



21% OF POPULATION

GO TO BED 01:00am

WAKE UP **09:00am**

PEAK CONCENTRATION HOURS

05:00pm - 10:00pm



Do your focused study in the late afternoon to early evening and your easier study in the morning after you wake up.

These results are based on Dr Michael Breus' book The Power of When.

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OPTIMISED CHRONOTYPE

- DAILY SCHEDULE -

It is estimated that around 21% of the global population is an wolf, or sometimes referred to as a 'PM-shifted' person. There are some concerns that some people are becoming more of an wolf than their chronotype might prefer, because of blue light exposure from screens. The wolf chronotype can be the most challenging chorontype for work purposes as it's incongruent to the traditional 9am-5pm workday. Most work schedules are designed for lions and bears, which often results in wolves working during some of their ideal sleep time.

You're the person who is most alert for an 8pm group study session (unlike the lion who dreads this time), but dreads seeing a 9am exam in your calendar! As an wolf, you naturally wake up in the mid to late morning, feel most energised in the late afternoon and well into the evening and are happy to go to bed in the early hours of the morning.

PEAK CONCENTRATION HOURS

05:00pm-10:00pm

Your energy and focus are at their peak in the lateafternoon and well into the evening. The evening is typically your mental prime time and when you can get the most work done. This is when you're best to tackle your 'focused study' (mentally taxing tasks) and should try to build a fortress around your focus at this time by disabling as many digital distractions as possible. This is an ideal time to solve problems and to think critically about subjects and study that require deeper concentration. It's also an ideal time to embed new principles and concepts.

LOW ENERGY HOURS

03:30pm-04:30pm

Your energy and focus are likely to dip in the mid to late afternoon. This is when you may start to feel tired and may become more easily distracted. This may also be the time where your motivation starts to wane. This is a typical part of your circadian rhythm. This would be an ideal time to take a longer break, engage in some physical activity (to bolster your focus), or attend to some of your "easier study" such as subjects that you find easier or revision of previously learned concepts.

OPTIMAL SLEEP TIMES

01:00am-09:00am

Ideally, you want to have a digital curfew, around an hour before you sleep (so 12am if you're intending on being asleep by 1am). Sleep is vital for our psychological wellbeing, productivity, focus and physical health. This is an ideal time to solve problems and to think critically about subjects and study that require deeper concentration. It's also an ideal time to embed new principles and concepts.





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Your Energy Trough

Research consistently tells us that we need to take regular breaks. We have energy peaks and troughs because of our ultradian rhythm (which means we go through peaks and troughs in our energy and focus in roughly 90 minute intervals). Ideally, we would be taking regular breaks every 90 minutes (possibly less, depending on your personal ultradian rhythm). Your energy will decline significantly between 3:30-4:30pm most days.



Boost your focus by increasing your exposure to light (natural or artificial). Consider going for a brisk walk outside just before 3:30pm, sitting near a window, turning on additional lights or repositioning yourself near a light source.



Get some 'greentime'. Time in nature will not only boost your focus (it's called the 'attention restoration theory') but it will also reduce your stress- just 40 seconds in nature has been shown to reduce cortisol levels.



Do a ten-minute movement burst to increase your blood flow and boost neurotransmitters that will help you focus like dopamine and norepinephrine. This could include going for a walk, walking the stairs, doing some resistance band training or some yoga poses.



Take a nap. Ideally, your nap could be 15-20 minutes in duration. This can increase your alertness for up to four hours. Do this closer to 3:30pm than 4:30pm as you need to build up your sleep pressure so you can easily fall asleep at night. If you nap too close to your preferred sleep time, a nap can significantly delay the onset of sleep.



Close your eyes for just 10 seconds. This allows the temporal and occipital lobes in your brain to have a rest. These two lobes help with auditory and visual processing and they take up 40% of the brain's architecture. So after a day on school in lessons, or working on your computer this part of the brain can need some rest.



Engage in a five to ten-minute meditation or mindfulness activity.

ADJUSTING YOUR RHYTHM

Your chronotype is biologically determined and cannot be shifted. Your genetics, environment, age and sex combine to influence your chronotype. However, you do have some control over your circadian rhythm and can make some slight adjustments to when you sleep. Please note, you cannot shift from a lion to a wolf.

Our bodies rely on zeitgebers, which are environmental cues, to align our circadian rhythm to the external world. For example, light exposure, mealtimes and social interactions are part of our daily schedules that can influence our circadian rhythm. Adjustments to these can have incremental impacts on our circadian rhythm.

Some wolves want to shift more towards being a lion or bear person. As previously suggested, it's challenging to be a wolf as the world operates on an AM-shifted or bi-phasic schedule. Many wolves suffer from sleep deprivation as their circadian rhythm is misaligned with the dominant work hours. Many wolves attempt to compensate for poor sleep during the week, by having longer sleeps on the weekends, which can actually exacerbate the problem as it can delay sleep onset on Sunday evening.

The following suggestions will help you to go to bed and wake up a little earlier. It is strongly advised that you do not deprive yourself of sleep in an effort to shift your schedule, or attempt to radically shift your chronotype's optimal routine. If you do want to adopt a more AM-shifted circadian rhythm, you could consider the following ideas:

- Shift your evening routine so you try to fall asleep 1-2 hours earlier (11pm-12am). Do this gradually over time, in roughly 15-20 minute intervals.
- Expose yourself to natural sunlight in the morning (between 7am-11am). If natural light exposure isn't an option then exposure to artificial lighting in the morning can helpconsider turning on energy-saving, fluorescent lights.
- Avoid bright lights (especially blue light from digital devices) in the 2 hours before your sleep so you can prevent sleep onset delays.
- Allow yourself to experience boredom or engage in more passive activities (watching TV instead of scrolling social media, gaming or replying to emails before sleep).
- Do something you enjoy, or engage in physical activity when you first wake up, to activate your focus. Both types of activities can bolster dopamine levels which can aid with focus.
- Move your evening meal by 1-2 hours earlier than you ordinarily would.
- Complete all physical activities at least three hours before you want to fall asleep.
- Keep your sleep routine consistent every day, even on weekends.