# PD01: How To Become a More Productive Programmer Using LLMs (Lots of Limb Movements)

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PHUSE EU Connect
Monday 17<sup>th</sup> November 2025



### Disclaimer

- This isn't a presentation about AI.
- Please consult a medical professional before making changes to your exercise routine or diet.





### Introduction

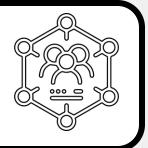


### Introduction

Productivity is one of the general measures of success in many industries.

Can we produce more SDTM, ADaM and TLF programs this week?

O 2 Can we reduce the number of programmers we need for this task?



Some of our programmers are sick this week, what do we do?!



Current approach: new processes, workflows, programming languages, etc.

Is there another option?



### The Current State of Productivity

A workday of **8 hours** 



Productive for only 3!







Took **7.8** days off work due to sickness in 2023

US Employers



### **The Current State of Productivity**

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US Employers **\$153 billion** lost due to health conditions



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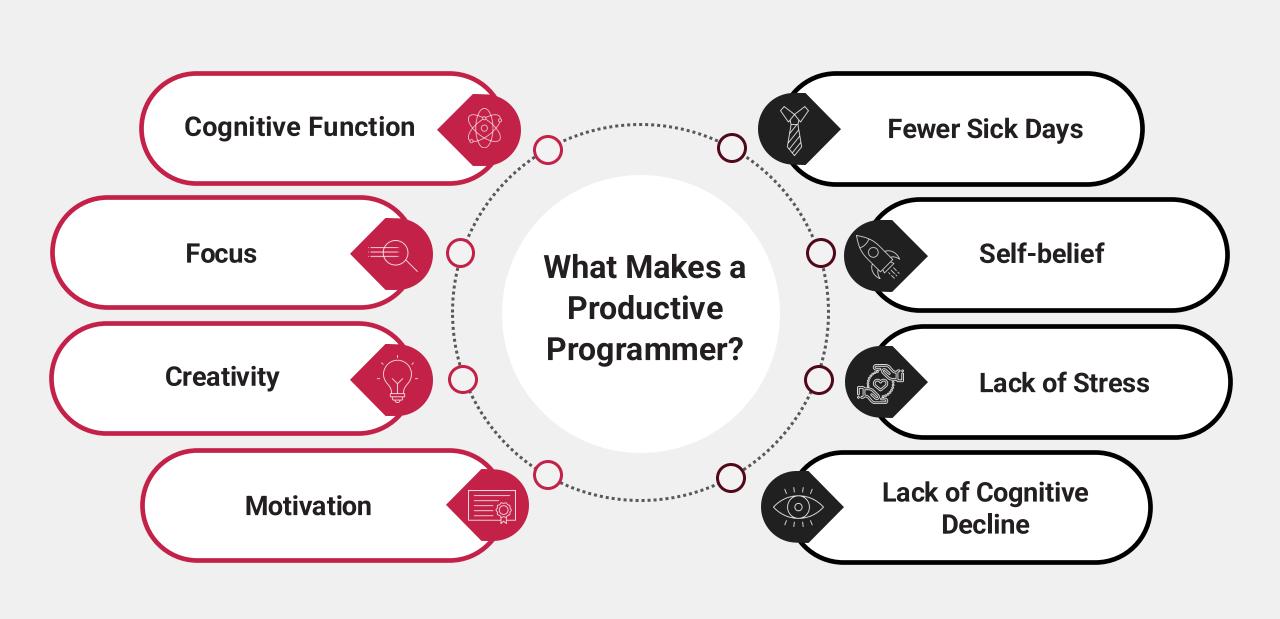


Took **7.8** days off work due to sickness in 2023

US Employers **\$153 billion** lost due to health conditions

Another **\$63 billion** due to insomnia

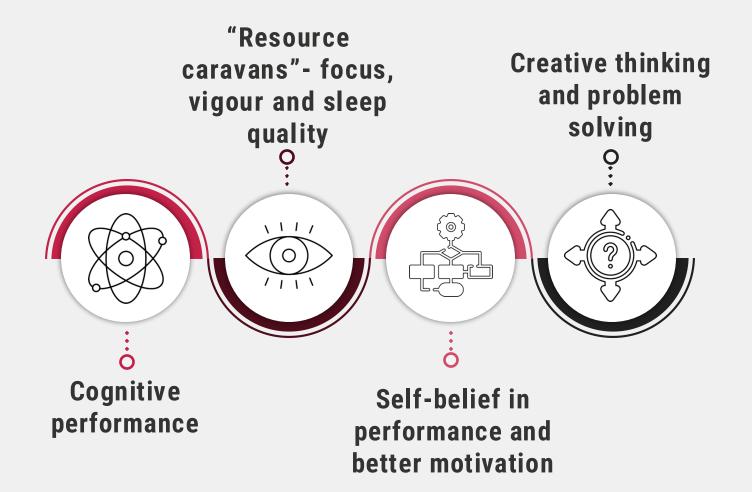




### Sleep and Exercise



### How is Exercise Linked to Productivity?



25% of UK adults exercise for less than 30 minutes per week

### What About Sleep?

**The obvious** - A lack of sleep leads to feelings of drowsiness and irritability.



#### Cognitive performance

- Memory
- Focus
- Problem solving



#### "Microsleeps"

 Episodes alternating between being awake and asleep

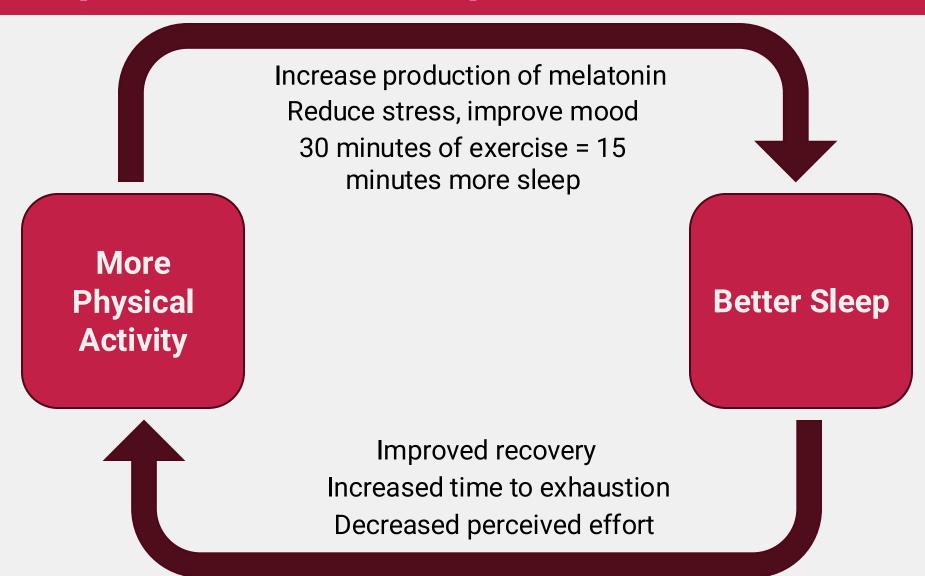
Adults in the UK

< 6 hours

**75% sleep < 8 hours** 



### The Reciprocal Relationship





### The Reciprocal Relationship

Increase production of melatonin Reduce stress, improve mood 30 minutes of exercise = 15 minutes more sleep

More Physical Activity

Improved recovery
Increased time to exhaustion
Decreased perceived effort







**Improved** 

**Productivity** 

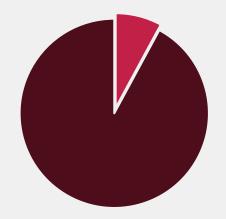
**Bett** 



## Mental and Physical Health



### **Mental Health**



Poor mental health accounted for **7.9**% of absences in the UK (2022)

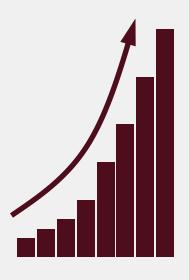
### 14 million workdays

**x4** 

16-34 workers - more likely to report work-limiting mental health conditions compared to a decade ago.



### **General Physical Wellbeing**



BMI is correlated with frequency of sickness-related absences

"normal" range: 6 days per year

"obese" range: 9.5 days per year



#### **Increases risk of:**

- Type 2 diabetes
- Heart disease
- Strokes



### **Improving Mental Health**

40%

We average **3.4 days** of poor mental health per month

Those who exercise regularly experience 40% less

**75%** 

of individuals who suffer from depression also suffer from insomnia



### **Improving Physical Health**



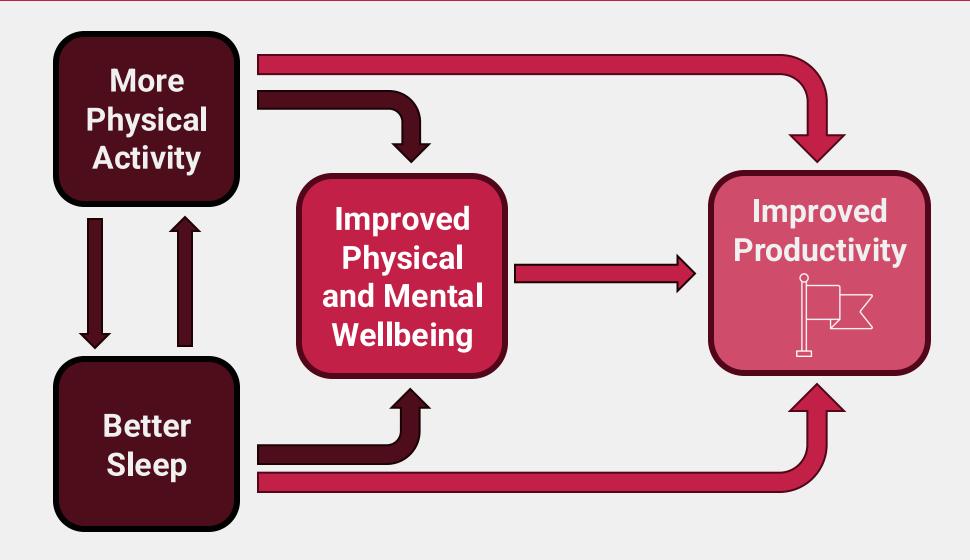
Reduced risk of conditions such as type 2 diabetes, heart disease, stroke



Regular exercise can help to lower body fat percentage



### **All Roads Lead to Productivity**





#### A Note on Diet

#### No consensus!



Higher intake of fruits and vegetables



Slower cognitive decline, improved cognitive function



Cholesterol levels increase risk of health conditions



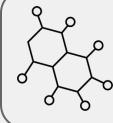
Caffeine and alcohol are "sleep disruptors"



### A Note on Diet Cont.



B vitamins aid brain function – much of the population is deficient!



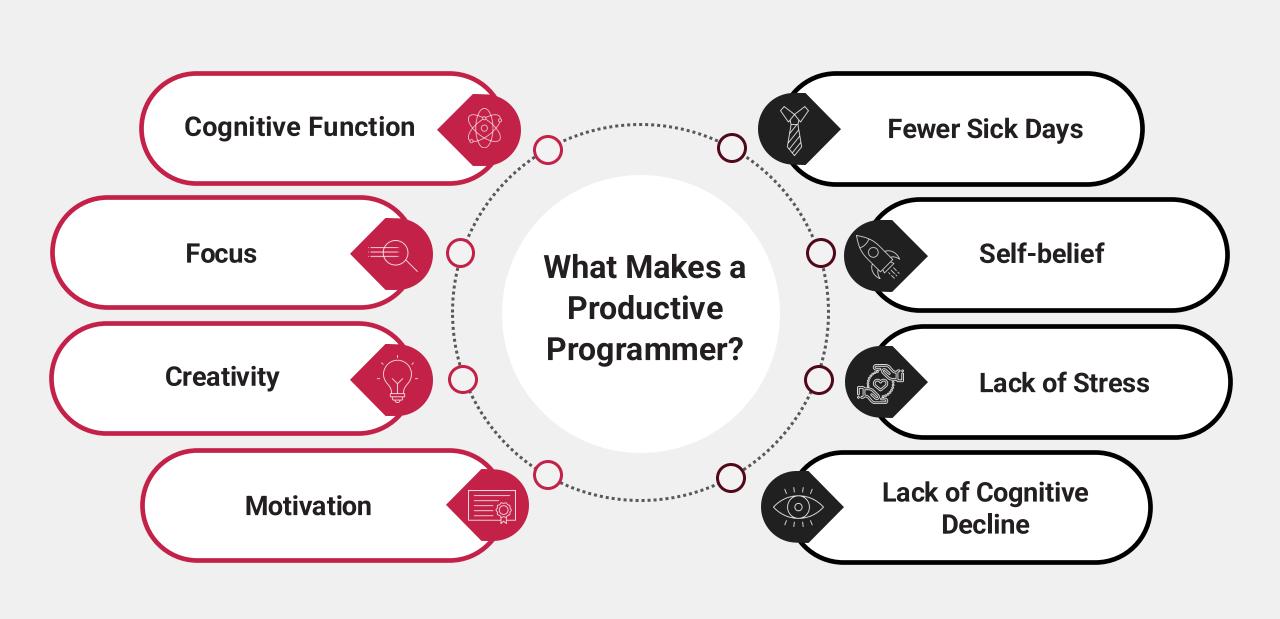
Creatine can improve memory and intelligence

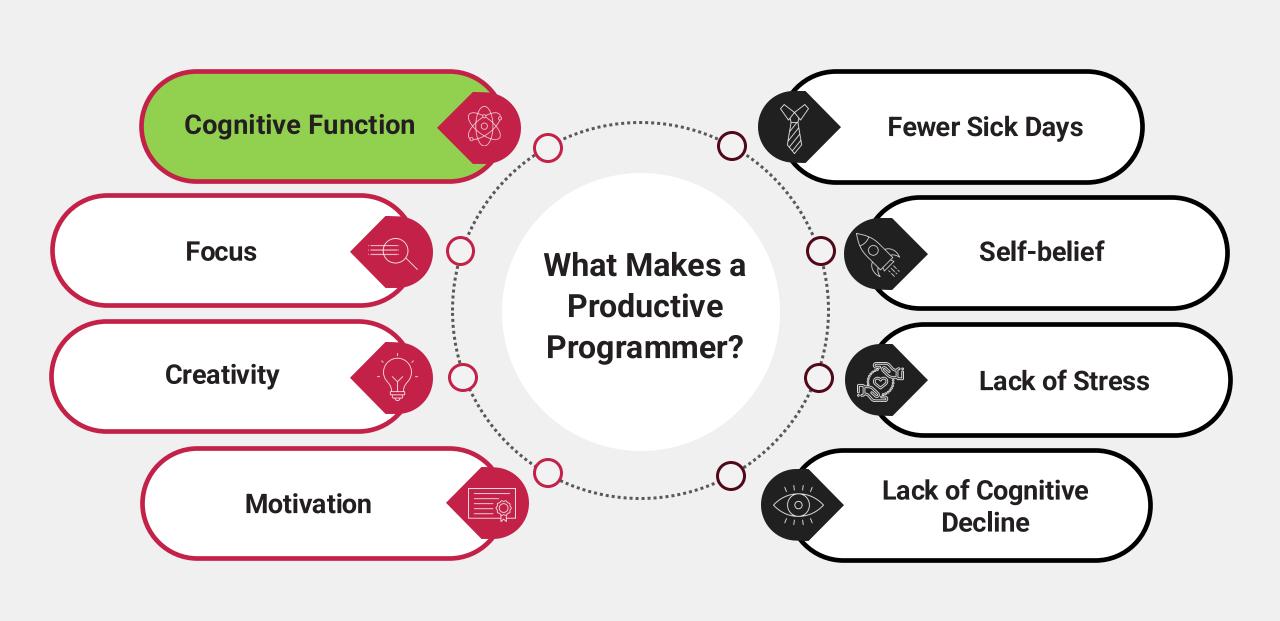


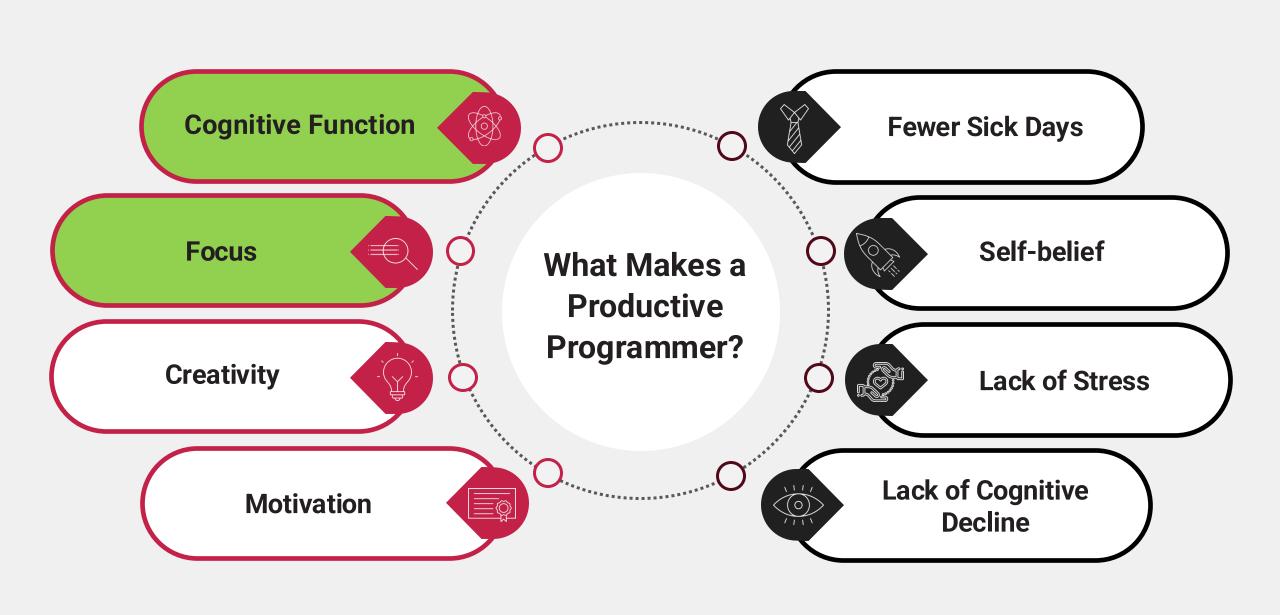


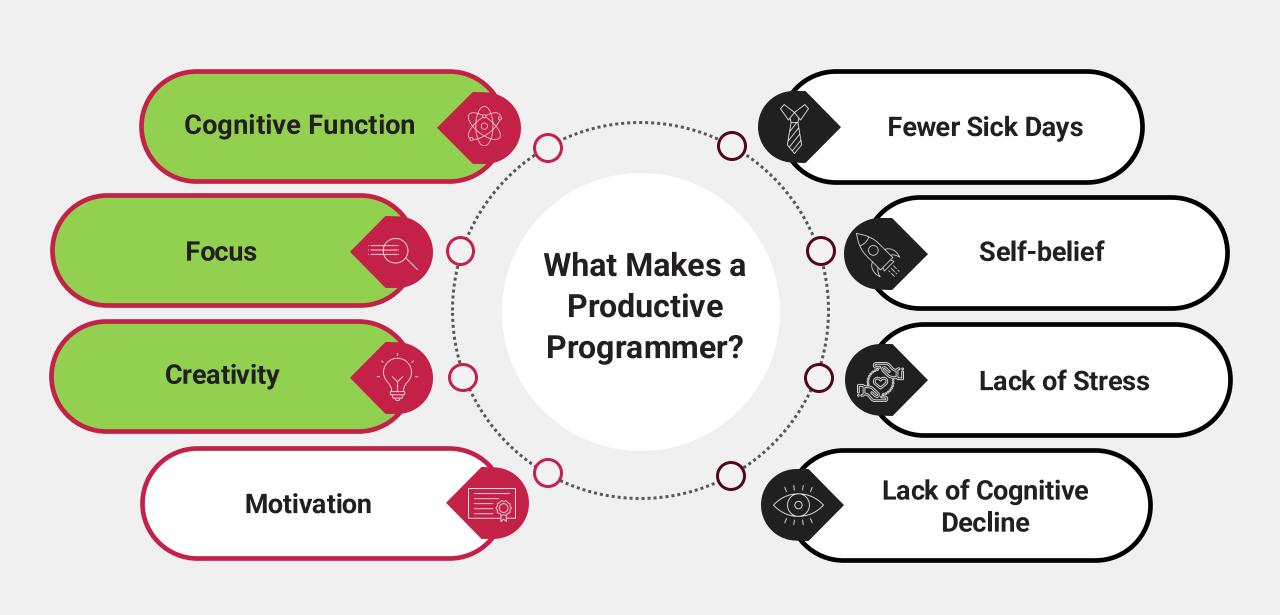
### Where Are We?

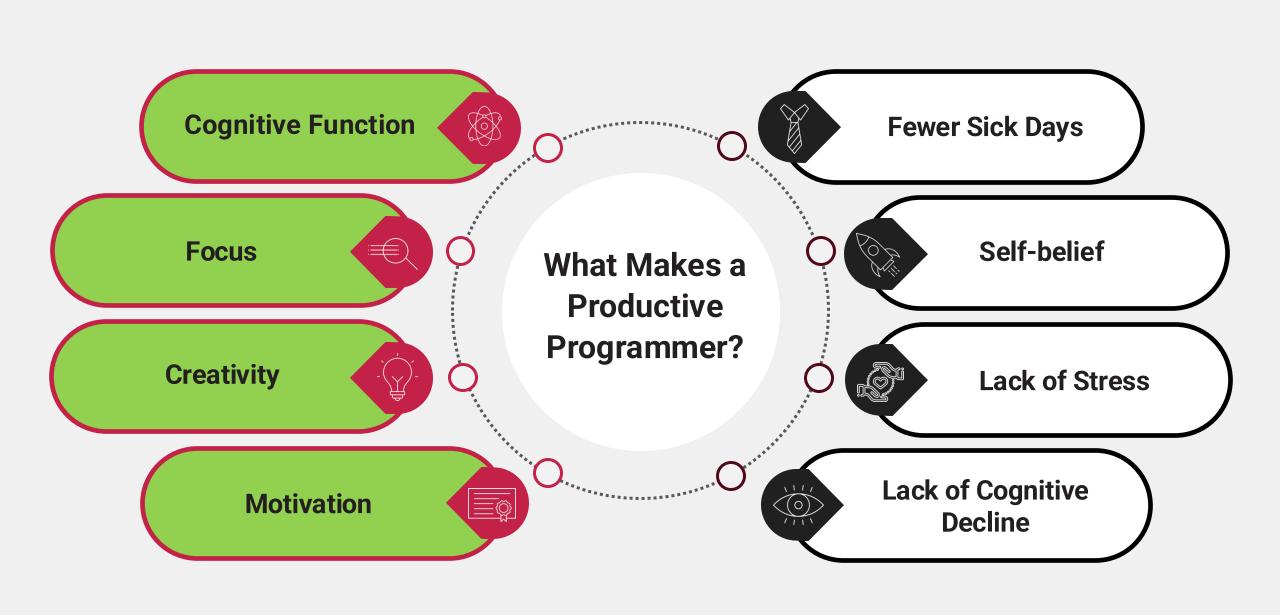


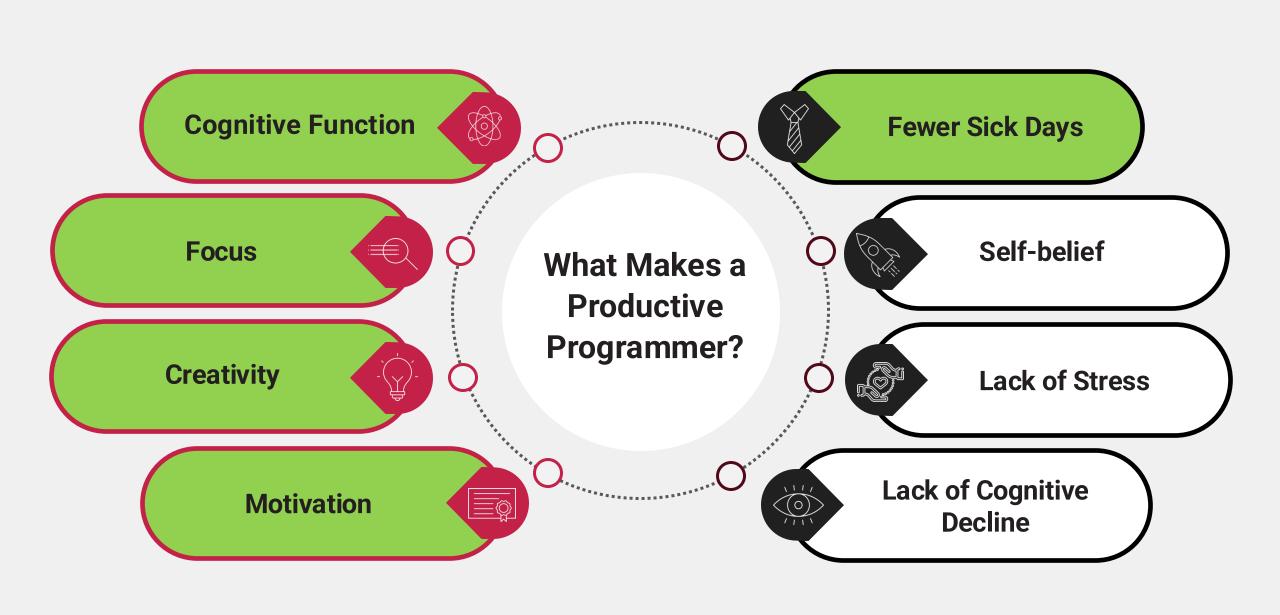


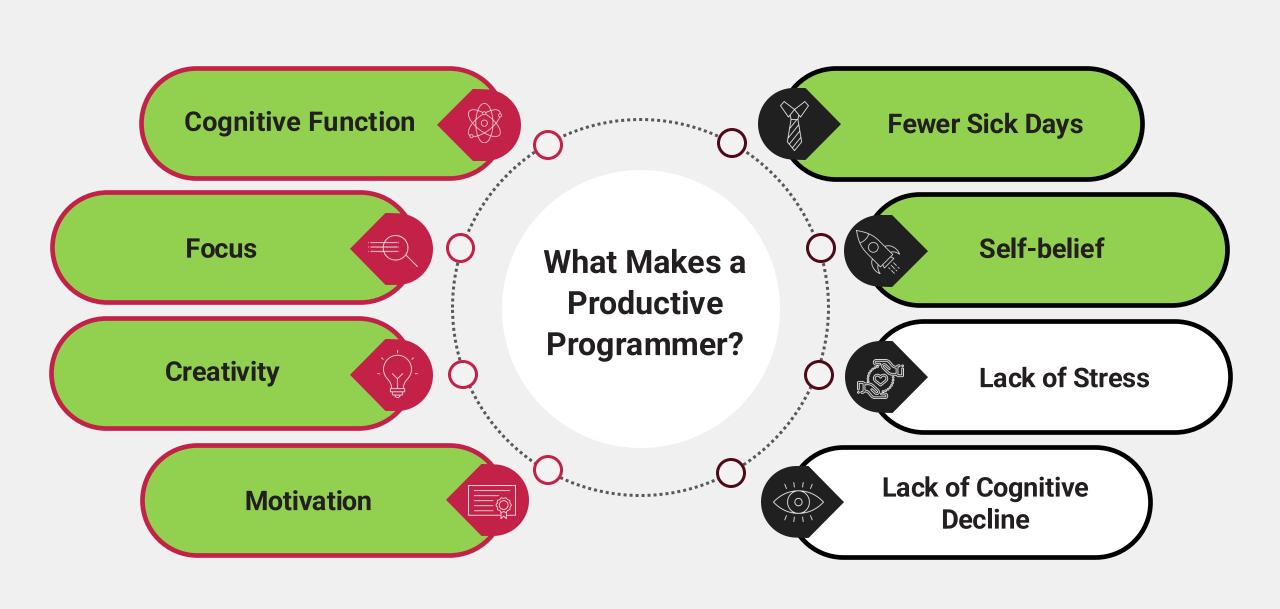


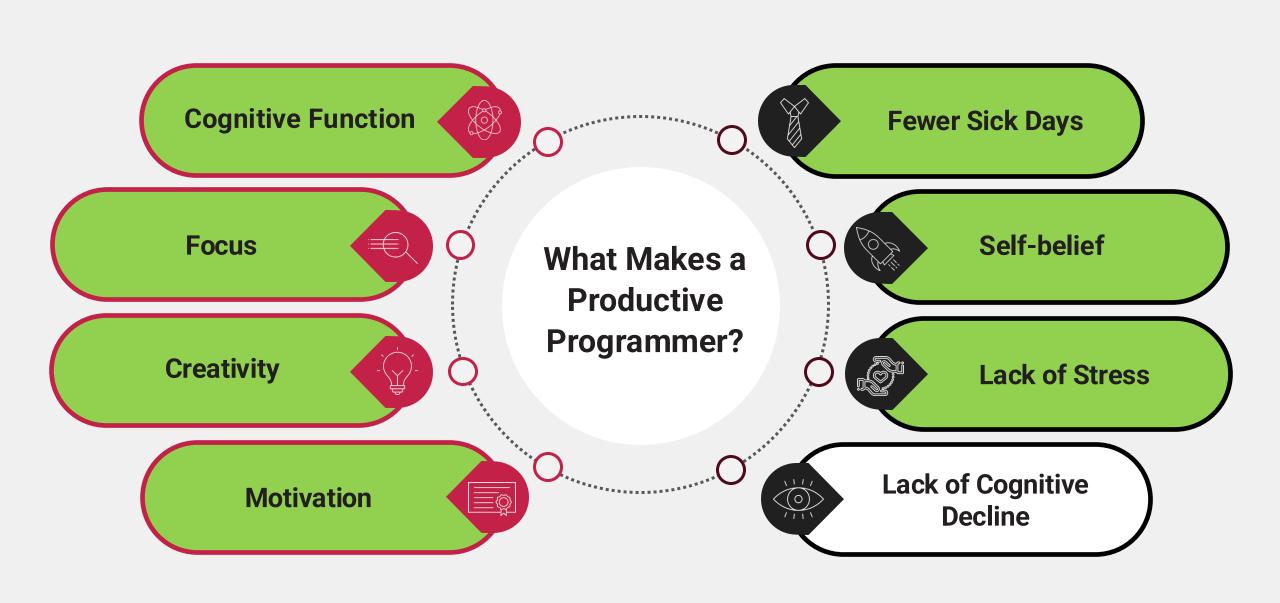


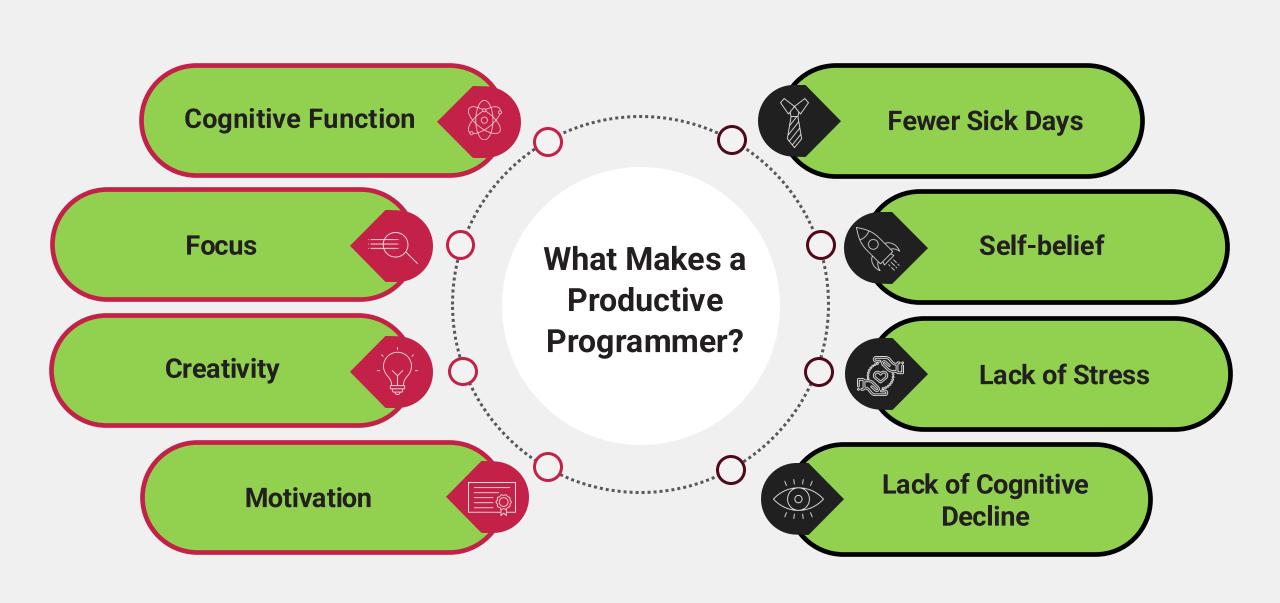














### Actions



### **How Can We Become More Active?**

### Finding The Right Activity

It should be fun and easily accessible

### Exercising With Others

The key to improved motivation and discipline

### **Balancing Intensity**

Easing in, finding the right difficulty

### Introducing Movement

Making activity a larger part of our day



### **How Can We Become More Active?**

### Introducing Movement

Making activity a larger part of our day

Walking or standing during meetings

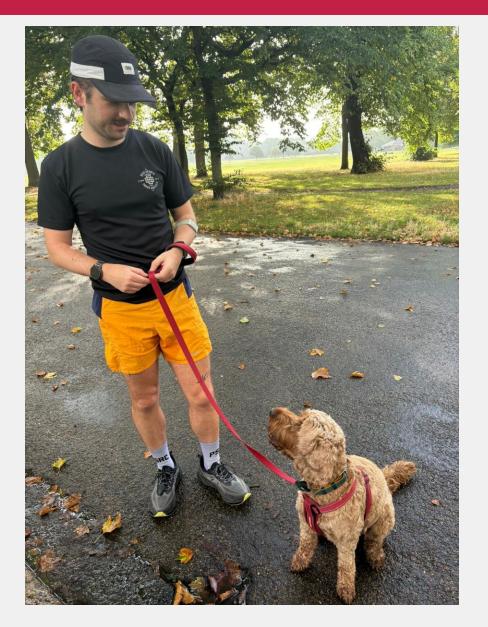
Walking or cycling for short journeys

Making walking a bigger part of our journey

Taking the stairs more often



### **Exercising With Others**





### **How Can We Sleep Better?**

#### **Taking Sleep-Encouraging Actions**

- Having a warm shower or bath
- Reading before bed
- Avoiding screens in the evening
- Blocking blue light using filters or glasses
- Creating better conditions for sleep:
  - Black-out blinds or eye-masks
  - Air conditioning, fans or opening windows
  - Ear plugs or white noise

#### **Avoid Sleep-Disruptors**

- Eating meals earlier in the evening
- Avoiding caffeine up to 6 hours before sleep
- Avoiding alcohol of any amount
- Exercising earlier in the day



### **How Can Organisations Promote Exercise?**



#### **Provide Facilities**

- On-site gyms
- Partnering with local gyms for discounted memberships
- Providing standing desks
- O Providing treadmills/walking pads

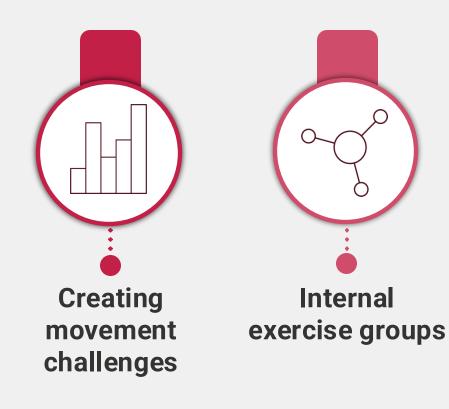


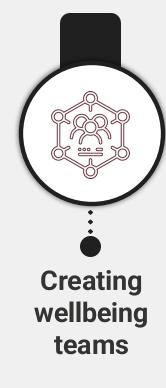
#### **Remove Barriers**

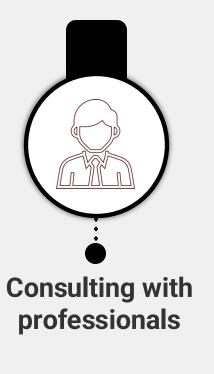
- Providing showering and changing facilities
- O Providing bicycle parking
- O Relaxing dress codes
- Allowing flexible working hours



### How Can Organisations Promote Exercise? Cont.









### How Can Organisations Help With Sleep?



Providing support for employees experiencing stress



Training line managers to support direct reports



Mental Health First Aiders



Flexible Working Hours



Discouraging late-night working hours



### Conclusion

01

Improving sleep and exercising more can improve productivity

02

Sleep and
exercise are
linked;
improving one
can help with
improving the
other

03

Physical and mental wellbeing are linked to sleep, exercise and productivity

04

Making changes to our diet may also prove beneficial

05

Individuals
and
organisations
can make
choices that
can improve
productivity



### Thank You

Any questions?

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