

Sleep... Your Silent Super Power!

NZDF Health Month 2024

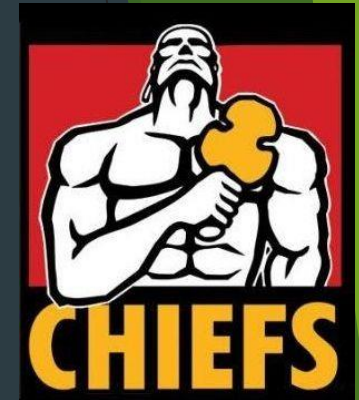


Dr (Maj) David Edgar PhD

Introduction



Background



New Zealand Defence Force

- Human performance Cell
- Physical Performance Squadron (PTIs)
- STG & AOS Performance Monitoring



Sleep

A photograph of a man lying in bed, looking awake and stressed. A clock is visible in the foreground, suggesting a long night or early morning. The image is overlaid with a blue tint and a white border.

**Up to 60% of the
worlds population
sleep poorly
or suffer from sleep
deprivation**

Sleep?

► What we do know

Better sleep (Optimal sleep) = Enhanced Physical Performance

Better sleep (Optimal sleep) = Enhanced Cognitive Function

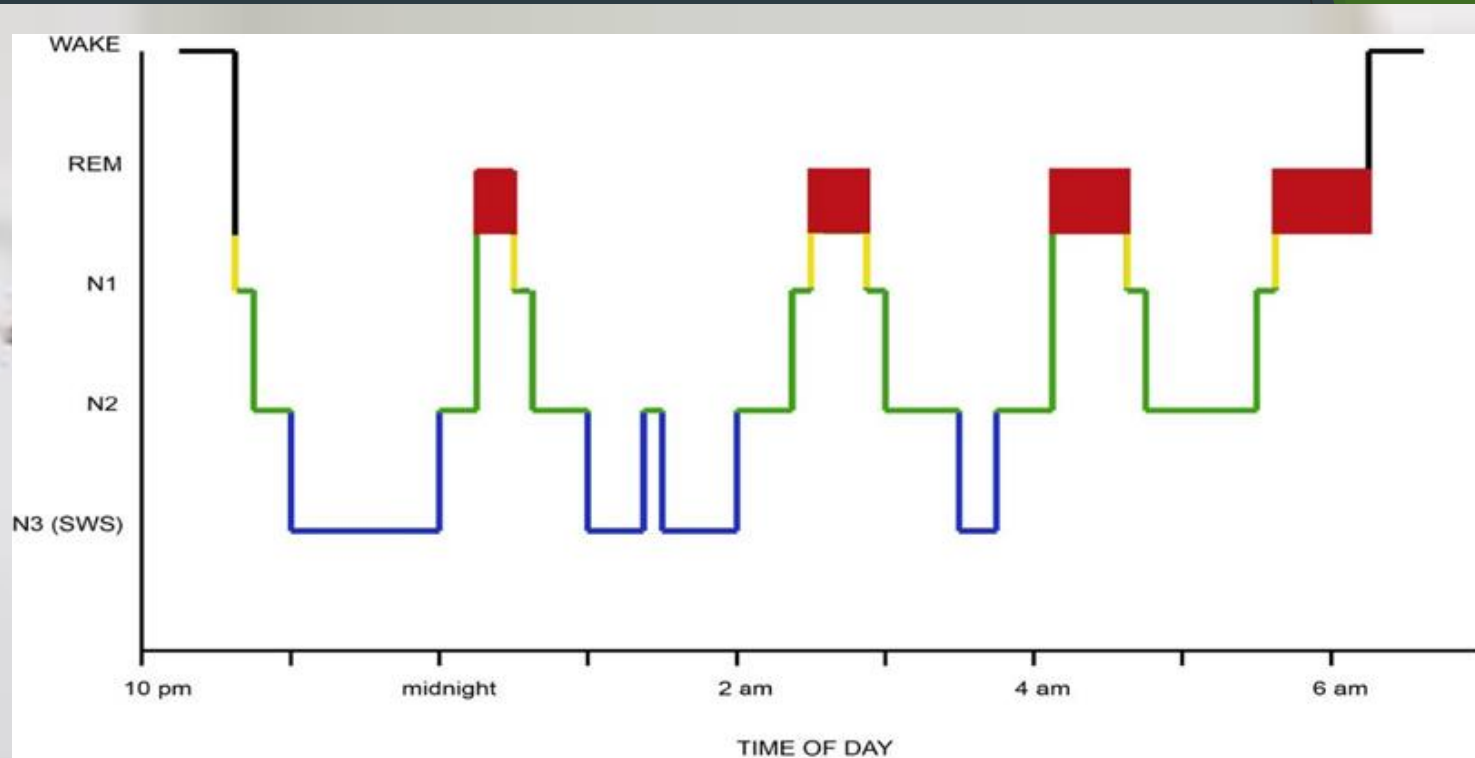
Improved Health and Wellbeing!





Sleep is FREE!

What is Sleep?



The human sleep cycle (Carskadon & Dement, 2005). WAKE; indicated being awake, REM; represents rapid eye movement, N1; sleep stage one, N2 sleep stage two, N3 (SWS); represents sleep stage three, slow wave sleep.

‘Six Top Tips For Sleep’

Stuff article (Sleep Research in the Military)



SLEEP HYGIENE



PUT YOUR MOBILE AWAY AND
SET AN ALARM CLOCK



YOU NEED ABSOLUTE DARKNESS
AND QUIETNESS



READ A BOOK INSTEAD OF
WATCHING A TV SHOW



ESTABLISH A PRE-BEDTIME
RITUAL FOR YOURSELF



KEEP THE TEMPERATURE
COMFORTABLY COOL



USE A HUMIDIFIER
TO MOISTURIZE THE AIR

Two: Reduce bright light

- ▶ Lounge
- ▶ Kitchen
- ▶ Hallways
- ▶ Bedroom



- ▶ **Suppression of melatonin!**
- ▶ **ESSENTIAL SLEEP HORMONE!**

Three: Get off Devices



Four: Reduce artificial light in the bedroom

- ▶ Drapes
- ▶ Clocks
- ▶ Phones
- ▶ TVs
- ▶ Hair drier



Five: Keep the bedroom cool

- ▶ Body temp at night
- ▶ Sleep better cool
- ▶ Fresh air
- ▶ Fans
- ▶ Natural airflow
- ▶ Layers on the bed



Six: Reduce Caffeine from 12pm (Lunch)

- ▶ Coffee
- ▶ Energy drinks
- ▶ Neural stimulation
- ▶ Melatonin suppression
- ▶ Dehydration



What if you wake in the night?

- ▶ Wait 4-5min
- ▶ Get-up, Re-set
- ▶ Write some notes
- ▶ Write a list
- ▶ Read a book
- ▶ Warm milk drink



12hr+ Shifts

- ▶ Plan and prep ahead
- ▶ Plan your meals & hydration
- ▶ Stretch and mobility
- ▶ Have family, kids, pets, dogs and laundry planned!
- ▶ Plan some recovery: Pool, spa, massage, compression, insoles.

Shared Living

PHASE TEST

MAP READING

FIRST AID

BAYONET

- ▶ Plan ahead
- ▶ Pack your bag and clothes in another room
- ▶ Have an agreement...sleep timing / quite timings
- ▶ Create a positive sleeping environment... sleeping pod
- ▶ Think about others!!

Recovery



Shared Living

- ▶ Plan ahead
- ▶ Pack your bag and clothes in another room
- ▶ Have an agreement...sleep timing / quite timings
- ▶ Create a positive sleeping environment... sleeping pod
- ▶ Think about others!!



Recovery



Injury Prevention



Injury Prevention



Sleep/Recovery & Alcohol

- ▶ Dehydration
- ▶ Need to pee
- ▶ Metabolic stimulation
- ▶ Cut into sleep time




A background image of a water splash, with blue and white water droplets and bubbles. The text is overlaid on this background.

**1% Drop in Body Weight = 7%
Reduction in Performance and
Cognitive Function**

2% Drop = 14% Reduction ...etc

**Optimal hydration will also
support better sleep**

OPTIMAL SLEEP

- 
- ▶ Ideal 8-9hr
 - ▶ Target 8hr
 - ▶ Actual 7hr
 - ▶ Current 6-7hr
 - ▶ Sleep Deprivation: **6hr per night**

Optimal Sleep



SLEEP



Melatonin release





Sleep is FREE!

Thank You

