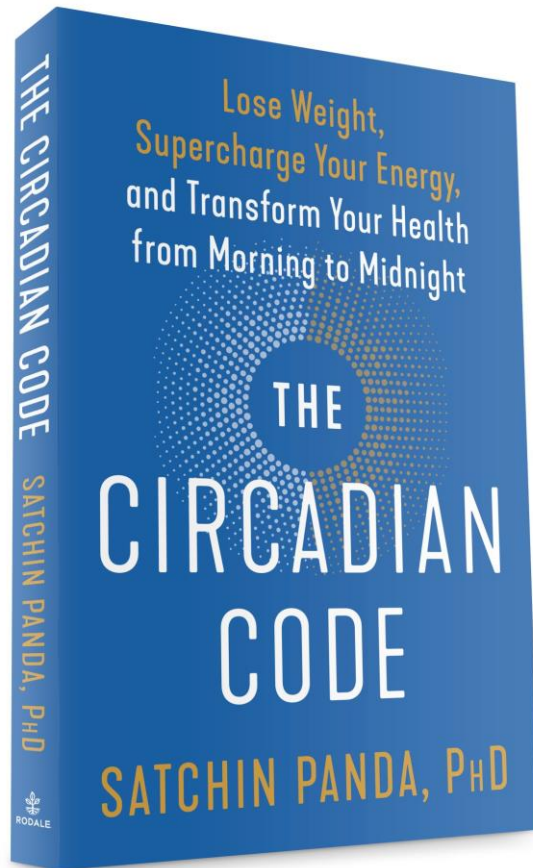


The Circadian Code

by Satchin Panda



“

Think of your brain as an office: Every morning when you enter it, you know nobody was there during the night, but still a lot happened – the trash can is empty, the servers were upgraded and broken light bulbs were replaced.

”

The 4 Stages of Sleep

**NREM
Stage 1**

**NREM
Stage 2**

**NREM
Stage 3**

**REM
Sleep**

90 to 120 minutes



Daily Body Rhythms

increase in body temperature

decrease in melatonin production

deep sleep &
memory consolidation

probable bowel movements

regeneration of intestinal
lining and skin

rise in cortisol

increase in growth
hormone levels

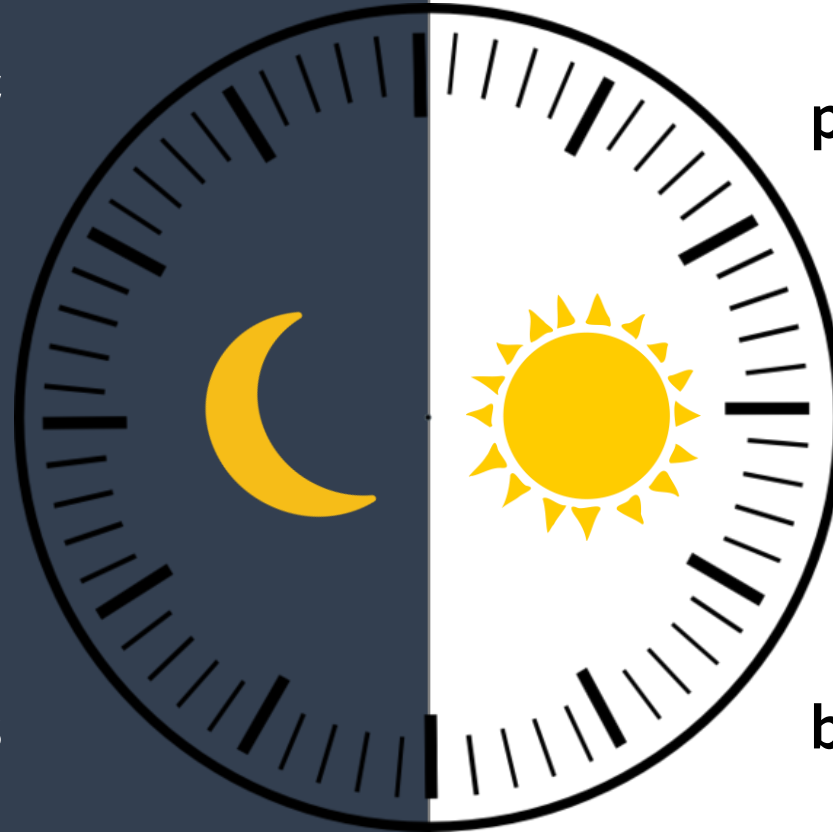
better blood sugar
regulation (glycemia)

slowing of bowel movements

better immune response

body cooling
increase in melatonin production

muscles ready to move
peak motor coordination





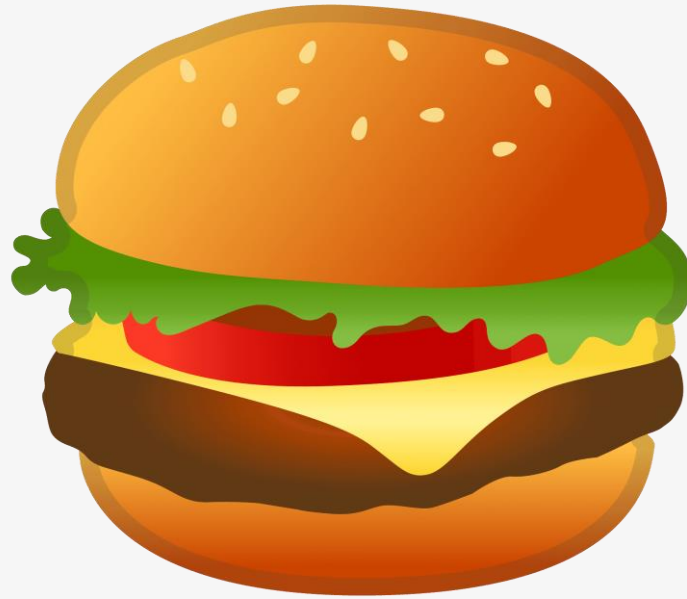
The most common cause of death and work disability of firefighters?

**What affects your
circadian rhythm and
sleep?**

1



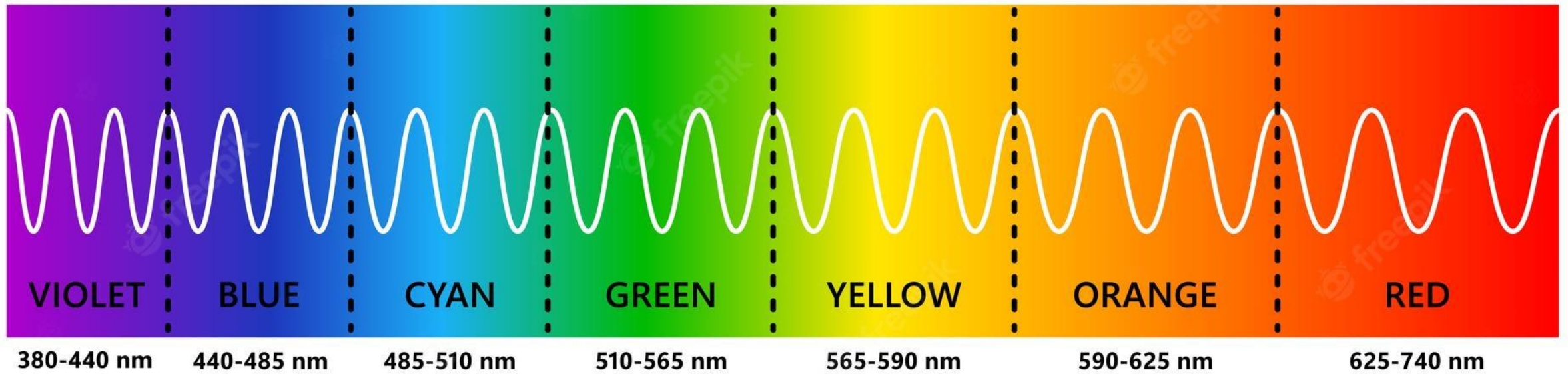
2



3



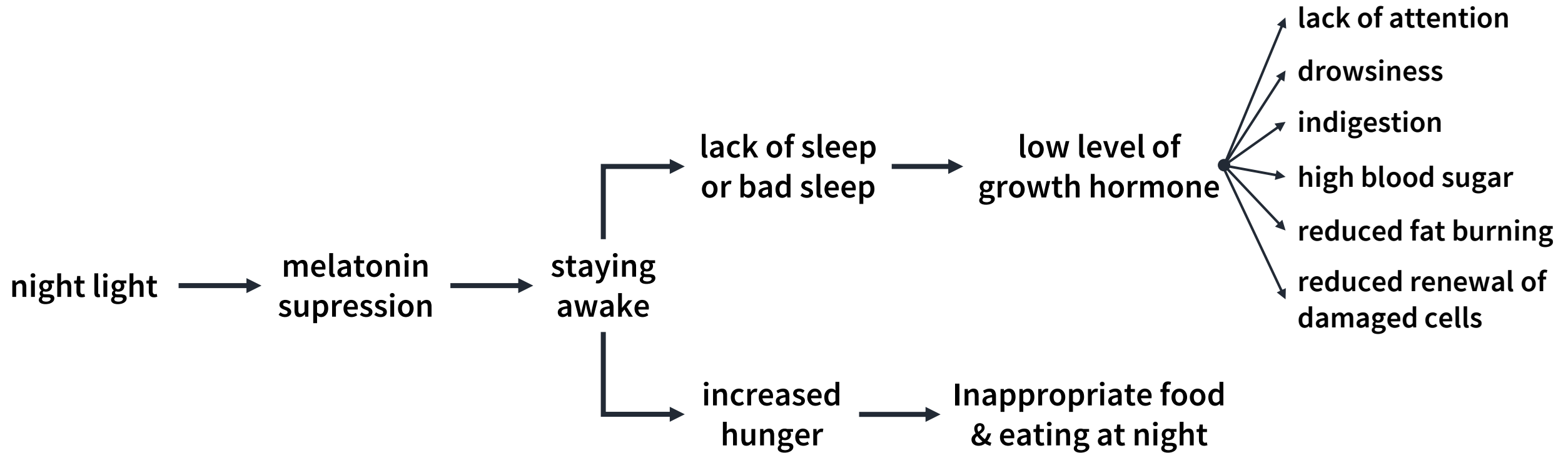
VISIBLE SPECTRUM



Melanopsin

= light sensor controlling the sleep-wake cycle

Night Light & Domino Effect



Blue Light Filtering



Time
Restricted
Eating





**Thank you for your
attention!**