

Sleep (Life Xpansion Code)

Client

Demo Client

File

Ideal Sleep Window

The Ideal Sleep Window is the optimal period of time to get the most restful and rejuvenating sleep based on circadian rhythm. Circadian rhythm refers to the internal clock that regulates various biological processes in the body, including sleep-wake cycles. Every person has a unique circadian propensity, and it determines levels of alertness and restfulness throughout the day.

There are three categories of individuals associated with varying sleep windows: morning larks, intermediate, and night owls. Morning larks are early risers who feel most alert during the first half of the day, with the earliest sleep window. On the other hand, night owls tend to feel more alert in the evening and night hours and have a later sleep window. Intermediate types fall somewhere in between morning larks and night owls.

When individuals regularly sleep outside of their ideal sleep window, performance can diminish significantly. Understanding one's ideal sleep window can provide valuable insights into how the body responds to different sleep patterns, and provide the opportunity to create the optimal sleep schedule.



Ideal Sleep Window



Intermediate

Understanding what this may mean

Intermediate sleep window means there's not a strong propensity towards being a night owl or an early morning lark. This is a relatively normal genetic result. In general, studies have found increased benefit from shifting to earlier sleep and wake times, but in general, people with this result tend to do best with bedtimes and wake-times of 9pm-12am and 5-8am.

Genetic Summary ¹⁰

SNP	Marker	Genotype
CSNK1D T130C	rs104894561	TT
PER3 T1916G	rs10462020	TG
PER3 A3473G	rs10462021	AG
PER2 T1984C	rs121908635	TT
CRY1 T1657+3G	rs184039278	TT

SNP	Marker	Genotype
CLOCK A*213G	rs1801260	AG
CRY1 G636A	rs8192440	GG
PER3 C2566G	rs228697	CC
PER3 A1247G	rs139315125	AA
PER3 C1240G	rs150812083	CC

Time in Bed

Getting the right amount of sleep is essential for overall health and well-being. There are many different aspects to time in bed; there's the time it takes to fall asleep, our actual sleep length, the micro-awakenings that occur each night, and are forgotten, and the true disruptions in sleep which wake us up.

Sleep length refers to the total amount of time spent sleeping, not including the time it takes to fall asleep or any awakenings during the night. Most people tend to focus on recommendations for sleep length as recommendations for time in bed, which can result in consistently low sleep length and quality.

Micro-awakenings are brief interruptions in sleep that can occur throughout the night. While they are normal, they can affect the overall quality of sleep. Some individuals may experience more frequent or longer micro-awakenings, which can play a role in determining ideal time in bed.

This page provides genetic propensities for the most ideal sleep length and time in bed, as well as the expected amount of micro-awakenings.



Ideal Total Time in Bed



Neutral - 7.5 to 8 hours

Understanding what this may mean

Individuals with this result may have a genetic propensity for requiring an average amount of time in bed. Maintaining good sleep hygiene, such as establishing a regular sleep schedule and creating a relaxing sleep environment, can help optimize the benefits of this amount of sleep.

Sleep Length Propensity



Shorter Sleep

Understanding what this may mean

Individuals with this result may have a genetic propensity for requiring slightly less sleep than the average person. They may be able to function effectively on slightly less sleep than others, but it is important to note that chronic sleep deprivation can lead to negative health consequences. It is recommended that individuals with this result assess their sleep quality and ensure they are getting sufficient restorative sleep.

Micro-Awakening Propensity



Increased

Understanding what this may mean

Individuals with this result may experience up to 75-90 minutes of micro-awakenings during the night, which may indicate a genetic propensity for more fragmented and less restful sleep. To optimize sleep, individuals with this result may benefit from practicing good sleep hygiene, such as establishing a consistent sleep schedule, creating a relaxing sleep environment, and addressing any underlying sleep disorders that may be contributing to the increased micro-awakenings.

Genetic Summary ⁹

SNP	Marker	Genotype
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SNP	Marker	Genotype
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DEC2 G1151C	rs121912617	GG
COMT G472A	rs4680	AA
CLOCK A*213G	rs1801260	AG
ABCC9 G3474-1222A	rs11046205	GG
CLOCK A793-1130G	rs11932595	GG

CLOCK G-446-4252A	rs12649507	AG
BTBD9 G1154+104406A	rs3923809	AG
MEIS1 T965+6302G	rs2300478	TT
PTPRD G103-113009A	rs1975197	AG

Depression

Depression, a complex and multifaceted mental health condition, is influenced by a myriad of factors, including genetic predispositions, environmental stressors, and lifestyle choices. This section delves into the genetic underpinnings of depression, aiming to shed light on how genetic variations can influence an individual's propensity for developing depression and guide personalized intervention strategies.

Research has identified several genetic markers associated with an increased risk of depression. Variations in genes related to neurotransmitter systems, such as serotonin and dopamine, play significant roles in mood regulation and can affect an individual's vulnerability to depression. Additionally, genes involved in the hypothalamic-pituitary-adrenal (HPA) axis, which regulates stress response, may contribute to the development and severity of depressive symptoms. The relationship between genetics and depression is further complicated by environmental influences, such as life stressors, trauma, and social support networks. Genetic predispositions can interact with these external factors, modulating the risk and expression of depression.

Identifying genetic predispositions to depression can inform personalized approaches to mental health care, including preventative measures, lifestyle modifications, and tailored treatment plans. For instance, individuals at higher genetic risk may benefit from early intervention strategies, such as stress management techniques, regular physical activity, and enhanced social support, to mitigate the impact of stressors and reduce the likelihood of developing depression. Genetic testing can also guide the selection of antidepressant medications and psychotherapy approaches, enhancing treatment efficacy and reducing trial-and-error processes. Pharmacogenomics, the study of how genes affect a person's response to drugs, is particularly promising in identifying which antidepressants are likely to be most effective or have fewer side effects for a given individual, based on their genetic makeup.



Depression Propensity



Very Low

Understanding what this may mean

Individuals with a very low risk of depression have genetic markers that significantly reduce their likelihood of experiencing depression compared to the general population. This favorable genetic predisposition suggests a strong resilience to developing depression under typical circumstances. However, maintaining a healthy lifestyle, including regular physical activity, a balanced diet, and stress management practices, can further support mental well-being

Mood-induced Sleeplessness Risk



Neutral

Understanding what this may mean

Individuals with this result are likely to have a neutral risk of developing sleeplessness as a result of mood or emotional fatigue. In general, low mood and emotional fatigue can interfere with sleep quality and lead to difficulties falling or staying asleep. However, individuals with this result are not at an increased risk compared to the general population.

Genetic Summary ¹⁷

SNP	Marker	Genotype
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SNP	Marker	Genotype
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FKBP5 T106-2636C	rs1360780	Indeterminate
FKBP5 C*1136A	rs3800373	AA
SOD2 A47G	rs4880	AG
ACE A-239T	rs4291	AA
MTHFR A359+160G	rs17367504	AA
ESR1 A453-351G	rs9340799	AA
DIO2 C-143T	rs12885300	TT
DIO2 T274C	rs225014	TT
NR3C1 G1184+646C	rs41423247	CG

CRHR1 C241+1631T	rs242939	TT
BDNF C196T	rs6265	CC
ARNTL T671-305G	rs11022778	TT
ABCC9 G3474-1222A	rs11046205	GG
CRHR1 A122-1309C	rs242941	CC
TPH2 g.G4298T	rs4570625	TT
CNR1 C1359T	rs1049353	TC
FAAH C385A	rs324420	CC