

# Sleep Well – Managing Sleep and Fatigue

***Dr Nick Mabbott***

***Fatigue Risk  
Management  
Specialist***

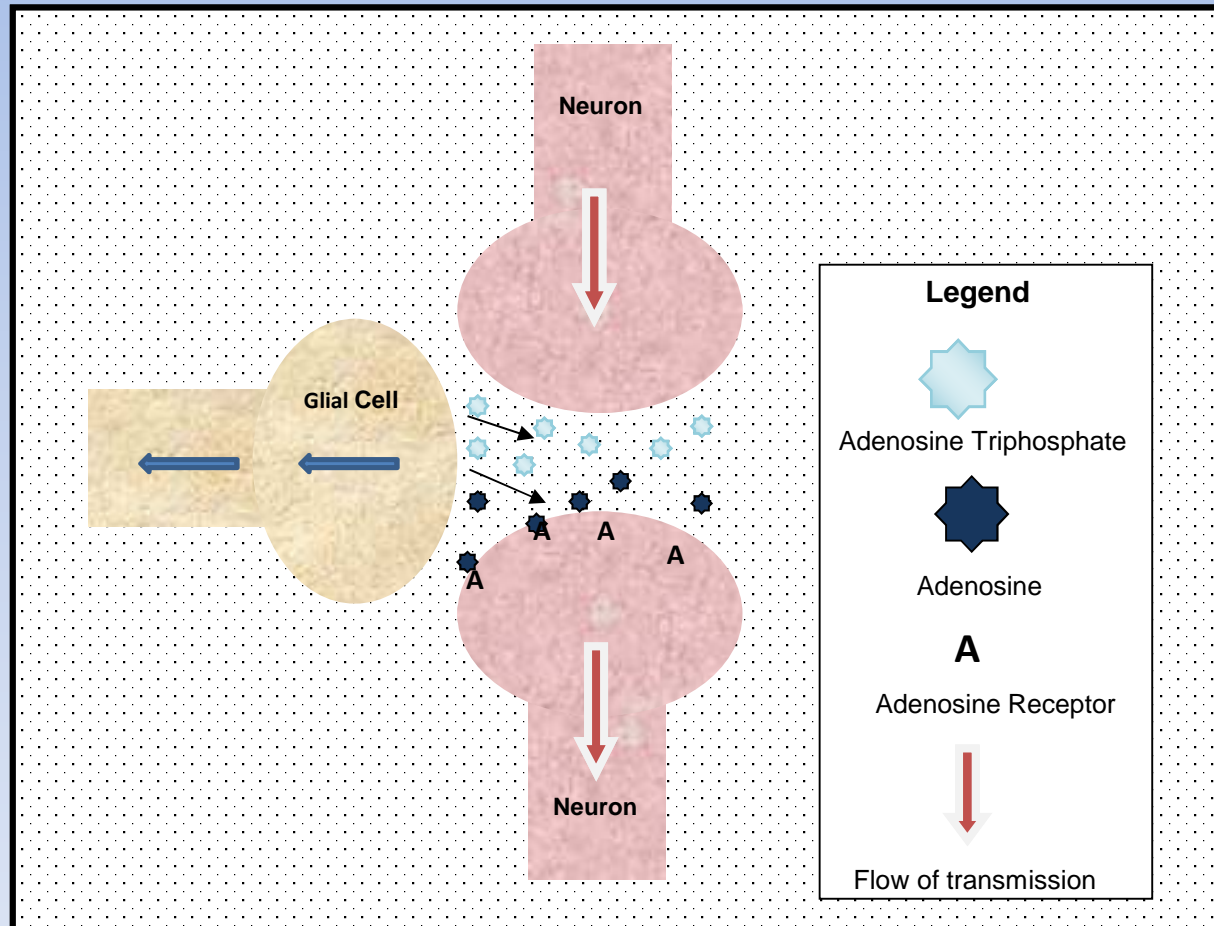


# Understanding the Need for Sleep

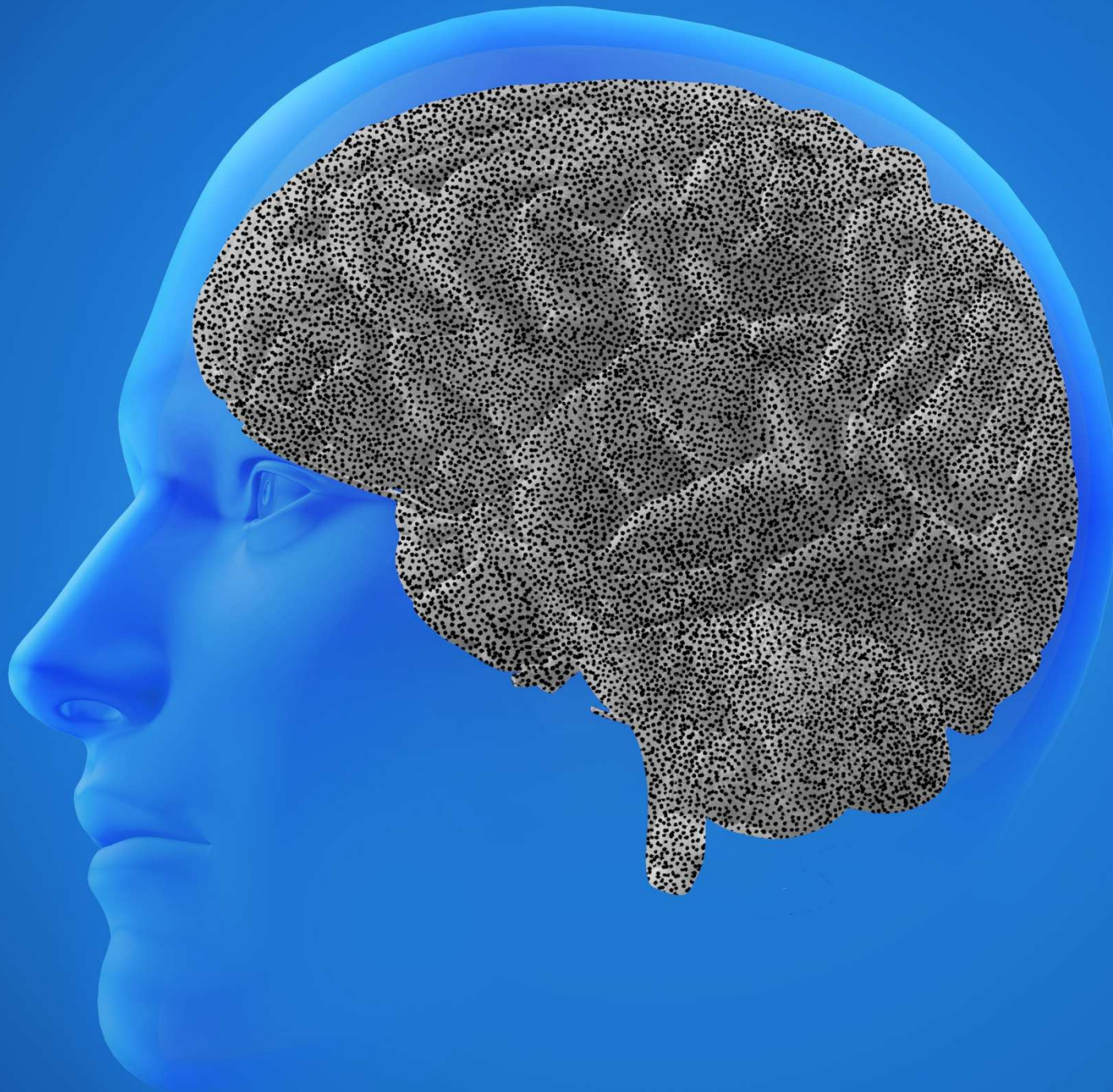
A homeostatic response to life



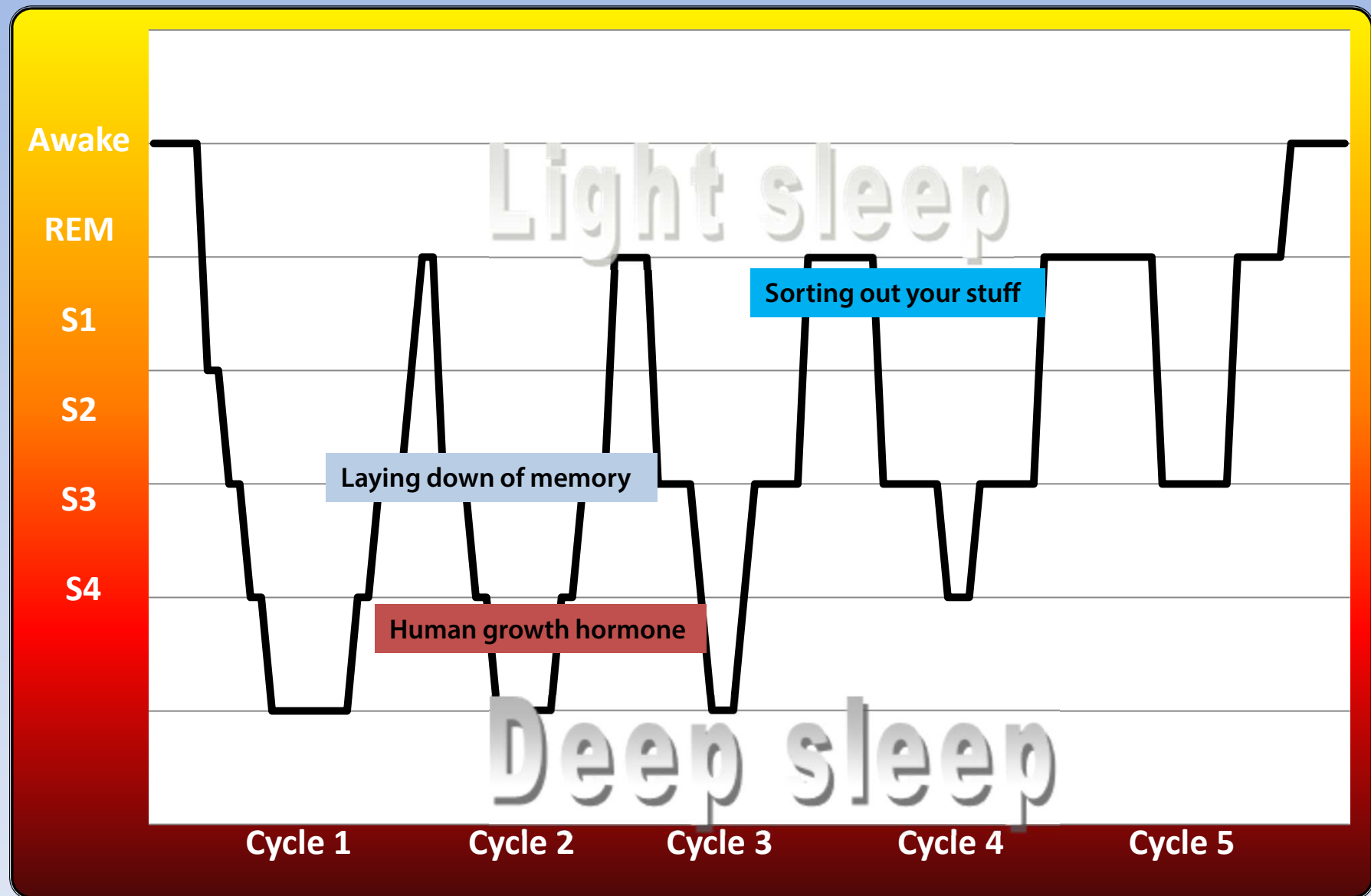
# Adenosine build up and removal







# Sleep stages & cycles across the night



# Sleep Restriction

Rosters & schedules not allowing enough time between shifts to get enough sleep

Not enough notice on start times such that employees can't plan to get the right sleep

Shiftwork – turning the circadian rhythm inside out

Sleep disorders

Sleep disturbances

“Sleep nonchalance”

# Workplace Assistance

- Use Code of Practice to better organise shifts, rosters, breaks and other important aspects of fatigue management
- Make a serious effort to be inclusive and obtain feedback from all parts of the organisation
- Get help from a fatigue content expert..

# Sleep Disorders

- There are more than 80 classified sleep disorders
- They can be put into categories such as insomnia, obstructed airways, circadian rhythm disorders and a whole range of medical-sleep related disorders..



# Sleep Disturbance

- Partners
- Babies
- Children
- External noises



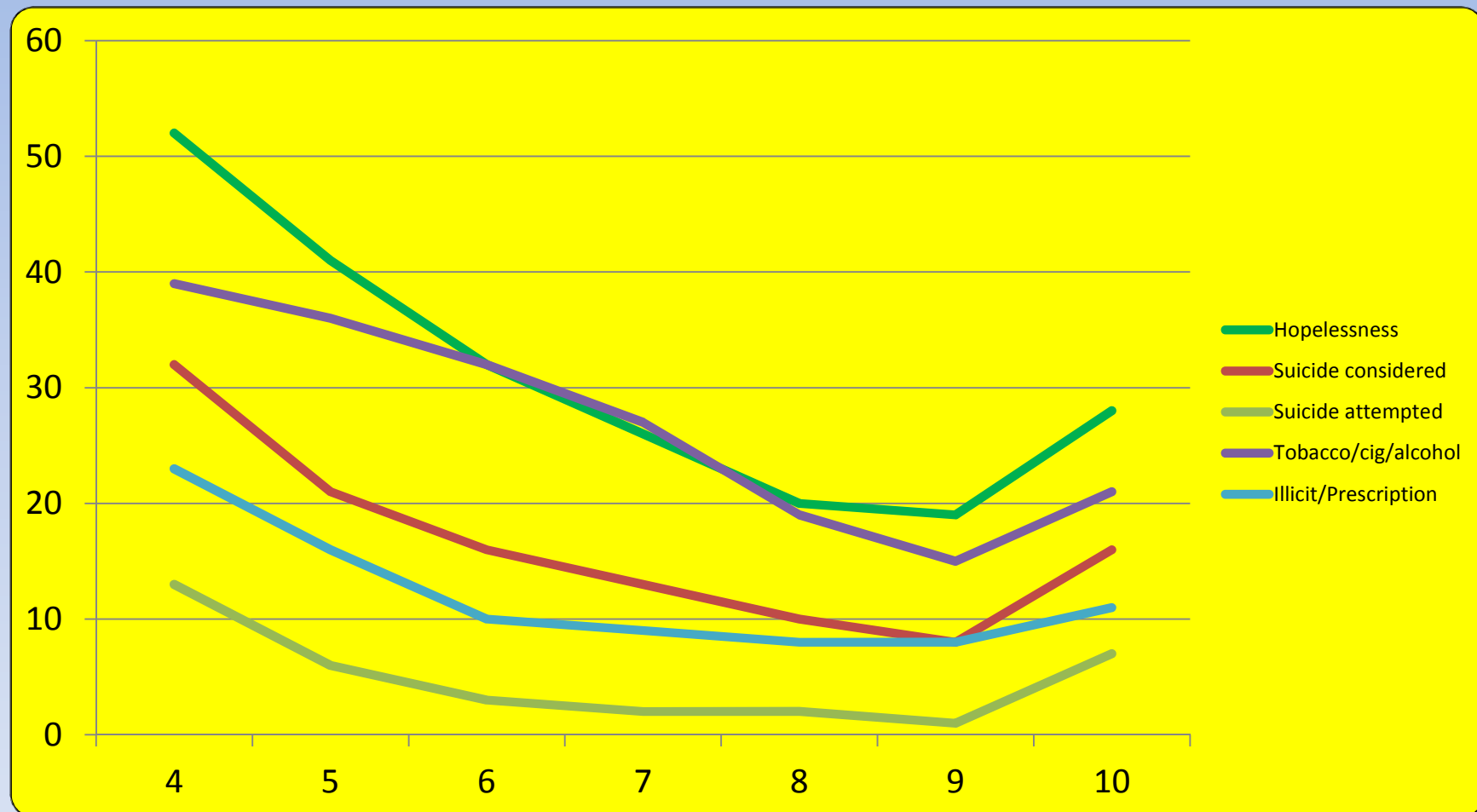
# Sleep Restriction Effects on Mental Health

---

- Mood effects from one short sleep
- Depression and anxiety from reduced sleep over time
- Many research articles suggest that children who do not obtain adequate sleep exhibit ADHD-type behaviours..



# Teens, Sleep & Mental Health



# Sleep Restriction Effects on Physical Health

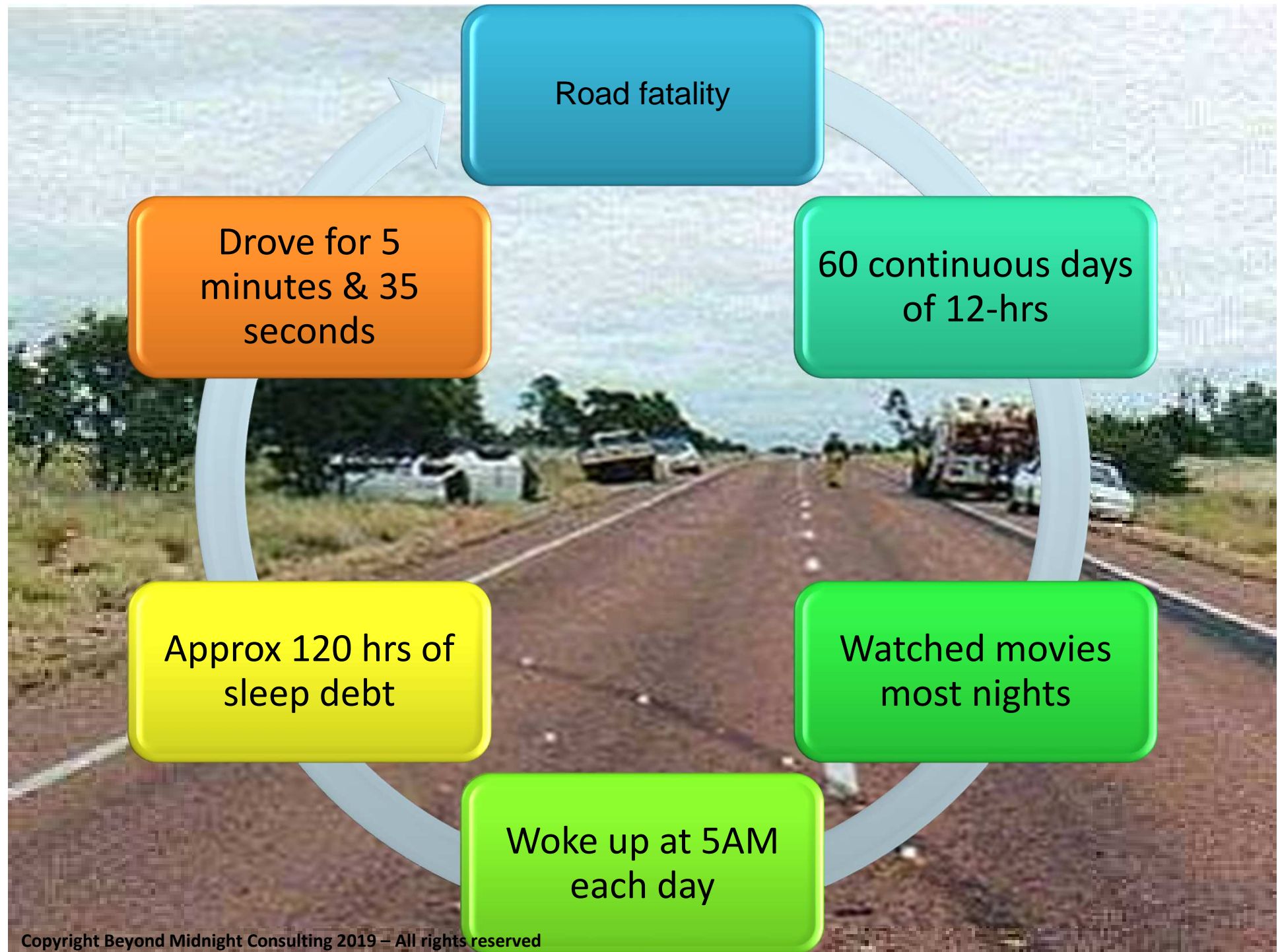
- Mortality
- Immunocompetence - the conversion of immunisation antibodies
- Type II Diabetes..

# Sleep and Safety / Productivity

---







# Empty Field Myopia

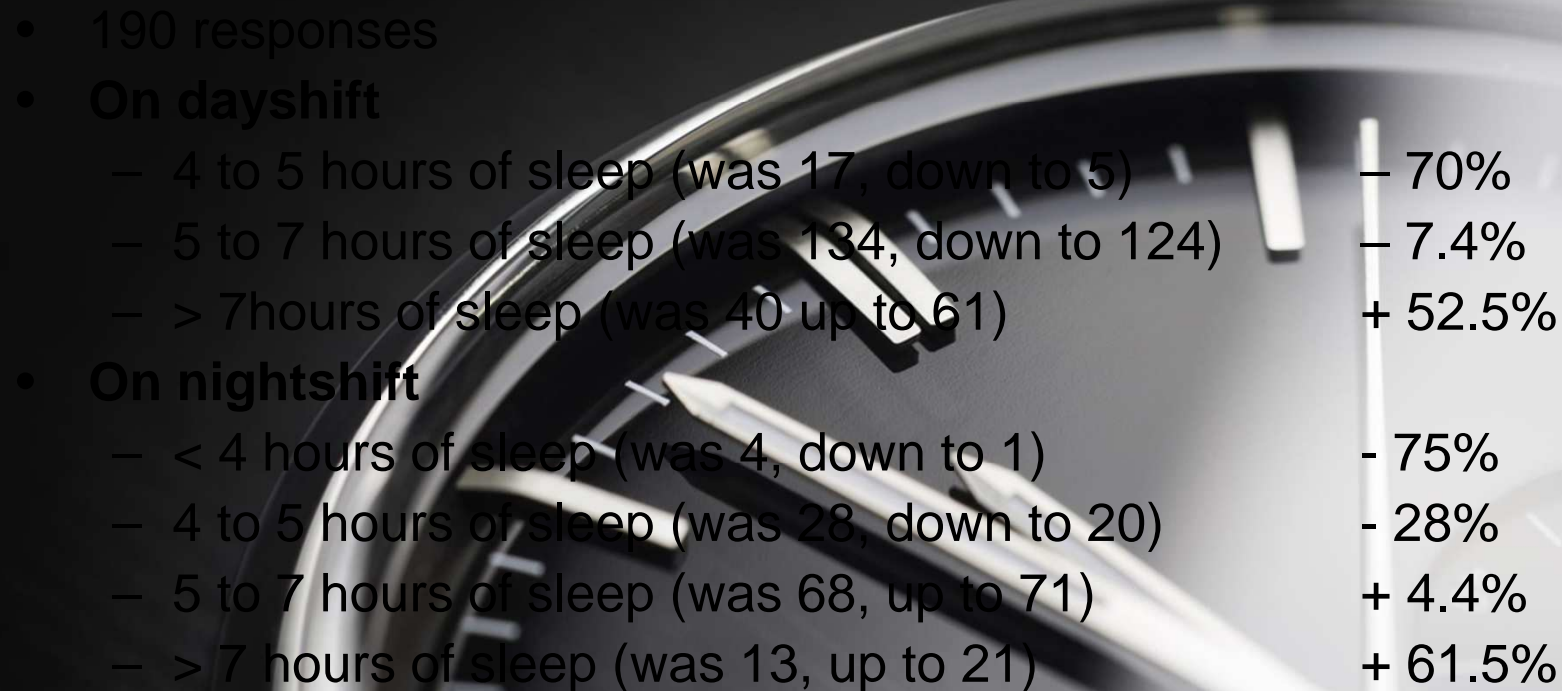


# Micro Sleep



4:24 PM  
11. JAN. 2002

# Changes in sleep length from pre- to post-training

- 
- 190 responses
  - **On dayshift**
    - 4 to 5 hours of sleep (was 17, down to 5) – 70%
    - 5 to 7 hours of sleep (was 134, down to 124) – 7.4%
    - > 7 hours of sleep (was 40 up to 61) + 52.5%
  - **On nightshift**
    - < 4 hours of sleep (was 4, down to 1) - 75%
    - 4 to 5 hours of sleep (was 28, down to 20) - 28%
    - 5 to 7 hours of sleep (was 68, up to 71) + 4.4%
    - > 7 hours of sleep (was 13, up to 21) + 61.5%

# Summary

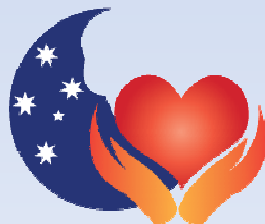
- Sleep debt can easily be accumulated – and there are several reasons for this
- We need to remember the homeostatic balance required for sleep and wakefulness – pay back a sleep debt
- Sleep restriction will make you less safe, and less productive
- The right amount of sleep will increase your health & wellness and your productivity..



# Thank You

Face-to-Face & Online Fatigue Risk Management Training

[www.beyondmidnight.org](http://www.beyondmidnight.org)



Beyond Midnight  
Consulting