	35%	26%
Don't know	11%	16%	14%	14%	21%	14%	16%	17%

However, it's in the Australian Capital Territory where people lose the most sleep. 51% report disturbed sleep on between two and four nights as a direct result of their own or someone else's snoring, compared to:

New South Wales: **44%**

Northern Territory: **10%**

Queensland: **40%**

South Australia: **32%**

Tasmania: **41%**

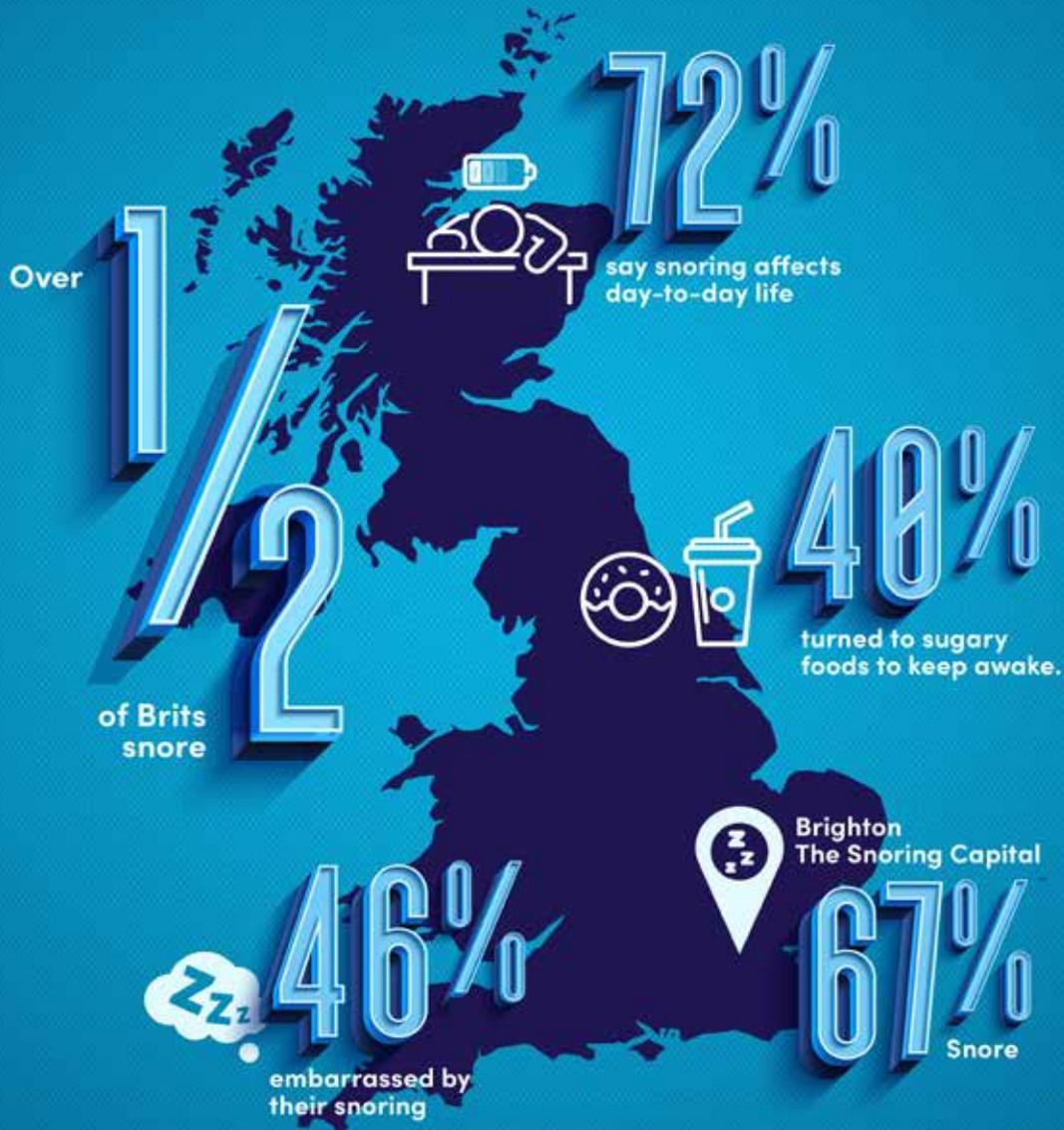
Western Australia: **38%**



"The stress hormone cortisol can increase by 37% after just one night of insufficient sleep, leaving you feeling anxious, wired and unable to switch off. In addition, beta amyloid, a neurotoxin that contributes to brain fog, memory loss and even Alzheimer's disease, increases by 5% after 2 nights of inadequate sleep. And, of course, fatigue - which single-handedly contributes to 20% of motor vehicle accidents."

Olivia Arezzolo, Australia's #1 sleep specialist

Snoring in the UK



- **53%** admit to snoring themselves
- **52%** accuse their partner/spouse of snoring
- **35%** say someone other than their partner/spouse snores in their household

British male snorers outnumber women by a significant margin - **59%** compared to **46%** of women.

Interestingly, when it comes to the ages of UK snorers, unlike in Australia, significant numbers of younger Brits confess to snoring.



Do you snore?

Snoring by age

	18-24	25-34	34-44	45-54	55-64	65+
Yes	53%	45%	47%	50%	64%	57%
No	36%	42%	42%	35%	21%	21%
Don't know	12%	13%	11%	15%	15%	23%

When it comes to UK snorers by region, Northern Ireland and Wales have the biggest number of self-confessed snorers.

By region

	Yes	No	Don't Know
East Anglia	58%	23%	19%
East Midlands	52%	33%	15%
London	50%	40%	10%
North East	57%	24%	19%
North West	49%	39%	12%
Northern Ireland	61%	27%	13%
Scotland	54%	34%	12%
South East	54%	27%	19%
South West	43%	28%	19%
Wales	60%	27%	13%
West Midlands	48%	34%	18%
Yorkshire & the Humber	48%	33%	19%



And it's in Northern Ireland where snoring is having the biggest impact on sleep, with **68%** of people reporting their sleep being disturbed between two and four nights a week – significantly ahead of other regions:

- London **51%**
- North West **47%**
- South West **45%**
- Scotland **44%**
- South East **42%**
- East Anglia **41%**
- West Midlands **40%**
- North East **40%**
- Yorkshire & the Humber **39%**
- Wales **36%**
- East Midlands **36%**



“Getting enough sleep is important for both mental and physical health, so finding ways to ensure we get the best we can is vital.

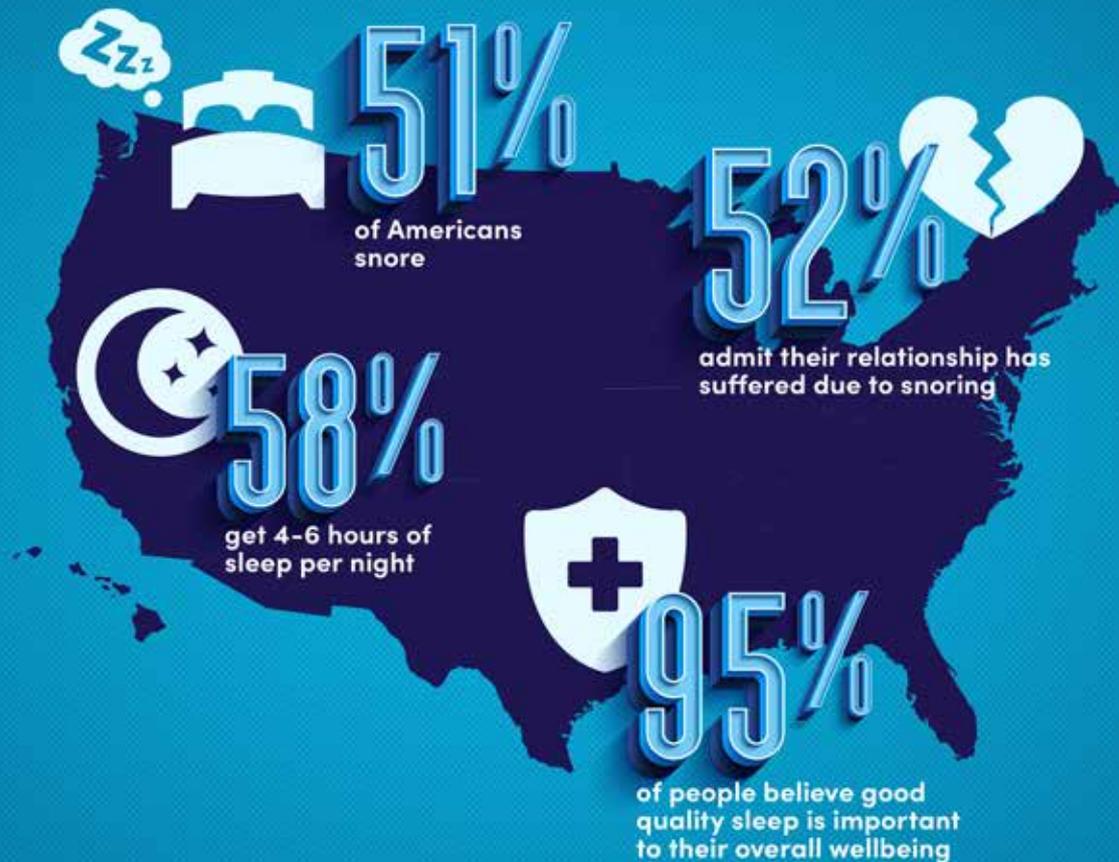
If we don't get enough sleep, this can not only affect our mood or energy levels, of course, but our physical health as well. Lack of sleep can be associated with diabetes, high blood pressure and heart disease.

Although there are many reasons why someone may snore, finding the right solution will often involve freeing up the airways.

Reducing snoring ultimately improves sleep, which in turn improves overall well-being.”

Dr Ellie Cannon, GP, author, broadcaster

Snoring in the US



- **51%** admit to snoring themselves
- **45%** accuse their partner/spouse of snoring
- **36%** say someone other than their partner/spouse snores in their household

Men outnumber women when it comes to snoring – **57%** compared to **46%** of women.

In America, there appears to be a direct correlation between age and snoring – increasing with age but peaking at 45-54 years old before dropping again.

Snoring by age

	18-24	25-34	34-44	45-54	55-64	65+
Yes	41%	52%	56%	59%	54%	43%
No	38%	35%	35%	28%	27%	32%
Don't know	21%	14%	9%	13%	18%	25%

Do you snore?



By region

When it comes to US snorers by region, states in the Northeast claimed the largest number of self-confessed snorers.

	Yes	No	Don't Know
Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin	52%	29%	19%
Northeast: Connecticut, Delaware, Maine, Massachusetts, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Washington D.C.	53%	32%	15%
South: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, Arkansas, Arizona, Louisiana, New Mexico, Oklahoma, Texas	51%	36%	14%
West: Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming	47%	36%	17%

It's also the Northeast where people are most impacted by their or someone else's snoring, with **40%** claiming that in an average week their sleep is affected on between two and four nights, closely followed by the South (**39%**), West (**37%**) and Midwest (**35%**).



"Sleep is critically important for both mental and physical health. While snoring might seem like a light-hearted and funny thing, it can have a huge impact on the quality and length of people's sleep.

If you are the one being kept awake by the snoring, it can be infuriating and leave you struggling the next day thanks to the time spent lying there trying to nod off. But it can also mean that the person snoring is not getting the best quality sleep either - whether that's from waking themselves up or from having their partner nudge them in the night."

The Sleep Doctor, Dr. Michael J. Breus

R H I N O M E D

Rhinomed is an airway technology company that seeks to radically improve the way you breathe, sleep, maintain your health and take medication. Rhinomed's patented nasal technology leverages the physiology of the nose to optimise our breathing which is essential to restful sleep and to maintaining good health.

Rhinomed's vision for the future is to enable medications to be administered through the nose with the aim of improving the efficiency and effectiveness of the therapies, while seeking a reduction in side effects for patients. Rhinomed continues to invest in furthering our knowledge of the role the nose, the upper airways and the olfactory system plays in maintaining health and wellness.

Rhinomed's technology platform is protected by a family of over 60 patents globally. Rhinomed is listed on the Australian Stock Exchange (ASX: RNO) and headquartered in Melbourne, Australia.

mu:te

Mute is a nasal dilator that sits comfortably inside the nose, increasing airflow, improving breathing and reducing snoring. The winner of a 2021 Health Sleep Award, Mute improved breathing for 78% of users in a product trial and reduced snoring for 75% of users^{xxvi}. Mute is available in three sizes and can be adjusted to each nostril so it fits noses of virtually any size or shape. Mute is available online at www.mutesnoring.com.

CONTACT

Lyndsey Gordon, Australia: lyndsey@eyep.com.au, +61 (0) 407.609.296

Kerry Milliken, UK: kerry@eyep.com.uk, +44 (0) 7799 714006

Patty Gibbs, US: patty@pattygibbscompany.com, +1 651.269.7687

Notations

- ⁱ <https://healthysleep.med.harvard.edu/healthy/matters/consequences>
- ⁱⁱ <https://www.usf.edu/news/2021/drama-llama-or-sleep-deprived-new-study-uncovers-sleep-loss-impacts-mental-and-physical-well-being.aspx>
- ⁱⁱⁱ <https://healthysleep.med.harvard.edu/healthy/matters/consequences>
- ^{iv} <https://healthysleep.med.harvard.edu/need-sleep/what-can-you-do/assess-needs>
- ^v The Harris Poll Study, completed with 2,050 US adults April 14–April 16, 2021
- ^{vi} One Poll Study completed February 2022 in Australia/UK/USA. Question: *Has your or your partner/spouse's snoring, or someone else's snoring in your home, ever left you so tired it has affected your day-to-day life?*
- ^{vii} One Poll Study completed February 2022 in Australia/UK/USA. Question: *If yes, how has it impacted your day-to-day life? [Tick all that apply]*
- ^{viii} One Poll Lost Sleep Study completed 7/10/21– 8/7/21 2,000 adults
- ^{ix} One Poll Study completed February 2022 in Australia/UK/USA. Question: *During an average week, on how many nights is your sleep affected due to you, or someone else's snoring?*
- ^x One Poll Study completed February 2022 in Australia/UK/USA. Question: *On each occasion of lost sleep, how many hours of sleep do you estimate you lose?*
- ^{xi} One Poll Study completed February 2022 in Australia/UK/USA. Question: *Do you snore?*
- ^{xii} One Poll Study completed February 2022 in Australia/UK/USA. Question: *Does your partner snore?*
- ^{xiii} One Poll Embarrassed Snorers study with 2000 adults in the UK and Australia respectively completed 2/07/2021 – 5/7/2021
- ^{xiv} One Poll Embarrassed Snorers study with 2000 UK adults completed 2/07/2021 – 5/7/2021
- ^{xv} The Harris Poll completed with 2,050 US adults April 14–April 16, 2021: *Among those who snore and are not married/living with a partner*
- ^{xvi} The Harris Poll completed with 2,050 US adults April 14–April 16, 2021: *Among those who snore*
- ^{xvii} One Poll Study completed February 2022 in Australia/UK/USA. Question: *What does your partner ever do that annoys you (Tick all that apply)?*
- ^{xviii} One Poll Study completed February 2022 in Australia/UK/USA. Question: *Do you live with someone who snores?*
- ^{xix} The Harris Poll completed with 2,050 US adults April 14–April 16, 2021
- ^{xx} One Poll Lost Sleep Study completed 7/10/21– 8/7/21 2,000 adults
- ^{xxi} One Poll Lost Sleep Study completed 7/10/21– 8/7/21 2,000 UK adults
- ^{xxii} One Poll Study completed February 2022 in Australia/UK/USA. Question: *If you snore, what have you been told, or what do you think your snoring sounds like?*
- ^{xxiii} One Poll Study completed February 2022 in Australia/UK/USA. Question: *If your partner/spouse snores, what do you think their sounds like?*
- ^{xxiv} The Harris Poll completed with 2,050 US adults April 14–April 16, 2021
- ^{xxv} One Poll Study completed February 2022 in Australia/UK/USA. Question: *If your partner/spouse snores, what have you done as a result [tick all that apply]*
- ^{xxvi} 2014 User Trial, n=118 couples. Results may vary.