### **Uncommon Sense for health & performance** 7/7 Hack your circadian rhythm

by Ollie Martin - 15th September 2022 for Nick Thomas Associates











# Objectives

- Build understanding of circadian rhythm and its importance to energy, performance, and wellbeing
- To understand how circadian rhythm impacts every aspect of life
- To identify some simple and tailored actions to improve health and performance
- 45 min, 15 Q&A, questions in comments







# **Ollie Martin**

### Human Performance Consultant

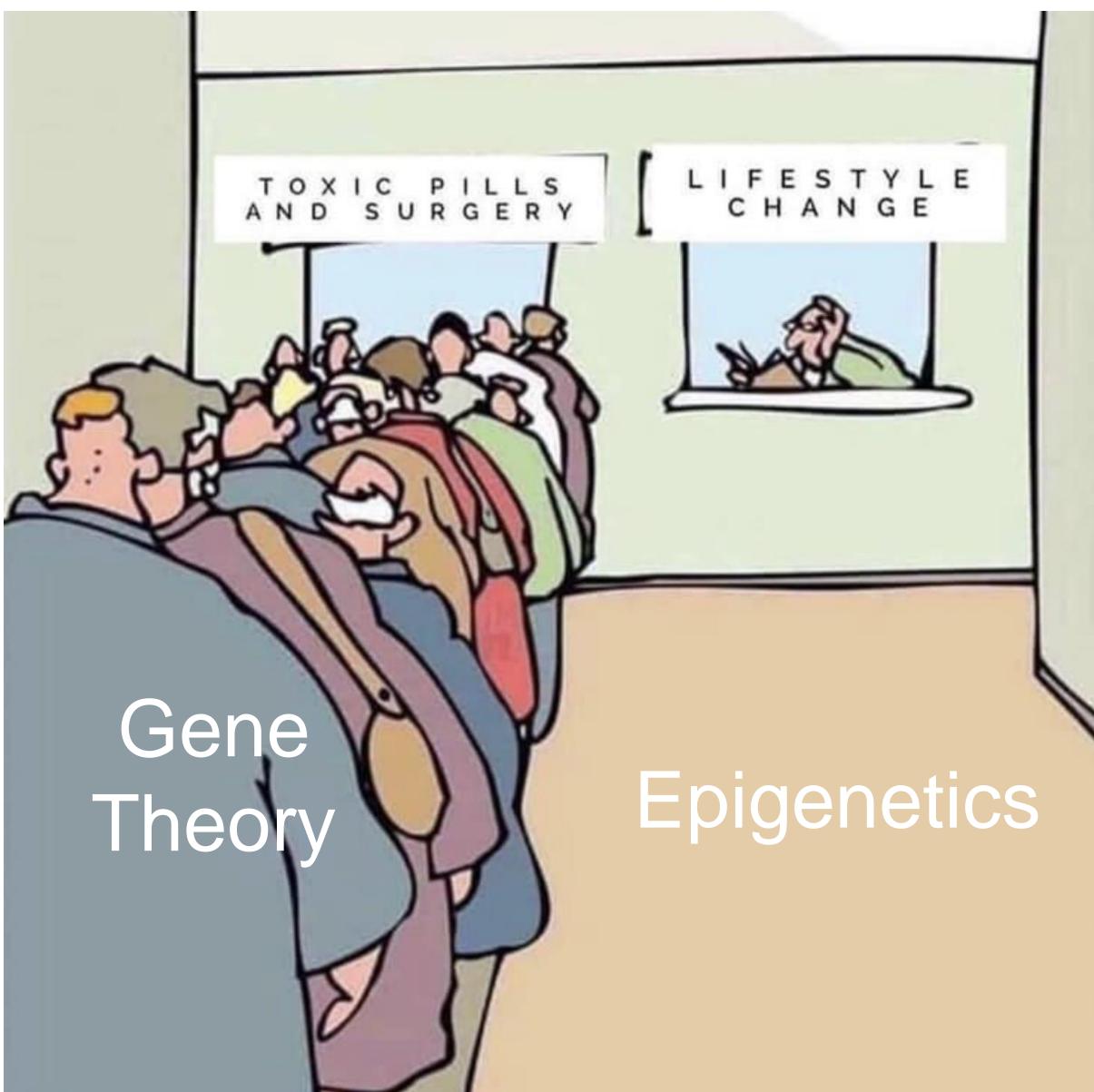
- Over 20 year health & performance coaching experience
- Background in professional sport (rugby) as both a player and management
- Author of two health & performance books
- BSc. (Hons.) Sports Science, CHEK Practitioner, American College Sports Medicine













# Normality

### versus uncommon sense

- 1.6 billion adults in the world are overweight and one in four adults (650 million) are obese
- 264 million people worldwide are chronically depressed, with Britain the fourth-largest user of antidepressants among wealthy nations
- globally
- in 1900, one person in 30 would get cancer now, it is one person in two
- nearly 10 million Britons suffer pain on a daily basis, impacting their quality of life
- half of the UK's population takes prescription drugs UK pharmaceutical sales in 2017 were £42 billion • medical error is the third leading cause of death (2016, BMJ)



• there was little or no chronic heart disease before 1920, whereas it is now the biggest cause of death



### Interconnected system of systems

- breath
- 2. thoughts
- 3. movement
- 4. food
- 5. water
- 6. sleep



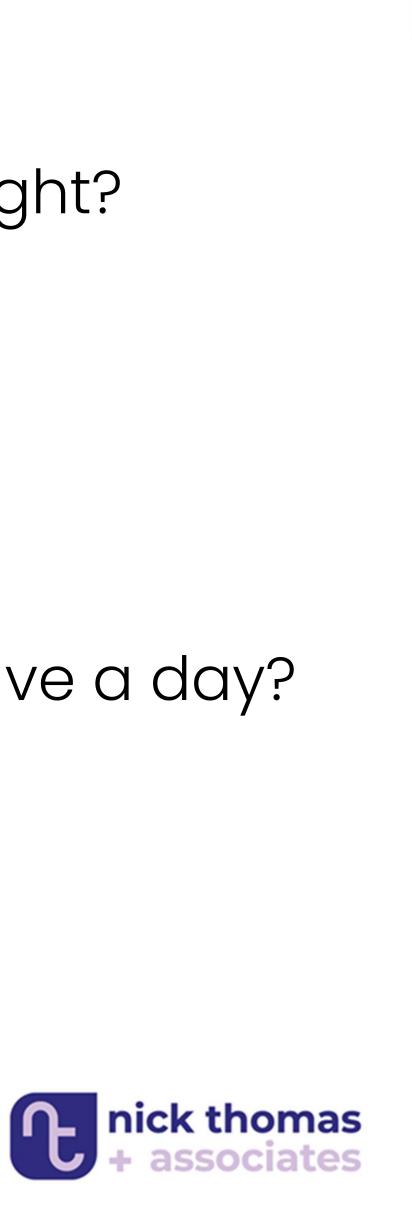




### Poll

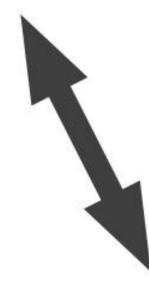
- Roughly how many hours sleep do you get on average a night? ]. 2. What time do you go to bed generally?
- 3. Is your sleep generally sound?
- 4. Do you wake up feeling rested and recovered?
- 5. How many cups of coffee/tea/caffeinated drinks do you have a day?
- 6. Do you crave carbohydrates in the day?





# **6 actions** inter-connected / holistic





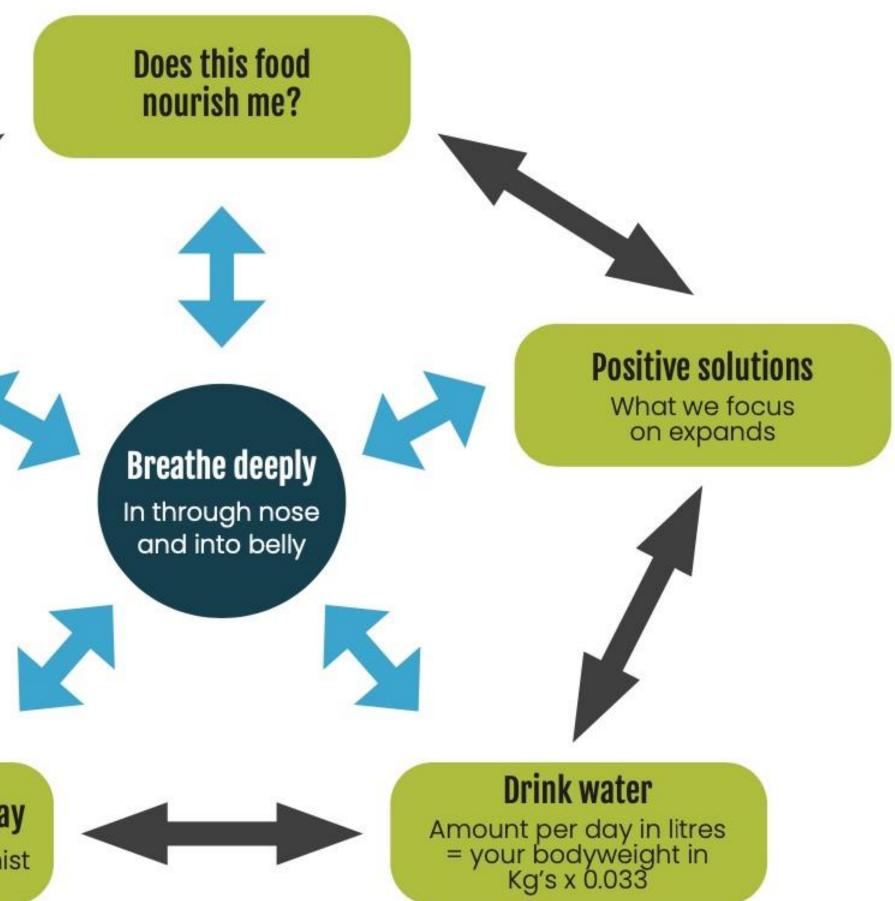
8 hours sleep a night

Bed by 10.30pm

Move your body everyday

Be an exercise opportunist







### **Autonomic Nervous System**

### Parasympathetic Nervous System (PNS) "Rest & Repair"

Regeneration Immune system **Digestion & elimination** Rational & creative brain Hormone regulation (e.g. sex and sleep hormones) Thermoregulation Blood sugar regulation



### Sympathetic Nervous System (SNS) "Fight / Flight"

STRESS - immediate action - saves lives and get things done! All blood flow / energy goes to muscles to fight or run! Instinctive brain takes over

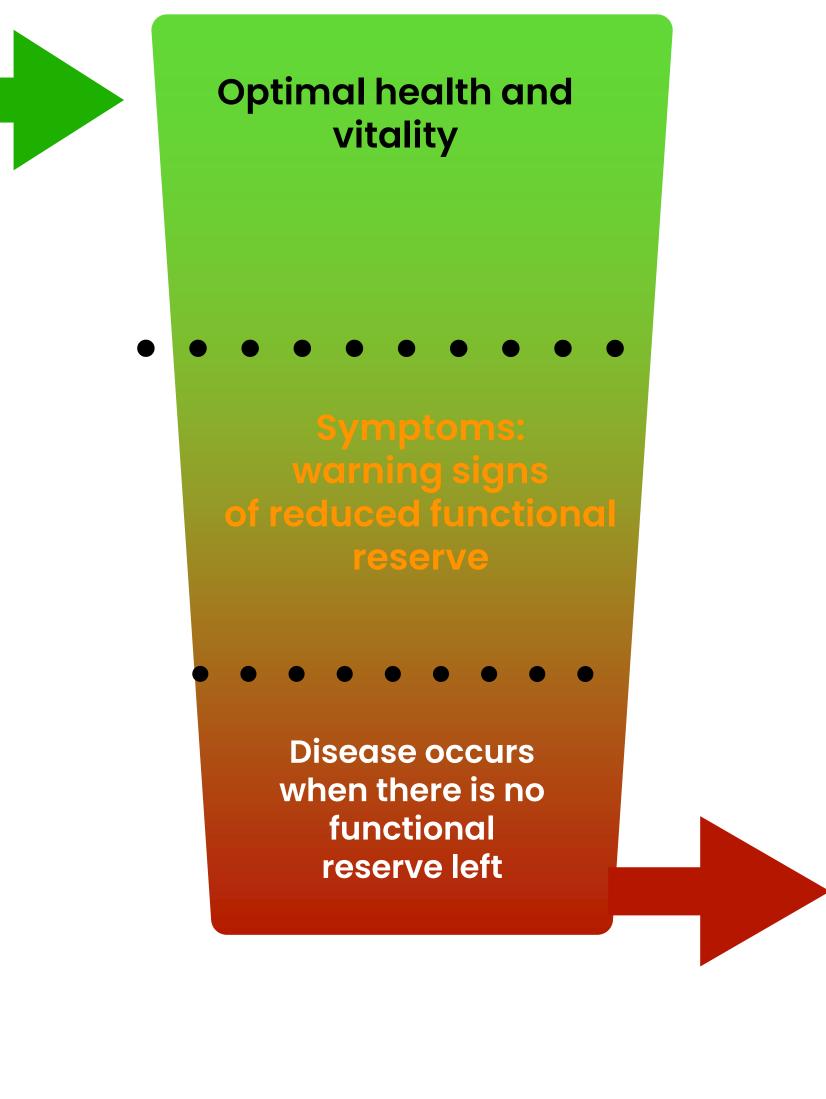
For occasional use only





### **Functional reserve**

Energy building Parasympathetic Nervous System Rest and repair Sleep Immune system Nutrition - Digestion Elimination Movement - Growth - Repair Stress outlets Meditation - Yoga - Tai Chi Happiness Social support





Symptoms: Weight gain Lethargy Poor concentration Hyperactive Depression Colds and flu Poor skin Headaches Irritability etc...

Stress - Sympathetic Nervous System Fight or flight Physical Chemical Electromagnetic Mental Nutritional Thermal





- cancer
- poor performance







### Sleep mismatch

- 100 years ago average sleep times 8-10 hours
- now average sleep time 7 hours
- extra 500 waking hours a year
- in nature 4,370 sleep hours out of 8,760 hours a year
- 80 years down to 3,395
- now we are lucky to get a measly 2,555

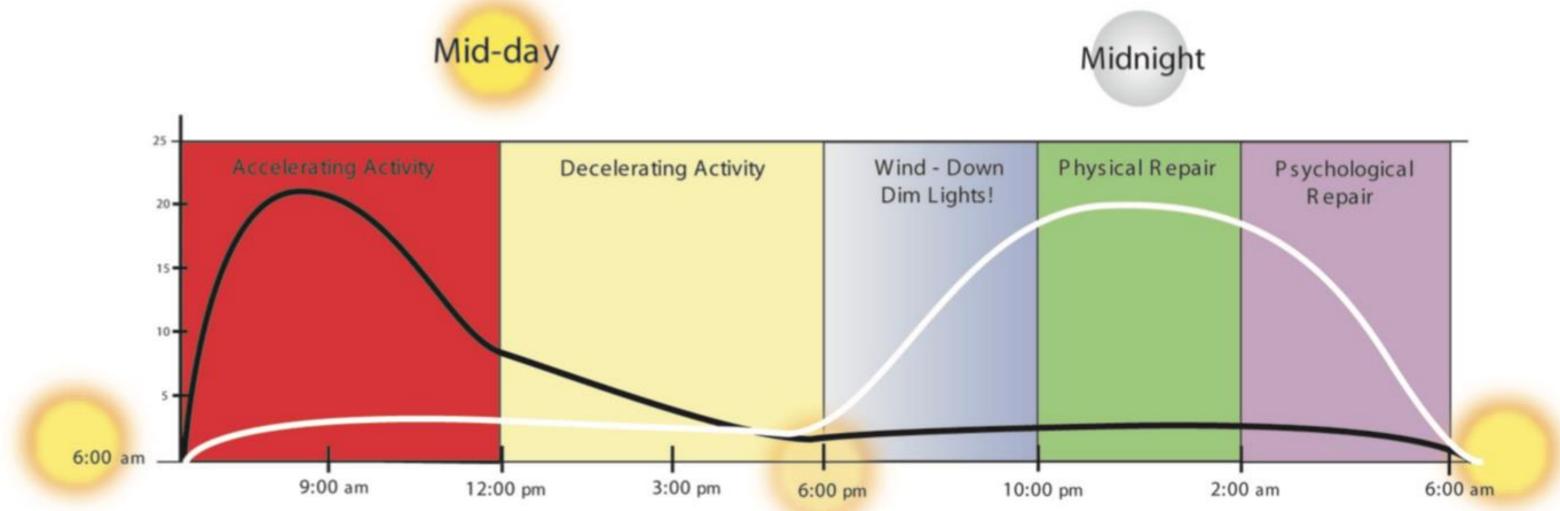


work hours - hunter/gatherer 4hrs/day - medieval serf 6-8hrs - industrial revolution factory worker 8-10 hrs - 21st century executive with 'smart' phone 12-16 hrs

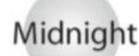


### **Circadian rhythm**

### Normal Anabolic/Catabolic Hormone Levels





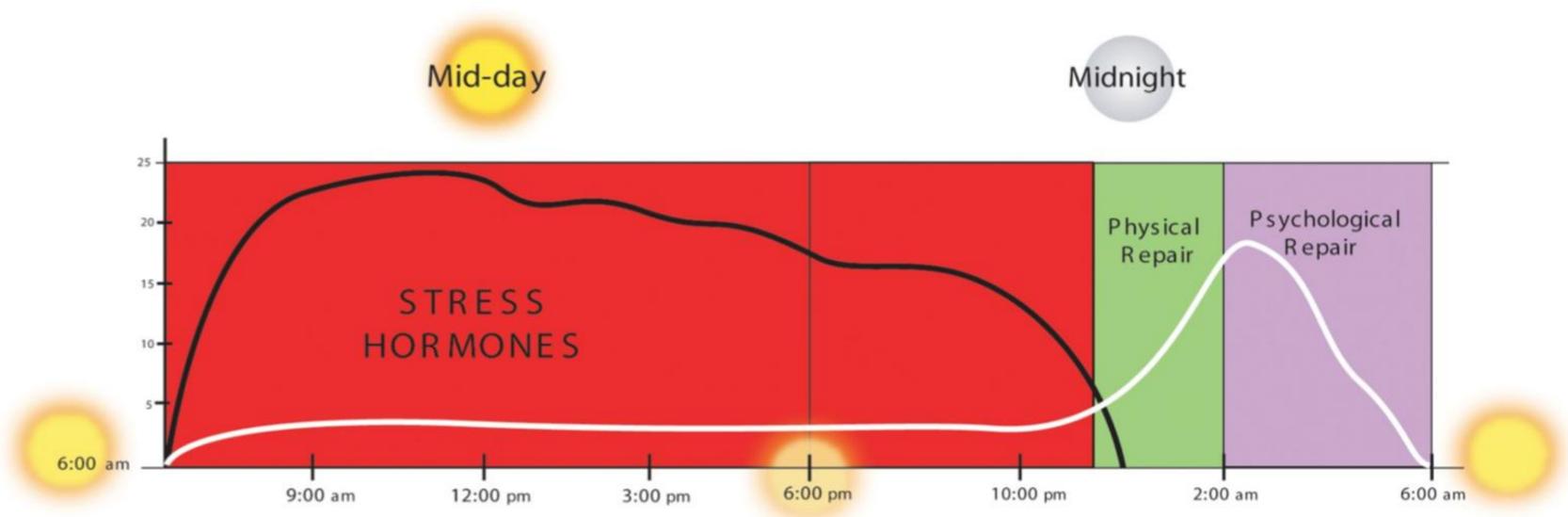






### **Circadian rhythm**

### **Exaggerated Stress Response**









### Breath

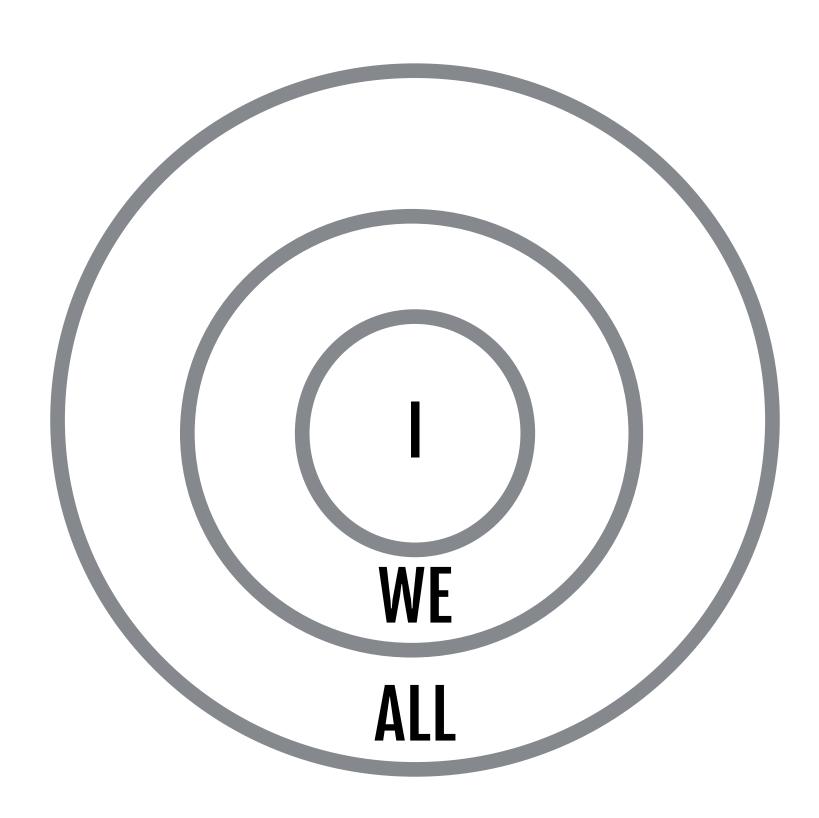
Use breath work to relax during the day reducing SNS Meditation/mindfulness 20 minute power naps Be smart with your phone







### **Thoughts** I, We, All



This understanding of yourself is a necessary first step in establishing values that are outwardly or otherwise directed. You cannot value others and you cannot give to others until you understand yourself and live by your own values first. This is why you need to start with your own personal values. All of these values give you the energy to have a 'we' (relationship) and 'all' (family/friends) life.





# Thoughts

Sleep deprivation effects the mind

Monkey mind

Permission

Notepaper by bed

Do nothing





### Movement

Supercompensation

- Timing
- Intensity

Evening - power training (HIT), PNS (under 5/10 RPE) such as EHS, Tai Chi

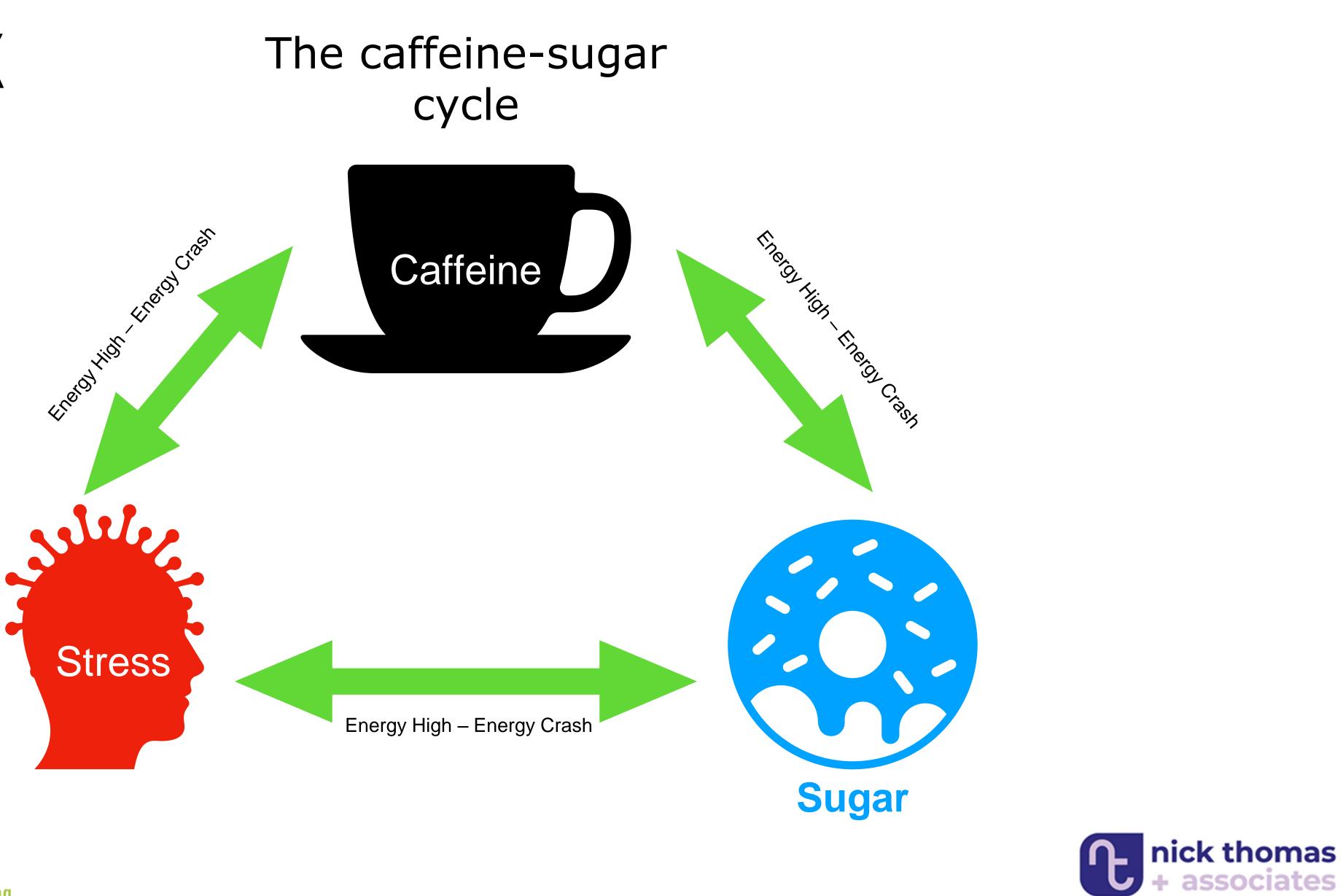
Outside - especially in the middle of the day







### Food & drink







## Food & Drink

Balance blood sugars

Lack of sleep causes carb. craving and vice versa

No caffeine after 3pm

Hydrate early in the day

Melatonin promoting foods/drink - milk, tart cherries, pistachios, fatty fish







### Sleep hygiene

- reduce cortisol (stimulation) & increase melatonin
- evening wind down routine  $\bullet$
- no screens an hour before sleep
- minimise electricals in bedroom no phones as alarm clocks!
- epsom salt baths
- candles, dim lights
- gadgets
- control noise and light in the bedroom
- ideal temperature is 19.5 degrees celsius (67 degrees F)
- bed before 10:30pm and get up at the same time everyday make changes slowly







# **Objectives revisited**

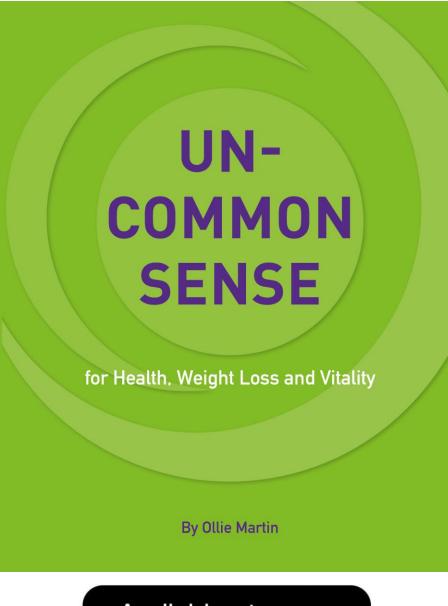
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### Find out more olliemartin.com





**Ollie Martin** 

Human Performance Consulting

### Ollie's seminar series:

- Uncommon Sense for health and performance – the six actions
- 2. Finding the right movement for you
- 3. Everyday Movement Sequence (EHS) for optimal posture, core strength and stress management
- Live your Dream 4.
- Nutrition for energy, performance, and health 5.
- The importance of hydration for energy, 6. performance, and health
- Hack your circadian rhythm

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