

# Fortify Your Focus



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# Neuroscience 101

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## Decoding the neuroscience of peak-performance

### 5 Brain Principles



#### YOUR BRAIN MAKES COGNITIVE ASSOCIATIONS

Your brain processes 11 million bits of sensory data every single second. 10 million of these come through our eyes, our dominant sense. We need to create coherent cognitive associations to support our brain- predictable tasks, objects or behaviours that signal certain behaviours. For example, coffee in the morning, might signal that it's time to start the day. A certain playlist, only played at the end of the day, may signal that the workday is complete and you can translation to your personal life.



#### YOUR BRAIN CANNOT MULTI-TASK

Multi-tasking, which has become a norm in our distributed workplaces, stresses the brain. Many of us now sit in Teams meetings while also triaging our inboxes. When we multi-task, our brain burns through glucose – the brain's energy supply – and releases cortisol, the stress hormone. Think of how frequently you multi-task, and consider the stress this is placing on your brain and body. We also recall fewer details when we muti-task as our brains don't send information to the memory centre, our hippocampus.



#### YOUR BRAIN HAS ULTRADIAN RHYTHMS

One of the distinct biological markers we have as humans is our ultradian rhythm. This means our energy goes through peaks and troughs roughly every 90 minutes. This rhythm consists of measurable physiological patterns that our body maintains both day and night to manage the cycles of energy production and recovery. It is like a micro-version of our circadian rhythm (our 24-hour sleep-and-wake cycle), but much shorter and occurring multiple times each day. Like our circadian rhythm, if disrupted or ignored, our ultradian rhythm can really mess with our health and performance.



#### YOUR BRAIN NEEDS TO REST

We are not machines. We're not designed to keep working and working, without taking adequate rest. Research tells us that peak-performance requires cycles of rest and recovery. We're biologically incapable of working for long stretches of time without periods of rest. We need to adhere to our ultradian trough and take regular piccolo breaks each day (2-10 minute breaks interspersed throughout our days).



#### YOUR THINKING BRAIN ONLY HAS A 4-6 HOUR BATTERY LIFE/DAY

Working longer hours doesn't lead to higher impact; in fact, working long hours can impair performance. The prefrontal cortex – the part of our brain that helps with problem-solving, complex thinking and working memory – is prone to fatigue. It only has a maximum battery life of approximately six hours per day (not 12 hours, as many of us try to do). We cannot expect that we can work for continuous stretches of time without adequate rest periods; that's working against our biology.



Establish  
digital borders  
and boundaries



Adopt  
neuro-productivity  
principles



Disable  
digital  
distractions



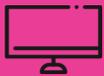
Unplug  
for rest and  
recovery

# Focus= Super-skill

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You need to build a fortress around your focus.

## WHY FOCUS IS THE SUPER-SKILL OF 21st CENTURY



Research tells us that the average knowledge worker now has a 6 minute attention span! Learning how to focus and manage your attention in a digital world that's designed to hijack and hold your attention is a super-skill. Being able to focus boosts not only your productivity but also your wellbeing. It takes the average adult 23 minutes to reorient their attention after a distraction (resumption lag). If we cannot orient, direct and control our attention, we'll get lost in the digital world that's been engineered to distract us. Managing your focus means you control where and when you spend your time and attention.

## WHAT DISTRACTS US?

There are three broad categories of distractions:

1. People
2. Thoughts
3. Digital



Why do our devices distract us?

- // technology caters for our 3 basic psychological needs (connection, competence & control);
- // causes neurobiological changes (dopamine, adrenaline, activate our stress response); and
- // uses a range of persuasive design techniques to make them hard to resist (alerts, notifications, metrics, rewards).

## MULTI-TASKING MYTH



There are switch costs associated with multi-tasking. Even though we think we're multi-tasking, we're actually engaging in 'continuous partial attention' and leaving behind 'attention residue'. Multi-tasking burns through glucose (energy), releases cortisol (stress hormone) and sends information to the wrong part of the brain (it bypasses the hippocampus which is the memory centre). Error rates are 50% and it takes 40% longer to complete tasks when we multi-task. Instead, we need to mono-task.

## DIGITAL BURNOUT

One of the biggest threats to hybrid work and distributed teams is 'digital burnout'. Why? Our digital load has increased substantially in recent years thanks to advances in digital technologies (especially emails, virtual meetings & digital communication tools like Teams and Slack), we're working in ways that are incongruent with our neurobiology (multi-tasking, having constant virtual meetings, working for long stretches of time) and we've perpetuated an 'always on' culture, where employees feel they need to be seen to be instantly responsive to emails and messages, as they see this as a marker of productivity. Digital burnout is fatigue, frustration, or apathy resulting from prolonged stress, overwork, or intense activity from overuse of digital devices. Digital burnout can result from excessive or unsustainable digital habits.

This is why it's imperative that teams establish their digital guardrails- explicitly stating the norms, behaviours and principles around digital tool usage and hybrid habits. Take Dr Kristy's [Digital Burnout Barometer Assessment](#).

# BRAIN-BASED FOCUS PROTOCOLS

## 1. Power-Up & Down Rituals

Your brain makes cognitive associations based on the sensory data it receives. Remember, your brain is processing 11 million bits of sensory data/second. 10 million bits come through your eyes alone. You need to create predictable signals so your brain knows it's time to focus. We call these 'congruent cognitive associations'

### Micro-Habit Menu



Set it up right

MICRO-HABIT 1

- Morning sunlight
- Cold showers
- Rapid breathing
- Work playlist
- Predictable tasks to signal start of the day

## *Digital Wellbeing Cards*

We're much more likely to retain information that we've read off-screen, than on. I've published a set of 60 cards containing a range of micro-habits that people can apply to their professional and/or personal lives to bolster their physical health, mental wellbeing and attention span, in the always-on digital world we're in. More information can be found [here](#).



# BRAIN-BASED FOCUS PROTOCOLS

## 1. Power-Up & Down Rituals

### Micro-Habit Menu



#### MICRO-HABIT 1

#### Close down the day

- Set aside time to wrap up and plan
- Close open loops
- Plan for tomorrow
- Specify your success



#### MICRO-HABIT 2

#### Create digital depots

- Have a phone basket or drawer
- Have a device landing zone



#### MICRO-HABIT 3

#### Have screen sabbaticals

- Have a tech sabbath
- Cut it down, don't cut it out
- Capture moments to your personal hard drive
- Use tech tools
- Go for a walk without headphones
- Communicate your tech-spectations



#### MICRO-HABIT 4

#### Meditate for 12 minutes per day

- Start small
- Use tech tools
- Self-directed hypnosis as an alternative
- Focus eyes on a fixed point (30 seconds- 3 minutes)

# BRAIN-BASED FOCUS PROTOCOLS

## 2. Work *with* your Human Operating System

### Micro-Habit Menu



#### MICRO-HABIT 1

Set your work schedule in 90-minute intervals (ultradian rhythm)

- Determine your cadence
- Time-block your calendar accordingly
- Schedule breaks in your calendar



#### MICRO-HABIT 2

Optimise your breaks to optimise performance

- Restoration
- Exposure to light
- Movement
- Nature
- Autonomy
- Connection



#### MICRO-HABIT 3

Work in concert with your chronotype

- Determine if you're a bear, wolf, lion or dolphin
- Devote your focus hours to your most intellectually demanding tasks
- Follow a sleep schedule that matches your chronotype's biological needs
- Set core collaboration hours

## 3. Optimise your Human Operating System

### Micro-Habit Menu



#### MICRO-HABIT 1

Sit-stand-switch

- Set a 1:1 ratio for sitting and standing
- Set a timer
- Invest in a stand-up desk (or make your own)
- Plan three or four ten-minute walks each day
- Stand up for your phone calls
- Stand-up meetings
- Incidental movement



#### MICRO-HABIT 2

Optimise your sleep

- Establish a digital curfew (60 minutes before sleep)
- Wear blue-light blocking glasses (from 4pm)
- Use non-sleep deep rest (10 minutes)
- Sacred 8- first 8 minutes tech-free
- Delay caffeine for 90 minutes



#### MICRO-HABIT 3

Wear noise-cancelling headphones

- Music to your ears
- Soft, slow and no lyrics
- Listen to binaural beats



#### MICRO-HABIT 4

Build a fortress around your focus

- Use a sign to indicate that you're doing deep work
- Wear specific clothes or a hat to signal that you're working when working from home
- Work behind a closed door
- Have open office hours
- Train people to stop interrupting you
- Wear noise-cancelling headphones while you work
- Have a communications policy



#### MICRO-HABIT 5

Take piccolo breaks

- Close your eyes
- Do exhale-emphasised breathing
- Do rapid, deliberate breathing
- Hum or sing
- Mammalian diving reflex
- Dilate your gaze
- Connect and laugh
- Drink water at your desk
- Undertake deliberate cold-exposure protocols
- Create a piccolo-break chart

# Micro-Habit Menu

Record your five-to-thrive. What are the five micro-habits you want to commit to that will better support your focus?

**Micro-Habit 1**



**Micro-Habit 2**



**Micro-Habit 3**



**Micro-Habit 4**



**Micro-Habit 5**



# Dear Digital, We need to talk...

If you want to put an end to constantly feeling stressed, overwhelmed, and distracted the best place to start is... with a good old-fashioned book. [Dear Digital, We need to talk...](#) in fact!

Dominate your digital distractions and stop screens from adding to your stress.

Learn brain-based strategies to tame your toxic tech-habits and thrive in the digital world. And no, don't worry. You don't need to cancel your Netflix subscription or take Slack off your phone. Grab your copy [here](#).



## About Dr Kristy

Having personally experienced how our always-on digital culture is compromising people's wellbeing and is counter to optimal and sustainable performance, award-winning researcher and speaker Dr Kristy Goodwin is on a mission to promote employee wellbeing and bolster workplace productivity in an always-on digital world.

As one of Australia's digital wellbeing and productivity experts, she shares practical brain-based hacks to tame tech habits and the latest evidence-based strategies to decode the neurobiology of peak performance in the technological era.

Senior business leaders and HR executives from the country's top organisations engage Dr Kristy to help them promote employee digital wellbeing and performance. Her roster of clients includes Apple, Westpac, AMP, Deloitte, Bank of Queensland, DLA Piper, Westfield, Randstad, the Reserve Bank of Australia, NSW Health, Cuscal, State Street, National Broadband Network and Foxtel.



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