



What
is
SLEEP?

Sleep is ancient!

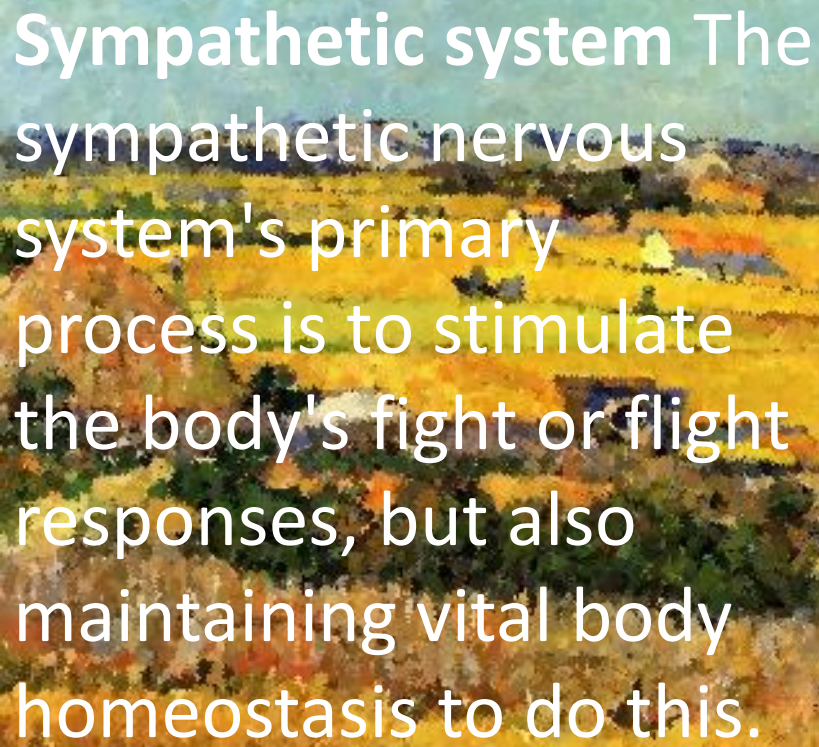
- The daylight cycle was established before life began on earth.
- Life has grown up relying on this cycle.
- It is thought all life has circadian rhythms because of this.
- Humans have a natural circadian rhythm that is not typically 24 hours long!
- Beware of research, which is made of averages and ideal research studies.
- We may not be ancient but our lives are complicated!

Sleep in Humans

- Controlled a part of the hypothalamus, superchiasmatic nuclei SEN, (a central pacemaker or oscillator and only 50,000 cells)
- But every cell in the body has a circadian rhythm too, and these may contribute too to the way the clock is set.
- The cells of the body and the SEN interact to form the circadian rhythm.
- Humans sleep less than any in the primate! We're more efficient and our brains are more active when we sleep than other primates.

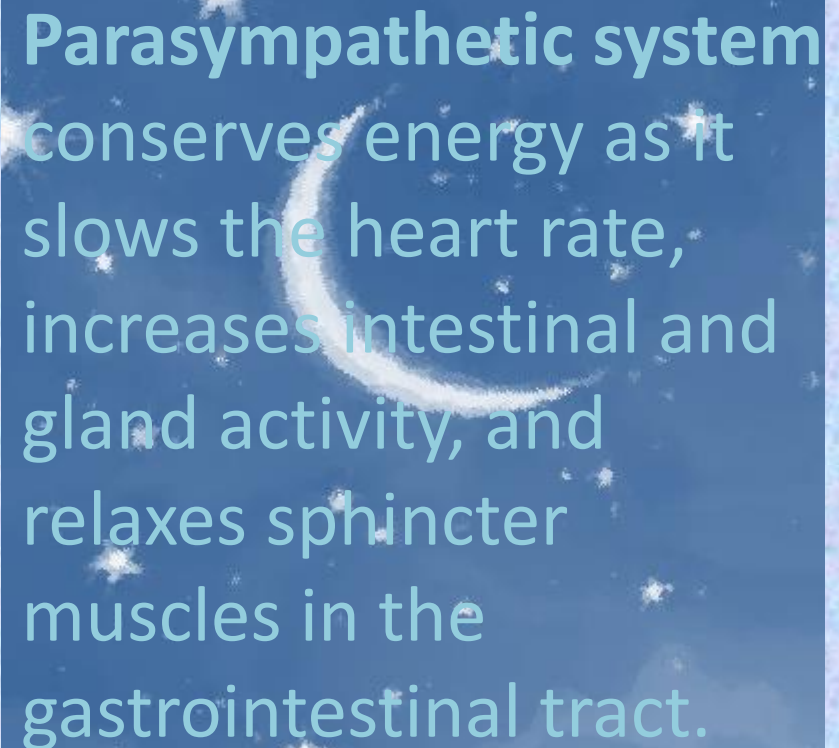
The On-Off System

There are actually TWO distinct central nervous systems for arousal.



Sympathetic system The sympathetic nervous system's primary process is to stimulate the body's fight or flight responses, but also maintaining vital body homeostasis to do this.

"feed and breed"

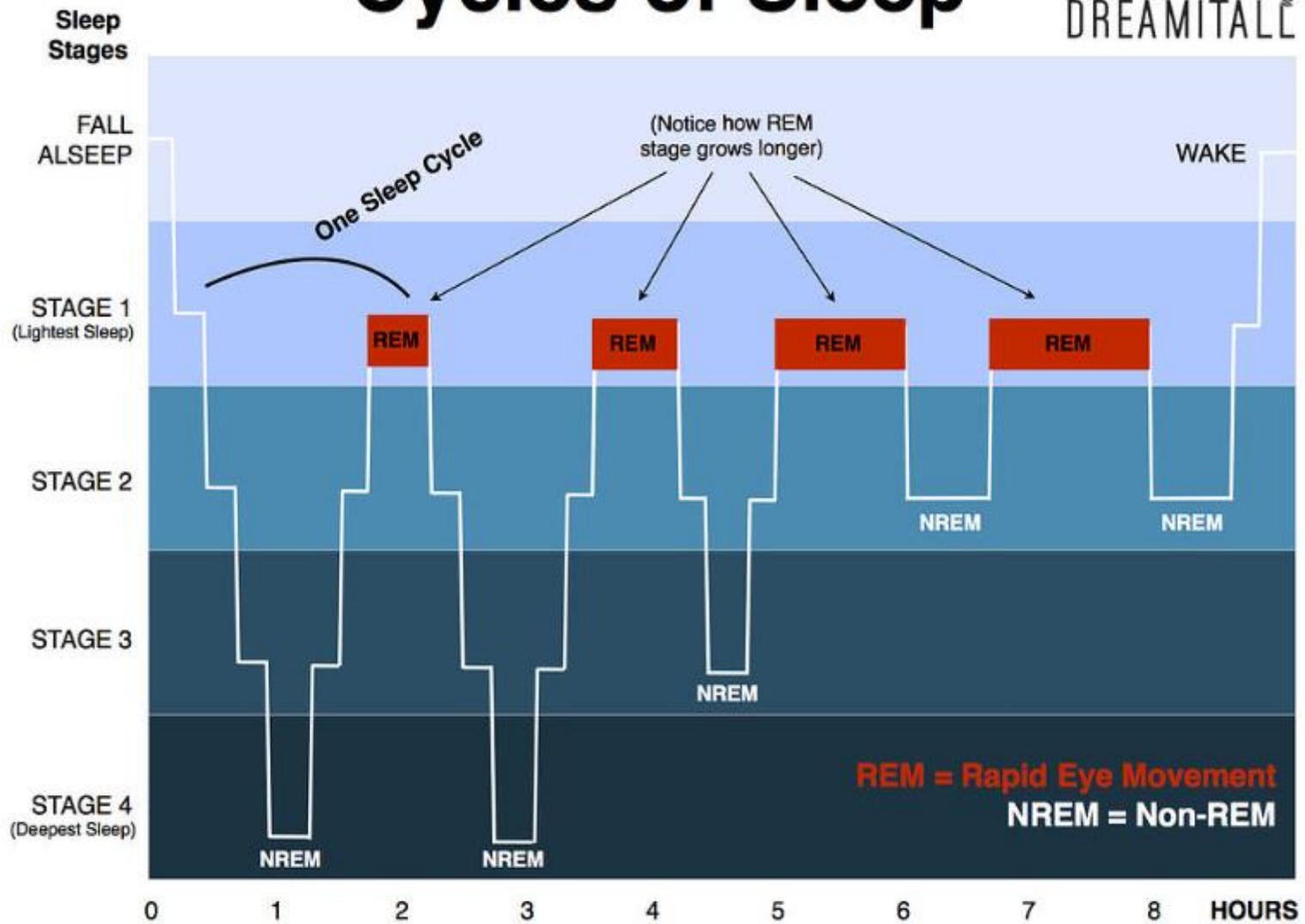


Parasympathetic system conserves energy as it slows the heart rate, increases intestinal and gland activity, and relaxes sphincter muscles in the gastrointestinal tract.

"rest-and-digest"

Cycles of Sleep

DREAMITALC







Night Terrors!?

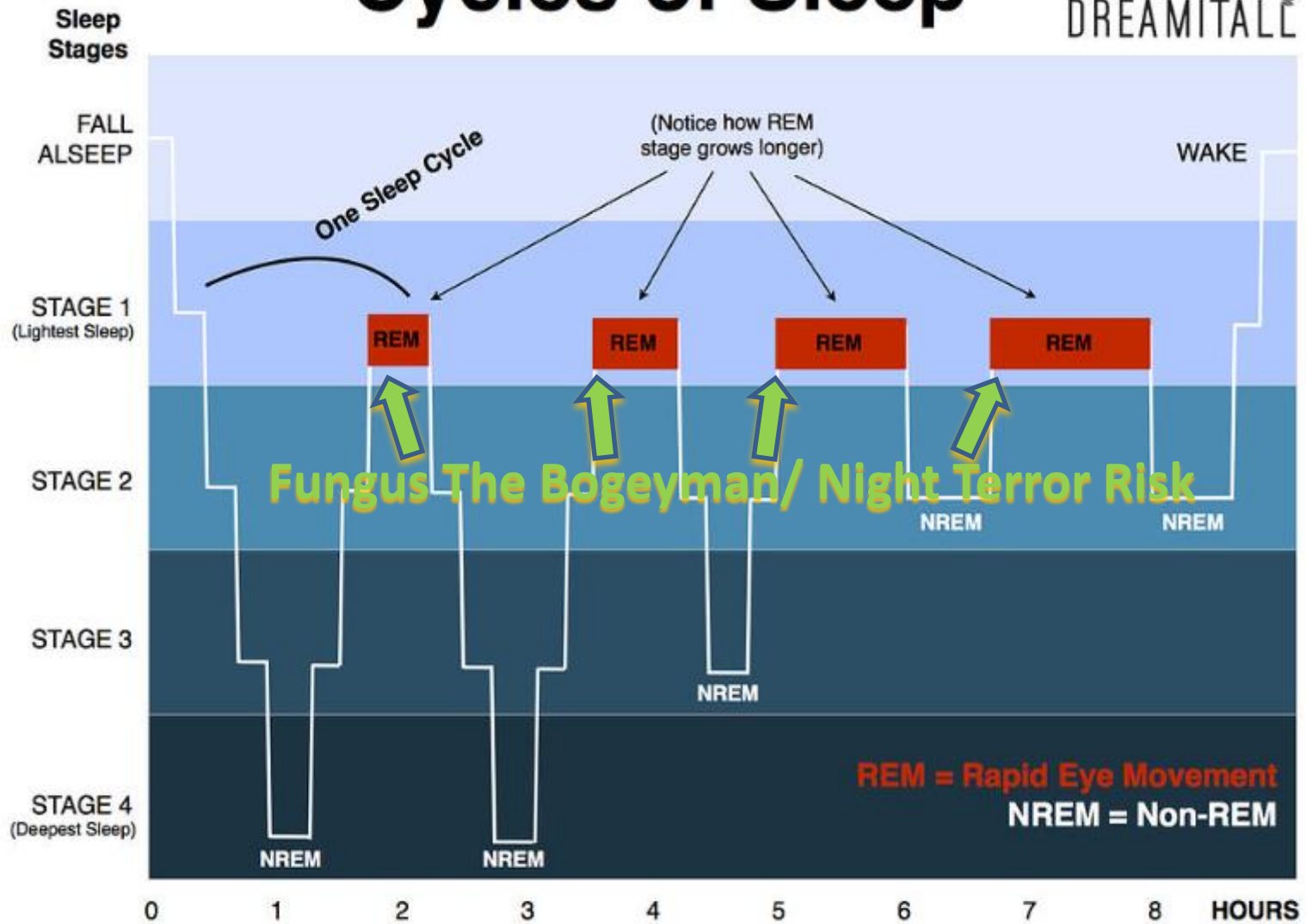
Fungus The Bogeyman

Night Terrors!?

- Child appears awake, and may be moving around but does not respond when called, or talked through.
- May be showing visible sign of distress as if having a bad dream.

Cycles of Sleep

DREAMITALC



Night Terrors!?

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What should be done?

Night Terrors!?

- Child appears awake, and may be moving around but does not respond when called, or talked through.
- May be showing visible sign of distress as if having a bad dream.
- **Take to the toilet, and then put back to bed!**

Sleep Hygiene

Good sleep hygiene is knowing what to avoid before sleeping, and what works!

AVOID

- Loud Noise
- Excessive movement
- Rough and tumbling
- TV or screens 2 hrs before bed
- Bright light
- Eating too much close to sleeping
- Sugars
- Fruit juices/vitamin C
- Getting to bedroom too late
- Variable routine in 1-2 hrs before bed

TRY

- Familiar snack at beginning of routine
- Stories
- Lowering light levels slowly
- Using different coloured light (redshift)
- Relaxing music or white noise
- Use voice modulation
- Don't ask permission!!!
- Deep pressure/snuggles/massage
- Smells
- Tactical toileting 😊
- Start preparing 1.5 – 2 hrs before sleep!

Early Waking!

- “Raging at the light”!
- Cut out extraneous light!!
- Pricier options include outside shutters, blinds, and blackout curtains and rollers
- The latter can become toys and be wrecked!
- Cheap options include, tin foil on windows, & home made blackout curtains on velcro (pull down and go back up easily).
- Beware household routines...The milkman Dad!...central heating going on etc.

Nigel basked in his epic victory!

The background of the slide is a classical painting depicting the Four Horsemen of the Apocalypse. The figures are on horseback, dressed in armor, and appear to be in a state of chaos. Overlaid on the center of the image is a large, semi-transparent brown shape resembling a poop emoji. The text is overlaid on this shape and a white banner at the top.

The GLOBAL Arousers!

Or the 3 riders of the apocalypse and a poo instead of death!

FAMINE (Hunger/nutrition)

PLAGUE (Pain/illness)

WAR (Stress/Worry)

POO! (Constipation)!

Is it Sensory?

- Sometimes sleep difficulties may be linked back to sensory processing difficulties.
- Between 44 and **86 percent** of children with autism have a serious problem with sleep. By comparison, between 10 and **16 percent** of children in the general population have difficulty sleeping.

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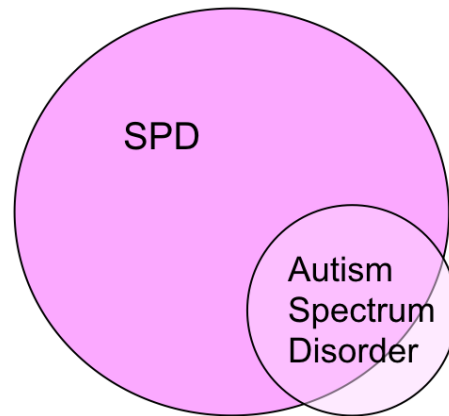
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Is it Sensory?

- Rates of sensory processing dysfunction may be as high as 90% in individuals with Autism Spectrum Disorder (ASD) ([Baranek et al., 2006](#) ; [Leekam et al., 2007](#) ; [Tomchek and Dunn, 2007](#) ; [Baker et al., 2008](#)) and are estimated to be between 5% and 16% in the general population ([Ahn et al., 2004](#) ; [Ben-Sasson et al., 2009](#))



Baranek, et al, 2006,
Tomchek & Dunn 2007,
Schoen, et al 2009

Nigel basked in his epic victory.

If it is, what can we do?

- A sensory profile can be helpful.
- This may tell what senses are over sensitive and which are lacking.
- This may help explain sensory stressed behaviours and sensory seeking behaviours.
- Sensory stress behaviours are best dealt with by eliminating or countering the stressors.
- Sensory seeking behaviours are going to need a targeted sensory diet.

Sound/Auditory

- Children can be sound sensitive for many reasons.
- White (or Brown to purple noise may help)
- Don't let them control the speaker. It should be neutral, a part of the room.
- Using a blue tooth speaker mounted high up may help (can use battery).
- Brilliant free app called [White Noise](#) on itunes
- Children who wake to noise make are usually not seeking sound but meeting other sensory needs, with the exception of haptic learners.

Nigel basked in his epic victory

Touch Defensive

- These children often experience high arousal states.
- Their touch defensiveness is often harder to manage when there are no distractions, e.g. at night.
- They may often seek deep pressure as this gates/counters the oversensitivity.
- Deep pressure sensory diets and activities can help.
- They may struggle with affectionate touch as part of bedtime routine.
- They may prefer heavier quilts and harder mattresses or the floor, or even under the mattress!
- Brushing and joint compression may help some children.
- There is now [contraindications](#) and also safety guidance regarding weighted quilts. Some clinicians in America are more open to their use, as covered [here](#).

Touch Seeking

- These children are often very active or physical.
- There are two major types. Those seeking proprioception (deep pressure), and those seeking discriminative touch (textures).
- Both are prone to poor settling and waking early to engage in stimming, hard physical activity or repetitive fine motor behaviours.
- Again sensory diets are helpful, but these need to be targeted, sustained across the day.
- Some will respond deep pressure input as for touch defensive children above.
- For some vibration massage will help, but this needs supervision.

Nigel basked in his epic victory

PICA Oral Sensory Seeking

- These children seek really high levels of oral stimulation.
- Their fine motor skills when not placing things in their mouth are sometimes delayed.
- They find it hard to concentrate on any thing else.
- If they start this unexpectedly, have a look at dental health as their may be an underlying problem that needs to be ruled out!
- The [Z-Vibe](#) is a tool that can be tried for giving supervised support so that they can settle.

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Seeking Movement

- Some children seek a lot of movement! Only then can they calm down.
- Some of these children are actually deep pressure seeking (see tips above).
- Others actually need to use movement to stimulate their sense of balance. They find night times challenging!
- Typical chilling out and mellow bedtime routines are the opposite of what they need! Playing movement games such as chase and rough and tumble may work. Careful consideration of the child's raised expectations are needed though!!!!
- These children often have linked needs to deep pressure, which allows a calmer approach to bedtime.
- For some of these children higher levels of movement before bed time are may be what's needed.
- Some may even need sensory swings, or egg chairs, but these should be used with caution and OT advice is strongly recommended, as some children can have adverse reactions.

Nigel basked in his epic victory

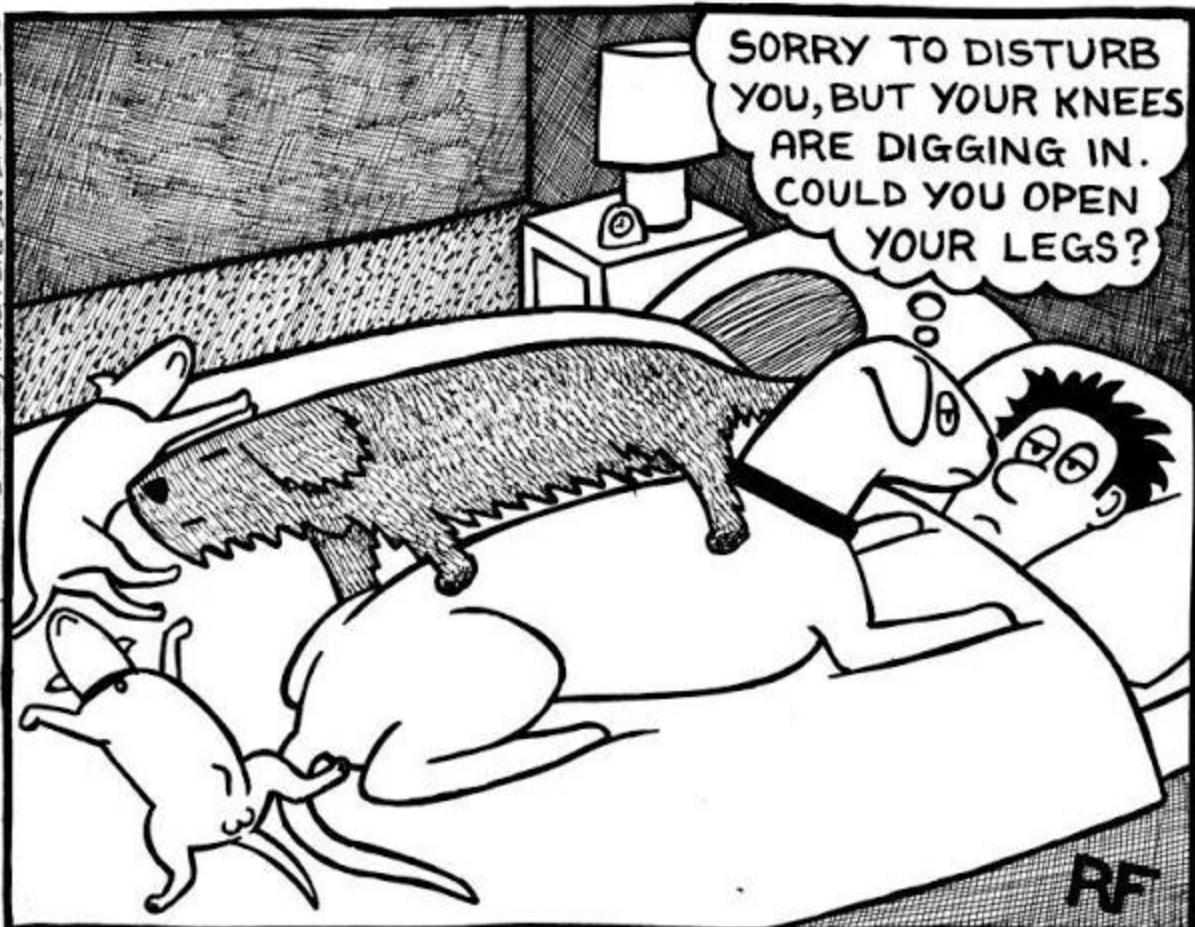
Sensory Lights

- Some children needs sensory lights to feel oriented at night.
- These can be connected to a big mac switch.
- If you can ceiling mount or make the light safe then there are come very cool cheap lights available. These can also be connected to blue tooth for soothing music or white noise.

The image is a complex, multi-layered collage. In the background, a city skyline with tall buildings is visible against a dark, starry sky. A vibrant rainbow arches across the upper portion of the image. To the right, there is a large, glowing, multi-colored orb or flower-like structure with intricate patterns. In the foreground, a person's face is partially visible, appearing to be in a state of deep sleep or meditation, with their hand resting near their face. The overall color palette is dominated by deep blues, purples, and vibrant oranges and yellows from the glowing elements.

...and Lastly!

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GEORGE HAD ALWAYS THOUGHT HAVING
THE DOGS SLEEP ON THE BED
WAS A BAD IDEA

FACEBOOK.COM/OFF THE LEASH DAILY DOG CARTOONS

Attachment Issues!

- Children who are still sleeping with their parents may have sensory needs.
- They will almost certainly have attachment issues to work through too if you are working to establish independent sleeping routines.
- Make their room sensory safe and a place they want to spend time in.
- Use familiar smells, even smelly sports kit has been known to work!
- Be prepared to work gradually in small graded steps. Preparation is important before the first steps.
- Get them involved in the decorating of the room if this is realistic.