

# Calmer, easier days and more restful nights

For Care Home residents, and those who care for them



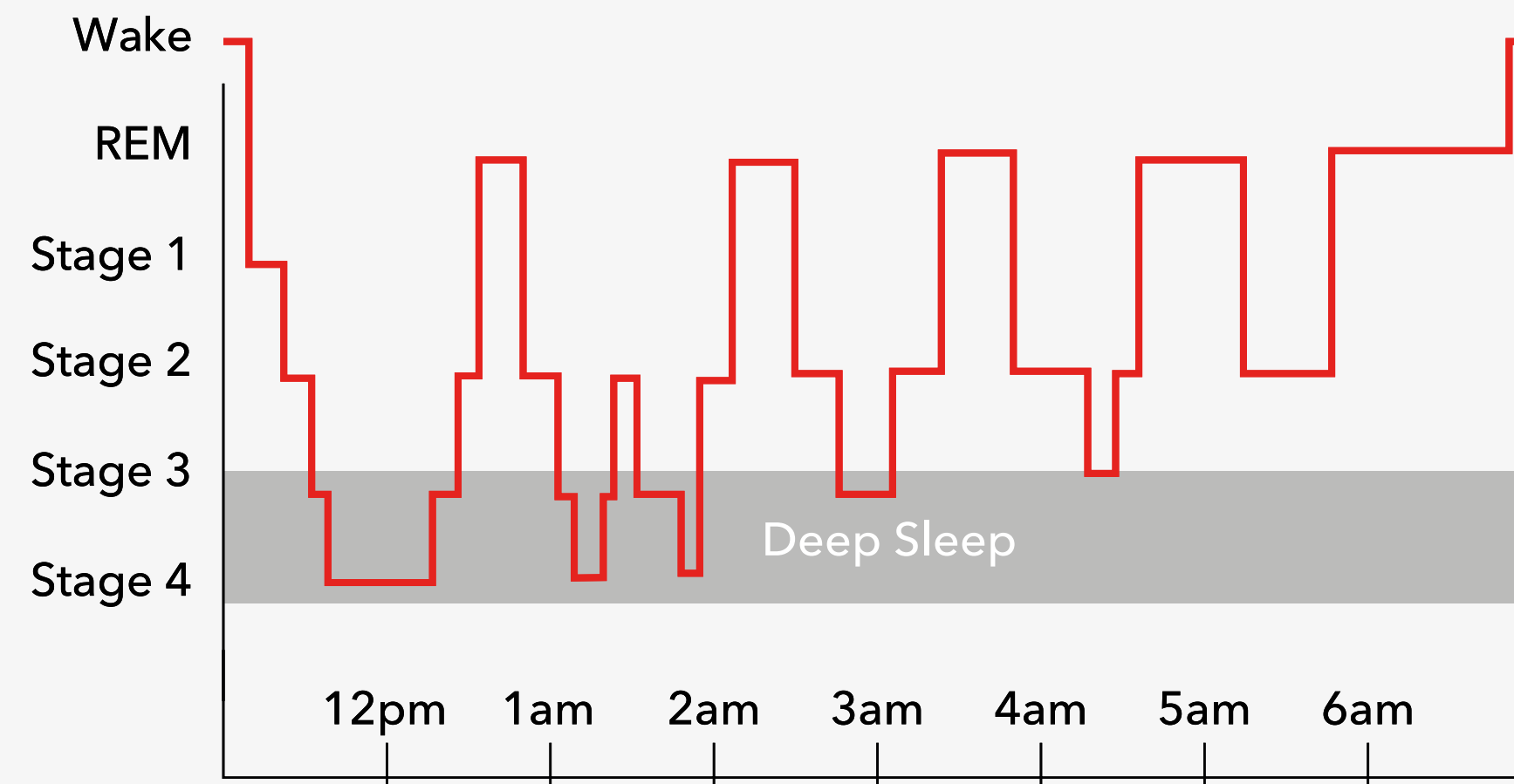
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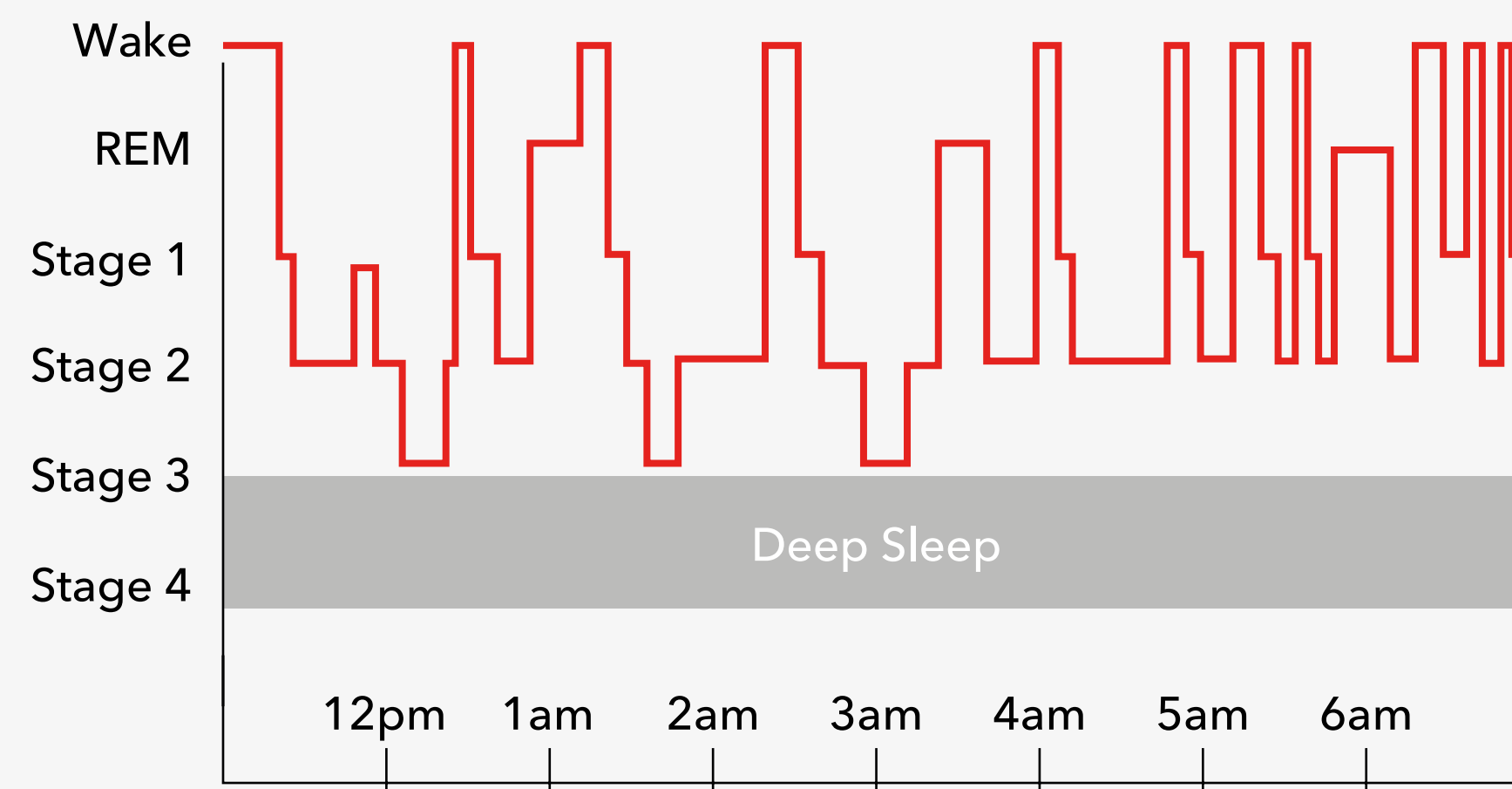
Zeez



Hypnogram of a normal sleeper



Hypnogram of an elderly sleeper



Elderly people often sleep lightly, with fragmented nights and early awakening. Their sleep issues are often exacerbated by medications, and in the case of people with Parkinson's and Alzheimer's, protein build-up in the brain damages sleep quality, which in turn leads to more protein build up – a vicious circle.



Improving sleep is beginning to be recognised as a potential means to improve disease symptoms. In a care home, disturbed sleepers require greater night-time care. Sedation is not an answer: it reduces deep sleep and worsens symptoms.

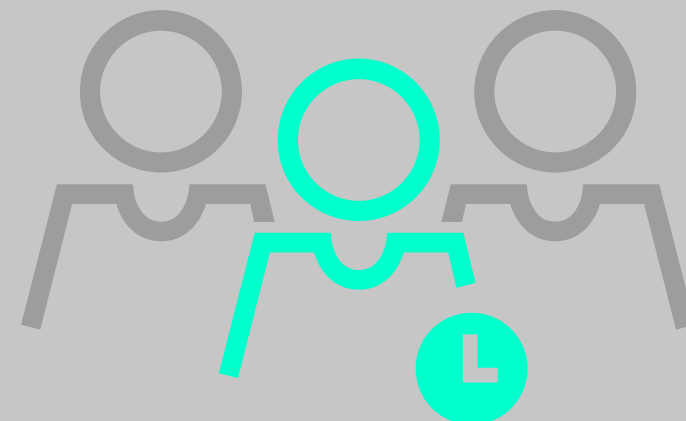
## How better sleep could help your care home

### Zeez is good for business

Poor sleep is estimated to cost the UK almost 2% GDP, £40 billion.

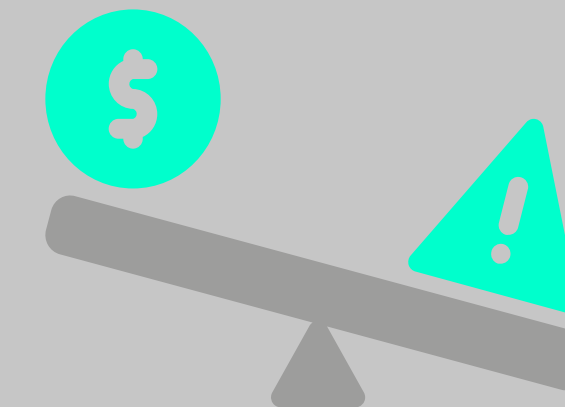
What does it cost your care home?

People who sleep well take less time off work.



Poor sleepers average 6 more days sick leave per year.

Poor sleepers make bad decisions & are less productive.



Poor Sleep is linked to risk-taking, accidents, irritability, poor mental and physical health and low productivity.

Poor sleep costs £ks per employee.



In 2010 a study of 4 US corporations showed the cost of lost productivity amongst poor sleepers as \$3,200, amongst those with less severe sleep issues as \$2,500 and amongst 'good' sleepers as \$1,300.

Good sleepers are happier employees.



Well rested employees have better judgement, more empathy, better communication skills, are more resilient, more positive and happier.

## Family carers



Carers UK 2014 survey: carers averaged 4hrs 26 mins sleep. This puts carers at risk of heart disease, cancer, diabetes, poor mental health and dementia, as well as increasing their risk of infection. Carers' poor sleep may be due to the wakefulness of the person for whom they care, or their own anxiety or depression.

## Night time care



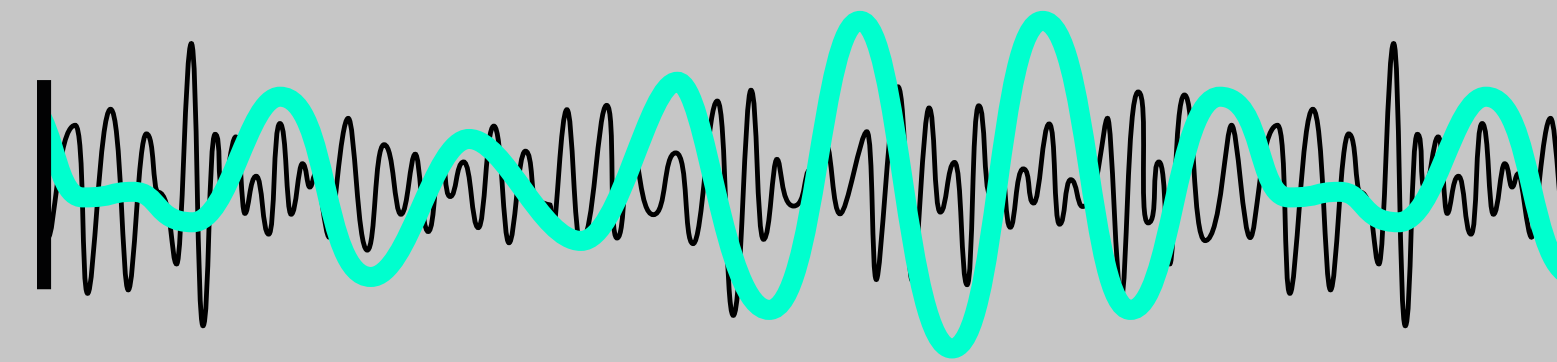
Night time care is expensive. If we can improve sleep quality, we reduce the need for night-time care. We expect to enable better sleep and reduce night-time care significantly, and to show the potential cost savings with a 6 week trial.

## Our Technology

The Zeez Sleep Pebble emits pulses which match the pace, duration and form of the natural brainwaves of a good sleeper through relaxation and four cycles of deep restorative sleep. The Zeez is extremely low power, using a fraction of the power of a mobile phone. Most people who use our device fall asleep, stay asleep, sleep deeply and wake refreshed. Our technology is patented, and there is nothing else like it.

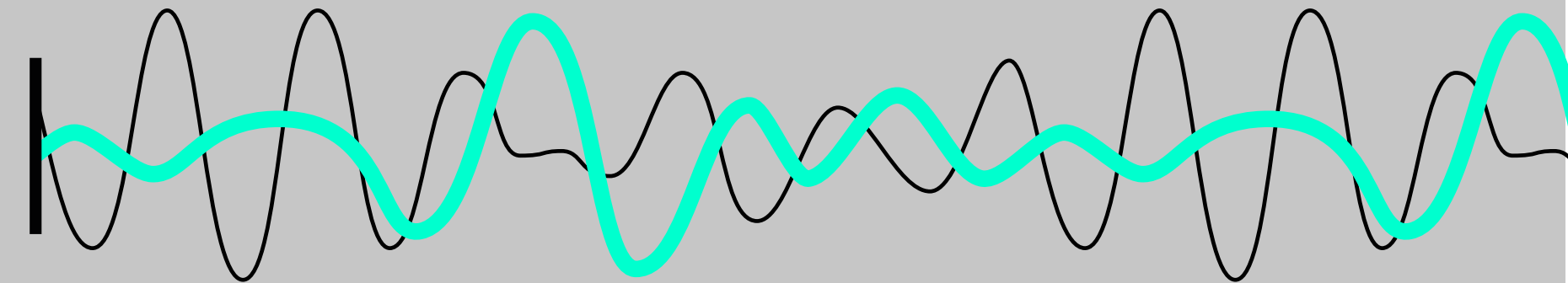
### It helps you to relax

In order to relax, your brain must slow down so that beta activity (13 - 30 Hz) decreases and alpha activity (8 - 12Hz) increases. The Zeez Sleep Pebble generates frequencies in the alpha range to help us to chill out.



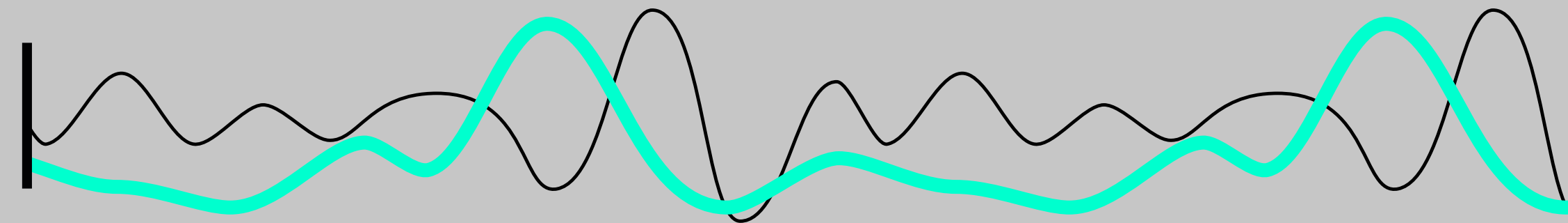
### It helps you to fall asleep

In order to fall asleep, our brain must slow down to a speed of 4-8Hz (theta brainwaves.) So we generate frequencies in that range too.



### Helps you to sleep deeply

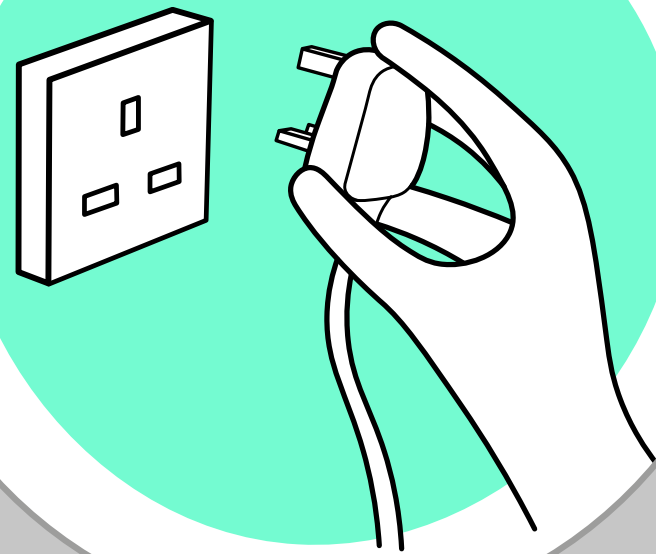
In order to sleep deeply, our brain must slow down to a speed of 0.5 -4Hz (delta brainwaves.) We generate these, timed appropriately for four sleep cycles. After a while most people sleep deeply.





## How to use the Zeez ...

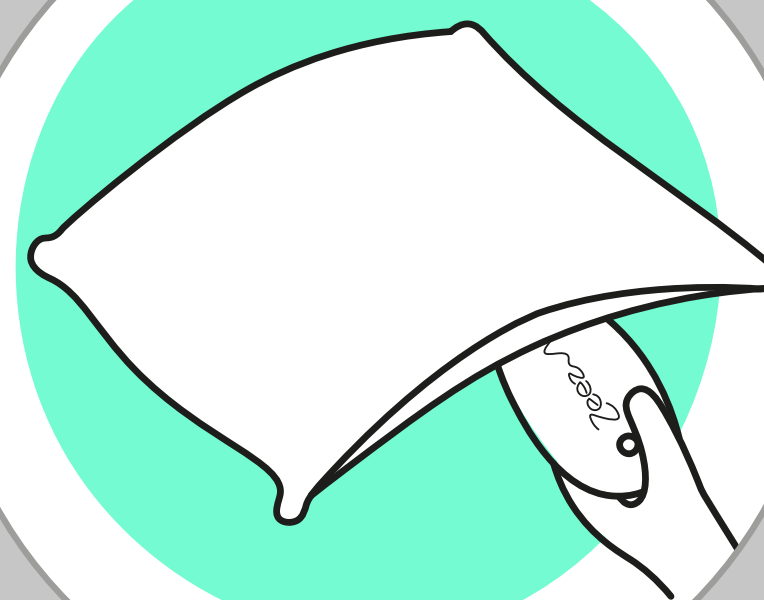
unplug nearby electronics



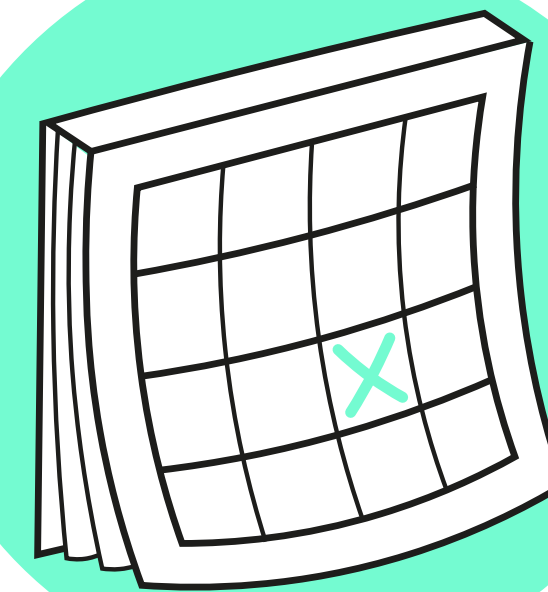
switch on the zeez



place the zeez under your pillow



wait a few days for your sleep to improve



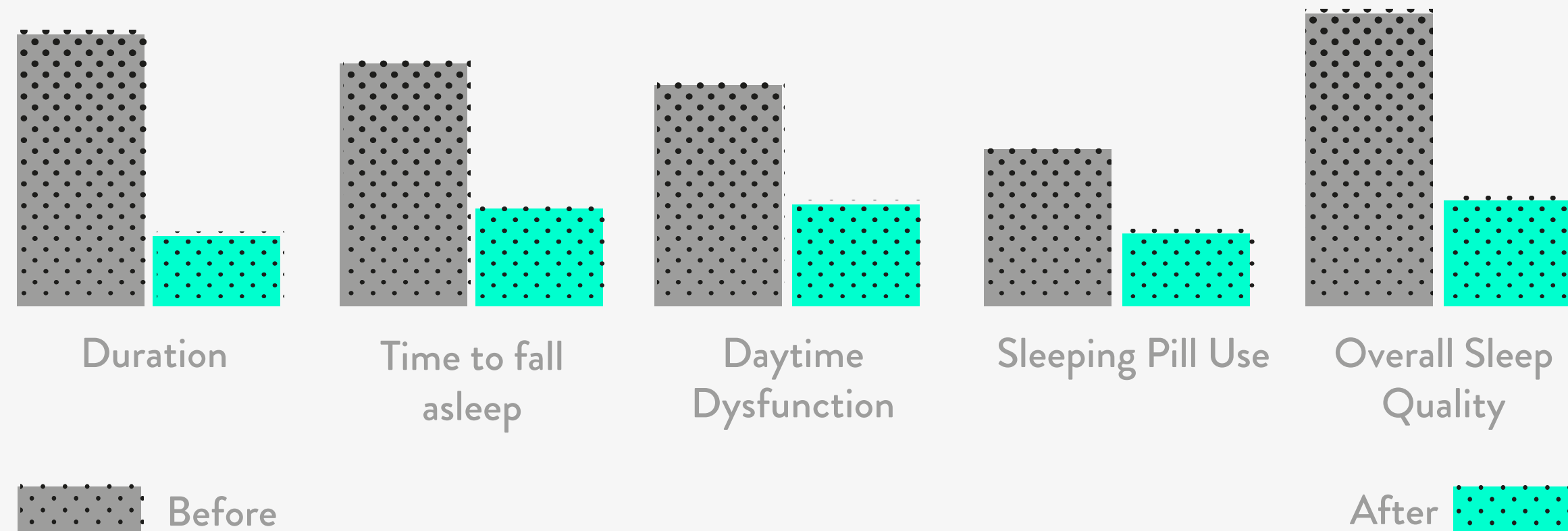
## Our Results

Our own testing

(Pittsburgh Sleep Index - the lower the score, the better the sleep)

47 users

Before and after using the Zeez, according to the Pittsburgh Sleep Index



## Independent Testing

Plymouth University Hospital recently completed a case series study with Parkinson's patients. A report will be published soon. The university wants to under-take a large randomised controlled trial. An informal trial is being conducted by dementia care company Unforgettable amongst its patient group and a case series study is planned at the Royal London Hospital for Integrated Medicine, which has the largest insomnia clinic in the UK.



Shortlisted for a Design Week Award 2019 (Consumer Product)



Nominated for Hotel 360 Expo's Innovation Award



4.8 - average user review

800

Users

70-80%

Of our users experienced a significant improvement in their sleep

6 years

Longest users.

Selling since.

Oct. 2018

“Of all the tech here, the Zeez Sleep Pebble, a neuroscientific response to our permanently wired state, seems the most revolutionary...a seriously impressive piece of kit.”

— Wake Up To The Future Of Sleep, Anna Maxted, Daily Mail.

## Testimonials

*I'm 77. After a lifetime of insomnia I found it hard to believe that a device under my pillow could improve such an embedded problem. After the second night of improved sleep my skepticism began to fall away and the Zeez started to make a huge difference to my life.*

*I no longer get a feeling of dread as bedtime approaches. The angry frustration of not being able to relax and drift into sleep has disappeared and so have the long hours of restless, agitated and fearful wakefulness. I still wake sometimes but am able to get back to sleep again quickly. The quality of my sleep has improved markedly. I wake feeling rested and refreshed and ready for the day, in a way I don't remember before. During the day I feel calmer.*

*The Zeez has been a real blessing for me, and a very unexpected one at my time of life. By improving the quality and amount of sleep I have many other areas of my life have been changed for the better. I wholeheartedly recommend the Zeez to anyone suffering from long standing sleep problems, especially those in older age.*

**Janet, 77**

*“After trying apps, supplements etc, it was great to discover the Pebble and realise what a good night's sleep felt like! It does seem to be a technological step above anything else on the market. I recently travelled on business and it was one of the first items I packed.”*

**James, Maths teacher**

*“I sleep substantially better. I wouldn't be without the pebble. My mood is brighter. Occasionally I get 7 hours' sleep, which would never have happened before.”*

**Robert, solicitor**

*“I have had difficulty sleeping all my life. The Zeez taught my brain how to sleep.”*

**Attila, tennis coach**



## Our Product

Helps no matter  
how severe or  
longstanding the  
sleep problem

Silent, no vibration

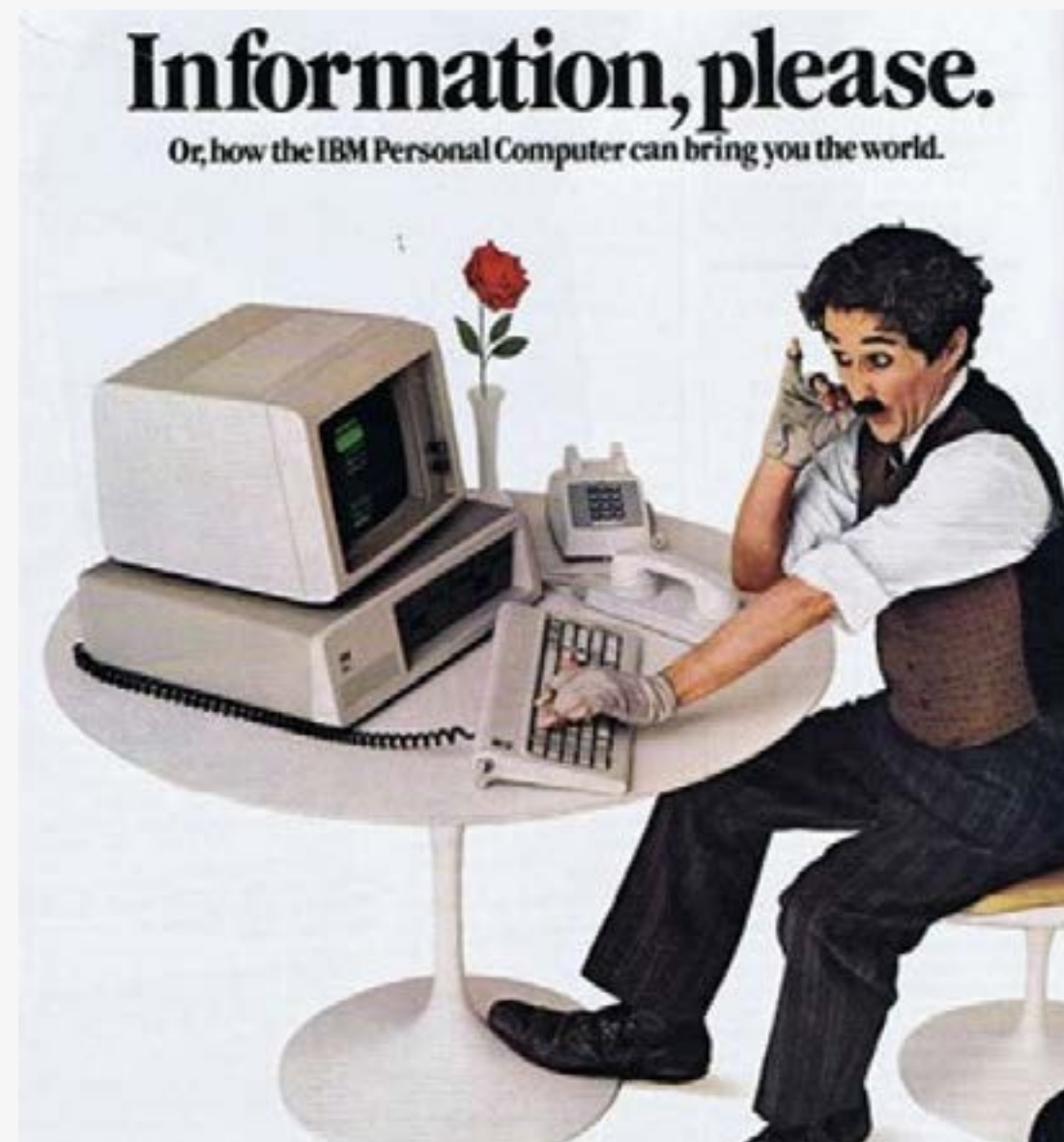
One button.  
Pure simplicity

No app. Switch on  
and sleep



Designed and  
Made in the U.K.





## Our Story

In 1979 Steve Walpole already one of IBM's top engineers at 21, had a car crash. 23 fractures, four pints of lost blood, head injury. Months on, Steve's brain still wasn't working properly and he had dreadful migraines. Steve made his own computer, and an EEG, which showed that frequencies that should be generated by his frontal lobes were missing.

Steve wondered if he could he get the missing frequencies into his brain? Would it help? He analysed his own brain repeatedly, as well as that of any willing person, and eventually discovered that he could safely reintroduce missing frequencies. And stop his migraines.

Steve developed and sold migraine devices using an early precursor to our tech. ("Empulse", "Enermed". "Trimed" "Migrapulse"). His companies failed with the crash of early 90s.

In 2008, Anna persuaded Steve to work with her, on sleep. You could say that this was an awakening. The hardware, frequencies and timings of our device have been the same for 6 years and used by hundreds of people.