

‘IN THE ARMS OF MORPHEUS’

(The science of sleep)



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A few random thoughts

Humans spend one third of their life sleeping

Around 70% of adults sleep next to their smartphone

Humans are the only mammal that willingly delays sleep

For teenagers 1 hour of digital screentime = 4 to 8 mins lost sleep

You grow 0.3 inches while sleeping

Up to 15% of the population are sleepwalkers

It is common for deaf people to sign in their sleep

Women sleep more than men

Why do we all need sleep ?

Detoxification & Rest

Memory & Learning

Heart & Blood Pressure

Mood

Appetite

Immunity

Growth

Historical Aspects of Sleep

Relaxed before bed , by such as praying

Sleep in two phases of 4 hrs with a break

Avoid heavy foods/alcohol & drink a posset

Sleep on R Hand side then L Hand side

People did not lay flat in bed but propped up
with pillows or bolsters

A maid or servant slept on
trundle beds

Physiological Changes During Sleep

Body Temperature

Respiratory Patterns ***

Cardiovascular Activity

Other Changes

***	<u>Age</u>	<u>Breaths per</u>
<u>Min.</u>		
	Newborn	30-60
	Toddlers	22-34
	Children	18-30
	Teens	13-21
	Adults	12-20

Quantity of Sleep We Need			Daily
Age Range			
Sleep (hrs)			
12-16	Infant	4-12 months	
	(+naps)		
11-14	Toddler	1 - 2 years	
	(+naps)		
13	Pre school	3 - 5 years	10-
12	School age	6 - 12 years	9-
10	Teenagers	13 -18 years	8-
7-9	Adults	18 & over	
7-9	Older adults	60 & over	
	(+ naps)		

Lack of Sleep Can Cause Problems

It can make you more sensitive to pain

Can make you eat <385 cals per day more

It can ,for men ,lessen their testosterone level

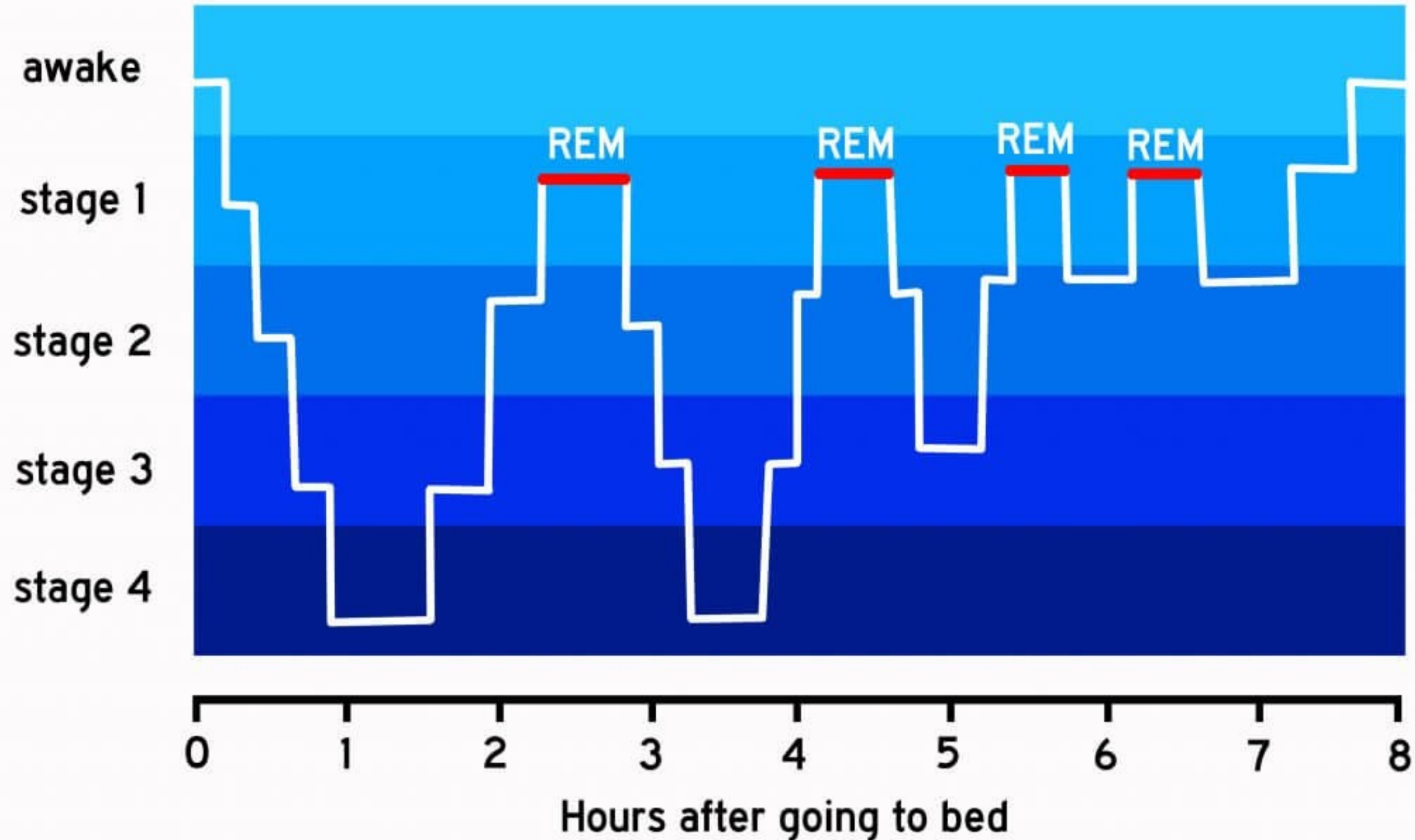
For young women affects reproductive health

Is linked to heart disease, anxiety, diabetes,

obesity , impaired thinking & memory

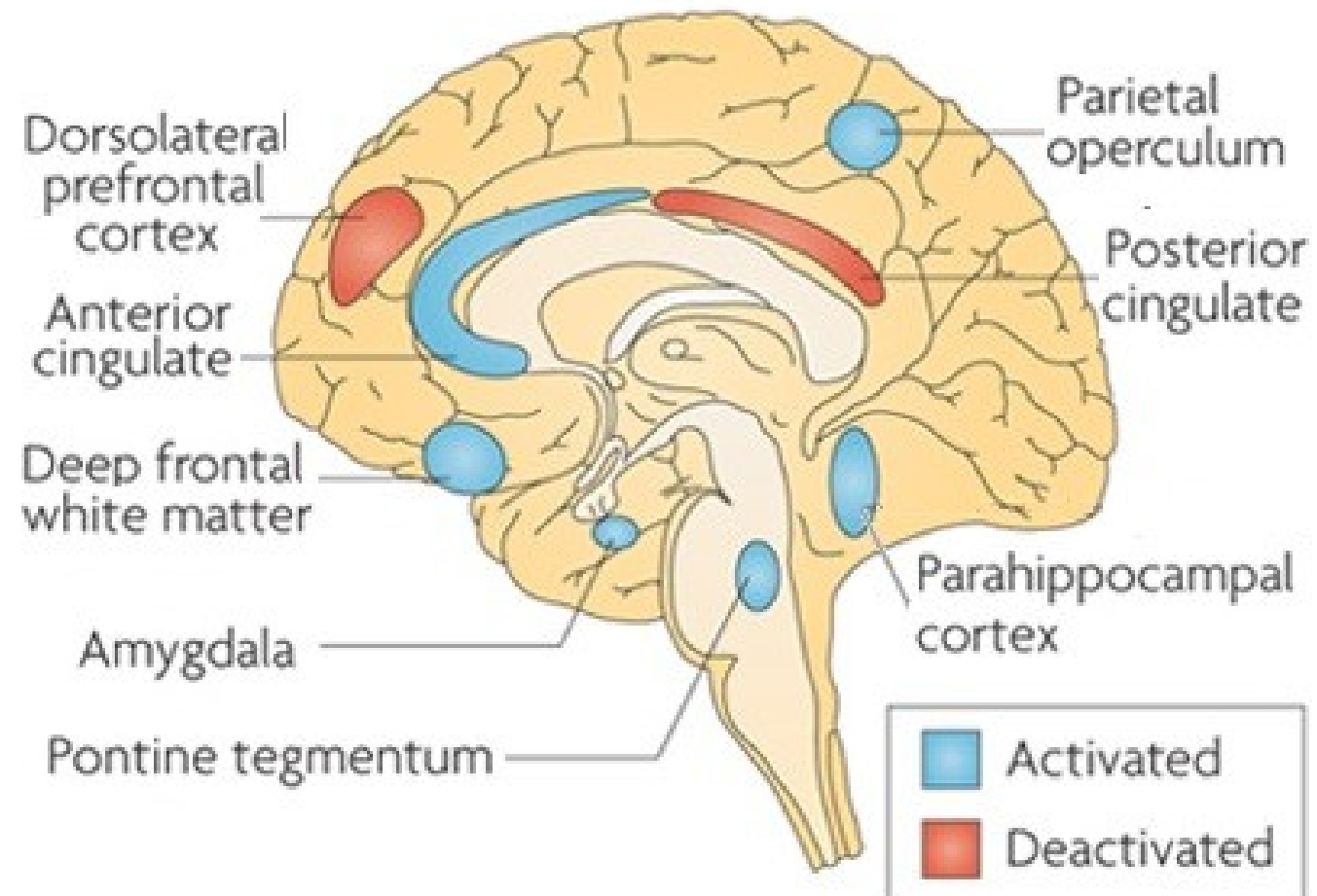
“ Sleep deprivation will kill you more quickly than food deprivation !”

A TYPICAL 8 HOUR SLEEP CYCLE



- * **Slow Wave sleep**
- * **REM (rapid eye movement) sleep**

The Brain & Dreaming



INSOMNIA

Can effect up to 65% of
people

Greater for women, older
people
& lower socioeconomic
status

Range of potential causes
Treatments and lifestyle
changes

Obstructive Sleep Apnoea &
links
to levels of obesity &
Alzheimers

Good Sleeping Habits (*sleep hygiene*)

Keep to a sleeping (& eating) routine

Control ambient lighting & 'green' the room

Avoid caffeine & alcohol late on

Avoid social media & emails late in evening

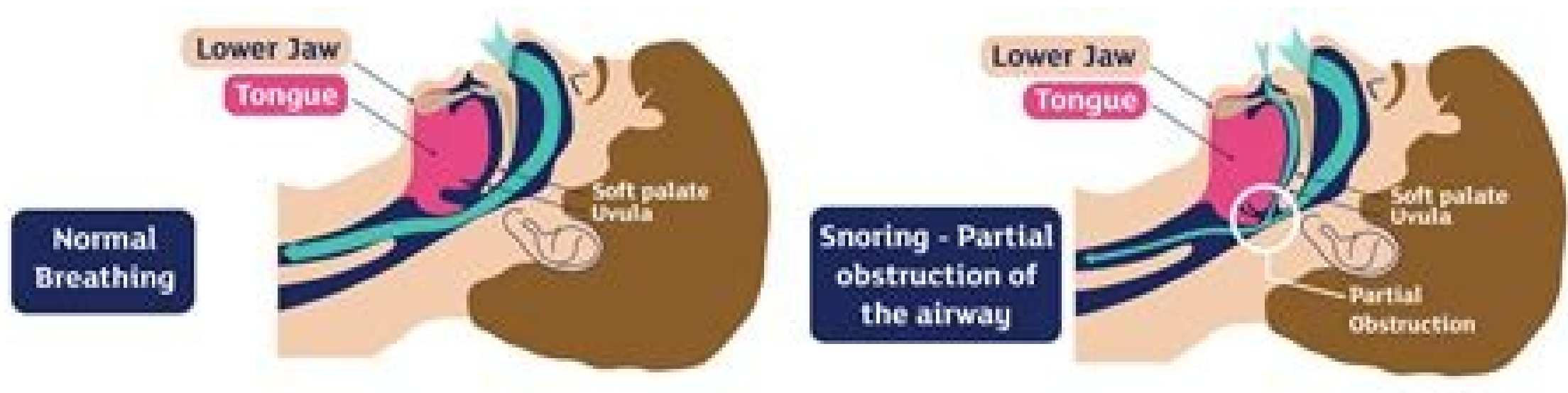
Clothing breathable & **maybe wear socks in bed**

Finish large meals at least 3 hours before bed

Minimise non-sleeping time when in bed

Helpful foods inc those with Tryptophan, Melatonin, Magnesium & Fibre

Why do I snore (& how to fix it) ?



Some quick fixes for snorers

Try and sleep on your side

Buy a wedge shaped pillow/ raise your bed head

Use a nasal spray or essential oils

Reduce your weight

(Have separate bedrooms !)

Are Naps good or bad for you ?

Napping is part of the culture in many countries

Most people experience sleepiness early p.m.

Studies have shown benefits (e.g in heart disease)

Longer naps can though increase risk of diabetes

Yawning & Closing Your Eyes

Adults yawn 20 times per day
(average)

What are the theories ? (no
agreement)

Contagious yawning

20% people sleep with eyes part
open

Eye closing stops light entering

Eye closing protects them

SLEEPING IN SPACE

- ISS crews 6 hours sleep, NASA schedule 8 hours

Cramped space plus noise

Wear face masks & ear plugs

Air venting due to CO2 bubble

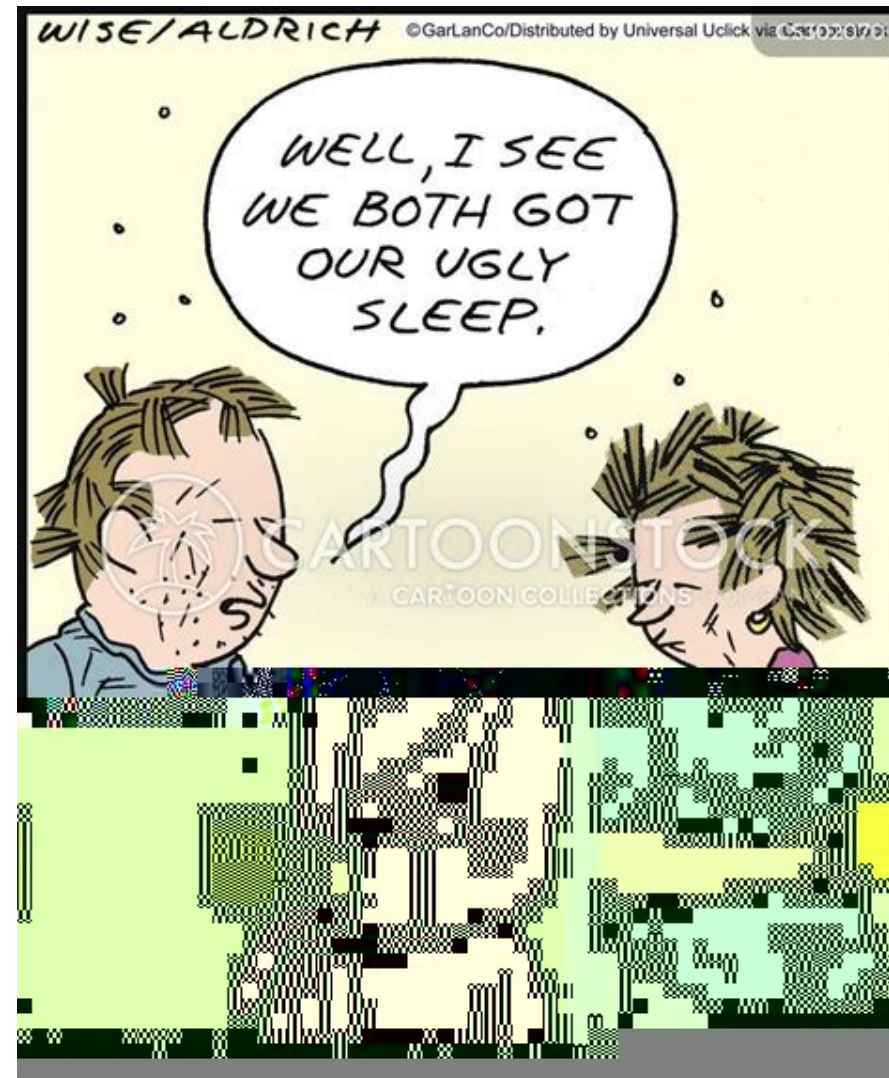
Some have dreams & some snore

Sleep deprivation & circadian rhythm disorder

Tai Chi training, acupuncture etc being tested

for longer term flights

**Remember Sleep is your
very best
life and health insurance !**



**Questions and Comments
Please**