



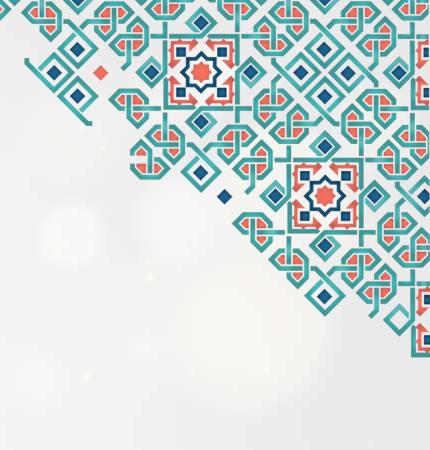
# YAMEENUDDIN AHMED CEO | TIMELENDERS

Awaken to Better Sleep: Mastering Restful Nights and Productive Days



- Name
- Profession & Organization
- How long have you been with the organization?
- Graduation / Post Graduation
- Any Workshops have you done with Timelenders in the past?
- Any Sleep Management Challenges?

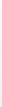






#### **ASSALAM-O-ALAIKUM WRWB**







# l'M... Yameenuddin Ahmed

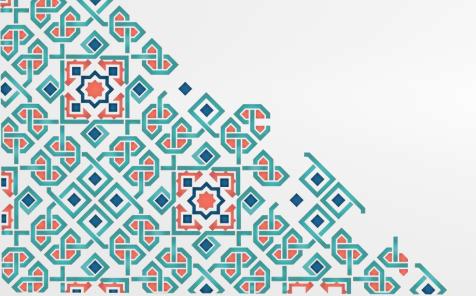
- Personal & OD Trainer, Life Coach, and Organizational & Family Business Consultant
- CEO Timelenders
- 22+ years in training, coaching & consulting
- Got the opportunity to facilitate multiple Fortune 500 and Forbes Global 2000 companies
- Honored to be invited to Umm-ul-Qura University Mekkah-tul-Mukarramah in 2017
- We have positively influenced over 100,000 people from 85+ Nationalities
- 1000+ Organizational clients from all walks of life from Asia, Africa, ME, Europe & NA
- Extensively Traveled to various parts of the world, including Pakistan, Southeast Asia, the
- Far East, the Middle East, Europe, and Africa





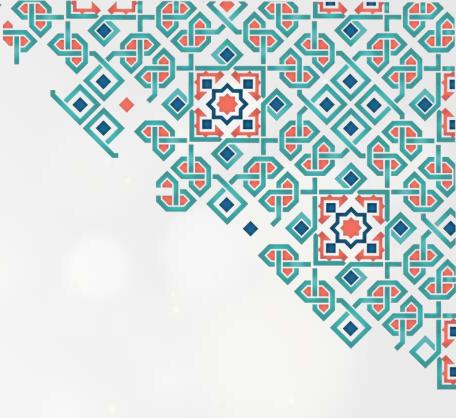
# Learning objectives

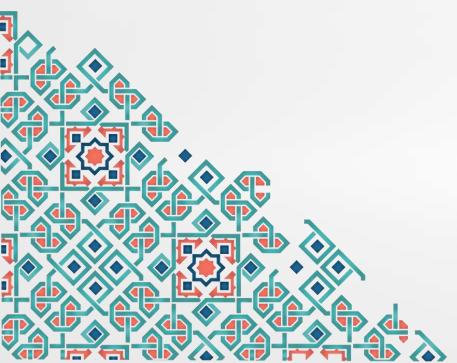
- 1. Understanding Sleep
- 2. What Islam (Quran & Sunnah) tell us about Sleep
- 3. How much sleep is enough to sleep?
- 4. How can we determine the Optimal Sleep for ourselves, which is the optimum number of hours that we need to sleep per day
- 5. What is the quality of Sleep?
- 6. Factors that affect the quality of Sleep





# How Many Hours Do You Sleep?





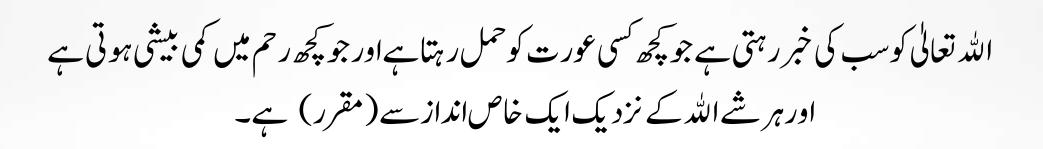


#### The Divine Measure



#### Surah Ar-Ra'd; Ayah 8

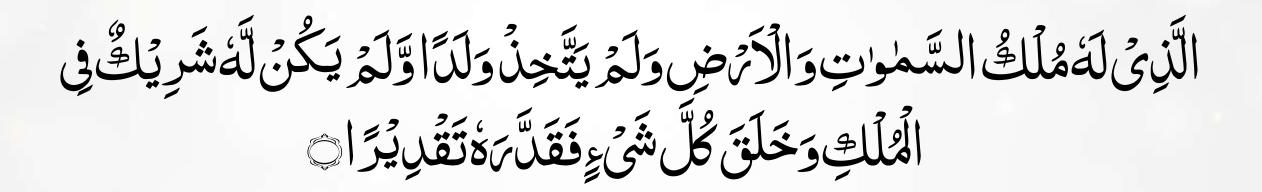
Allah knows what every female carries and what the wombs lose (prematurely) or exceed. And everything with Him is by due measure.





#### The Divine Measure

Surah Al Furqan; Ayah 2

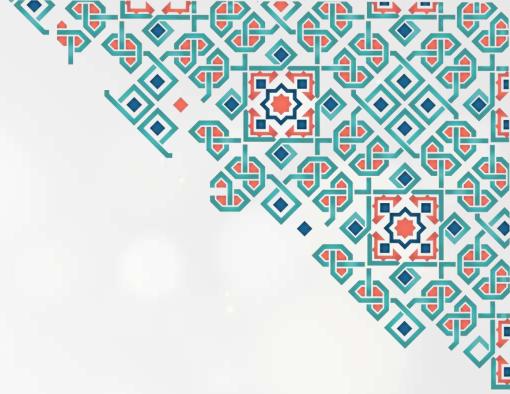


He to Whom belongs the dominion of the heavens and the earth, and Who has begotten no son (children or offspring) and for Whom there is no partner in the dominion. He has created everything and has measured it exactly according to its due measurements.

وہ ایسی ذات ہے جس کے لیے آسانوں اور زمین کی حکومت ہے اور اس نے کسی کو (اپنی) اولاد قرار نہیں دیااور نہ محکومت میں کوئی اس کا نثر یک ہے اور اس نے (ممکنات میں سے) ہر (موجود) چیز کوایک معین مقدار کے ساتھ جیومت میں کوئی اس کا نثر یک ہے اور اس نے (ممکنات میں سے) ہر (موجود) چیز کوایک معین مقدار کے ساتھ بیدا کیا بھر سب کاالگ الگ انداز در کھا۔



#### **The Divine Measure**



Surah Al-Qamar; Ayah 49

Surely! We have created everything by measure.





# Sunrise and Sunset in Karachi In October 2024

				Length of day		Solar noon	
	Date Oct 2024	Sunrise (hh:mm)	Sunset (hh:mm)	This Day (hh:mm:ss)	Difference (mm:ss)	Time / Altitude (hh:mm)	Distance (million km)
	16	06:30 <b>1</b> (100°)	18:03 <b>1</b> (260°)	11:33:17	-1:23	12:17 (56.0°)	149.117
	17	06:31 <b>1</b> (100°)	18:02 <b>1</b> (260°)	11:31:54	-1:22	12:17 (55.7°)	149.075
	18	06:31 <b>1</b> (100°)	18:02 <b>1</b> (259°)	11:30:32	-1:22	12:16 (55.3°)	149.033
	19	06:32 <b>1</b> (101°)	18:01 <b>1</b> (259°)	11:29:10	-1:22	12:16 (55.0°)	148.991
	20	06:32 <b>1</b> (101°)	18:00 <b>1</b> (259°)	11:27:48	-1:21	12:16 (54.6°)	148.95
	21	06:33 <b>1</b> (102°)	17:59 <b>1</b> (258°)	11:26:27	-1:21	12:16 (54.2°)	148.909
	22	06:33 <b>1</b> (102°)	17:58 <b>1</b> (258°)	11:25:06	-1:20	12:16 (53.9°)	148.868
<b>♦</b>	23	06:34 <b>1</b> (102°)	17:57 <b>1</b> (257°)	11:23:45	-1:20	12:16 (53.5°)	148.828



# Sunrise and Sunset in Karachi In October 2124

				Length	of day	Solar noon	
	Date Oct 2124	Sunrise (hh:mm)	Sunset (hh:mm)	This Day (hh:mm:ss)	Difference (mm:ss)	Time / Altitude (hh:mm)	Distance (million km)
	16	06:30 <b>1</b> (99°)	18:04 <b>1</b> (260°)	11:33:36	-1:23	12:17 (56.1°)	149.198
	17	06:30 <b>1</b> (100°)	18:03 <b>1</b> (260°)	11:32:13	-1:22	12:17 (55.8°)	149.155
	18	06:31 <b>1</b> (100°)	18:02 <b>1</b> (260°)	11:30:51	-1:22	12:17 (55.4°)	149.112
	19	06:31 <b>1</b> (101°)	18:01 (259°)	11:29:29	-1:22	12:16 (55.0°)	149.069
	20	06:32 <b>1</b> (101°)	18:00 <b>1</b> (259°)	11:28:07	-1:21	12:16 (54.7°)	149.026
	21	06:32 <b>1</b> (101°)	17:59 <b>1</b> (258°)	11:26:46	-1:21	12:16 (54.3°)	148.984
	22	06:33 <b>1</b> (102°)	17:58 <b>1</b> (258°)	11:25:25	-1:20	12:16 (54.0°)	148.942
<b>♦</b>	23	06:33 <b>1</b> (102°)	17:58 <b>1</b> (258°)	11:24:05	-1:20	12:16 (53.6°)	148.901



## Devine Measurement For Everything

Consider the following things Allah (swt) has created with a measure and imagine what will happen if this measurement is disturbed.

- Distance between the Earth and the Sun and the fluctuation of this difference
- Our body temperature
- The range of cholesterol levels in our bodies
- The range of sugar level
- The range of levels for different body minerals, like iron, calcium, potassium, magnesium, etc.
- The levels of Oxygen, Carbon dioxide, carbon monoxide, nitrogen in the air



### A Million Dollar Question!

Why should sleep be any different?







# What is My Story?







#### **IMPACT!**

- The impact I have on my life by saving 2.5 hours by cutting out on useless sleep and putting it to good use:
  - -Total hours saved in a week:

$$7 \times 2.5 = 17.5 \text{ hrs}$$

$$17.5 \text{ hrs x } 52 \text{ weeks} = 910 \text{ hours/year}$$

-If my effective workday is of 8 hours:

$$910 \div 8 = 113.75 \text{ workdays}$$

-It's been 21 years I am practicing this:

$$113.75 \times 21 = 2,389 \text{ workdays}$$

- Convert this into Years:



### What Have I Done With This Time?

- Reading the Quran with translation and tafsir.
- Spending quality time with family
- Upgrading my knowledge and skills.
- Reading an average of 20 books each year.
- Completing an average of 8 to 10 courses annually.
- Designing and managing multiple vision-oriented projects.
- Writing—Alhamdulillah, books will soon be published as a result.

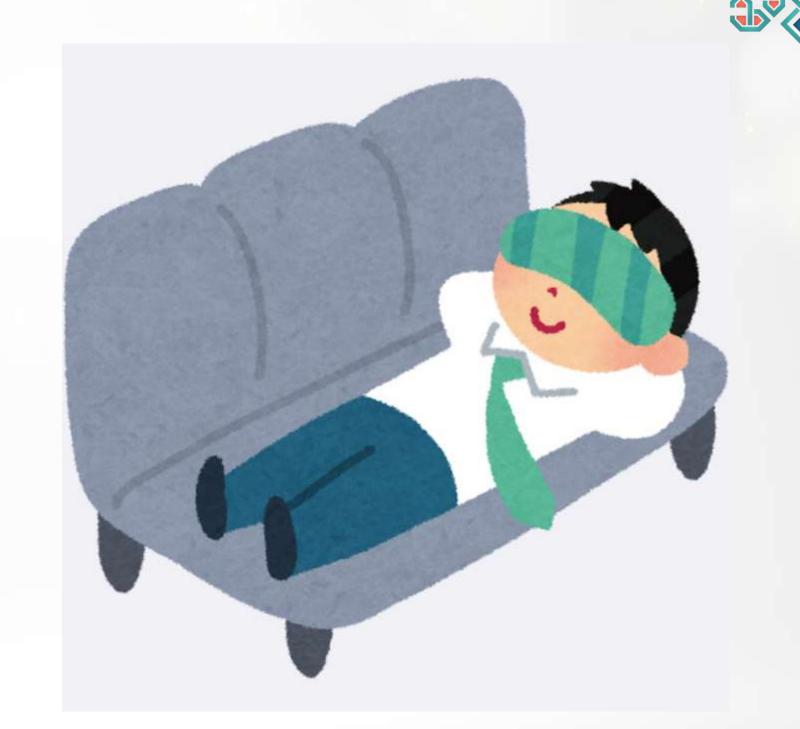




## How To Manage The Day When You Start Early?'

### Qailoolah

A qailoolah is a short nap or siesta taken in the middle of the day. It was a common practice by the Prophet Muhammad (saw) and Sahaba and is considered a permanent Sunnah.



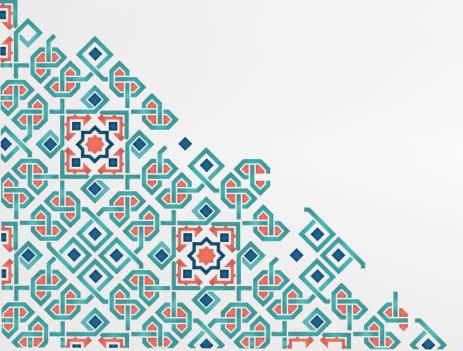




قال سول الله طلطينية :

بُورِ الْحَارِي فِي فِي مِنْ مِنْ فَعَرِيهِ مَا لَكِيرِ الْطِيرِ الْحَارِ الْمُعْمِ الْكِيرِ الْطِيرِ الْعَبِرِ الْطِيرِ الْعِيرِ الْطِيرِ الْعِيرِ الْطِيرِ الْعِيرِ الْطِيرِ الْعِيرِ الْطِيرِ الْعِيرِ الْطِيرِ الْعِيرِ الْعِير

میری امت کی برکت سویر ہے میں ہے۔





# اللهم بَارِك لِامَّنِي فِي بُكُورِهَا

(باب ماير جي من البرسة في البكور ،: 3، ص 346: 8 ط الار نوط)

" صخرِ بن وداعہ غامدی رضی اللہ عنہ سے روایت ہے کہ نبی طبی کیاہی نے فرمایا: ''اے اللہ! میری امت کواس کے دن کے ا ابتدائی جصے میں برکت دے''

آپ طبی آیا ہم جب کسی سریہ یالشکر کوروانہ کرتے توائسے دن کے ابتدائی جھے میں روانہ کرتے۔ صخرایک تاجرآد می تھے۔ جب فرماتے ہیں کہ وہ تجارت کاسامان لے کر (اپنے آد میوں کو) روانہ کرتے توانہیں دن کے ابتدائی جھے میں روانہ کرتے چنانچہ وہ مال دار ہو گئے ،اوران کے پاس مال کی کثرت ہوگئی۔ "



الصبحة تمنع الرزق

(مسنداحمر)

صبح کی نیندرزق کوروک دیتی ہے۔

دو صبح کے وقت " سے کیامراد ہے؟ اس کا تعین ایک دوسری روایت سے ہوتا ہے جس کا مفہوم بیہ ہے کہ اللہ تبارک و تعالی صبح صادق سے لے کر طلوع آفتاب تک

مخلوق کے لیے رزق تقسیم کرتے ہیں لیعنی جولوگ اس پورے وقت میں غافل رہتے ہیں وہ رزق کی برکت سے محروم رہتے ہیں.

اس حدیث سے بیہ بات معلوم ہوئی کہ بیہ ممانعت صبح صادق سے لے کر طلوع آفتاب تک پورے در میانی وقت میں سونے میں ہے؛للذاا گر کوئی شخص نماز فجر کے بعد

تھوڑی دیر تسبیحات وغیرہ میں لگارہے اور سوج طلوع ہونے کے بعد پچھ دیر کے لیے سوجائے تواس کے حق میں کوئی قباحت وکراہت نہیں رہے گی، بعض بزر گوں کا

اس طرح کامعمول رہاہے۔لیکن بیر سونادن چڑھے تک نہ ہوورنہ فوائد جاتے رہیں گے.

عن فاطمة بنت محمد صلى الله عليه وسلم قالت: مرهبي رسول الله - صلى الله عليه وسلم - وأنامضطحجة منضبحة ، فحر كني برجله ثم قال: يابنيّة قومي واشهدي رزق ربّك ، ولا

تكوني من الغافلين؛ فإن الله يقسم أرزاق الناس ما بين طلوع الفجر إلى طلوع الشمس " (شعب إلا بمان، ۵ • ۴۴، فصل في النوم الذي نعمة الله الخ

# اقوال اكابر

ا۔رزق کی برکت سے محرومی ہوتی ہے

(حضرت عثمان)۔

۲۔ دن کے اول حصہ کی نیند جہالت ہے

( حضرت خوات بن جبير) به

سے کسب معاش اور قضاء حوائج میں تاخیر ہوتی ہے

(حضرت عبدالله بن عمرو)۔

اندیشہ کے ضائع ہونے کااندیشہ ہے

(حضرت ابن زبير)

۵۔ زمین بھی ناپیند کرتی ہے، اور تکلیف کا ظہار کرتی ہے

(حضرت ابن زبير ، علقمه)

۲۔جسمانی بخار کو بڑھاتی ہے،انسان کوست کرتی ہے اور طبیعت میں خشکی بیدا کرتی ہے

(حضرت عمر)۔

ے۔ بڑھایے کو جلدی لاتی ہے

(حضرت ابن عباس)۔

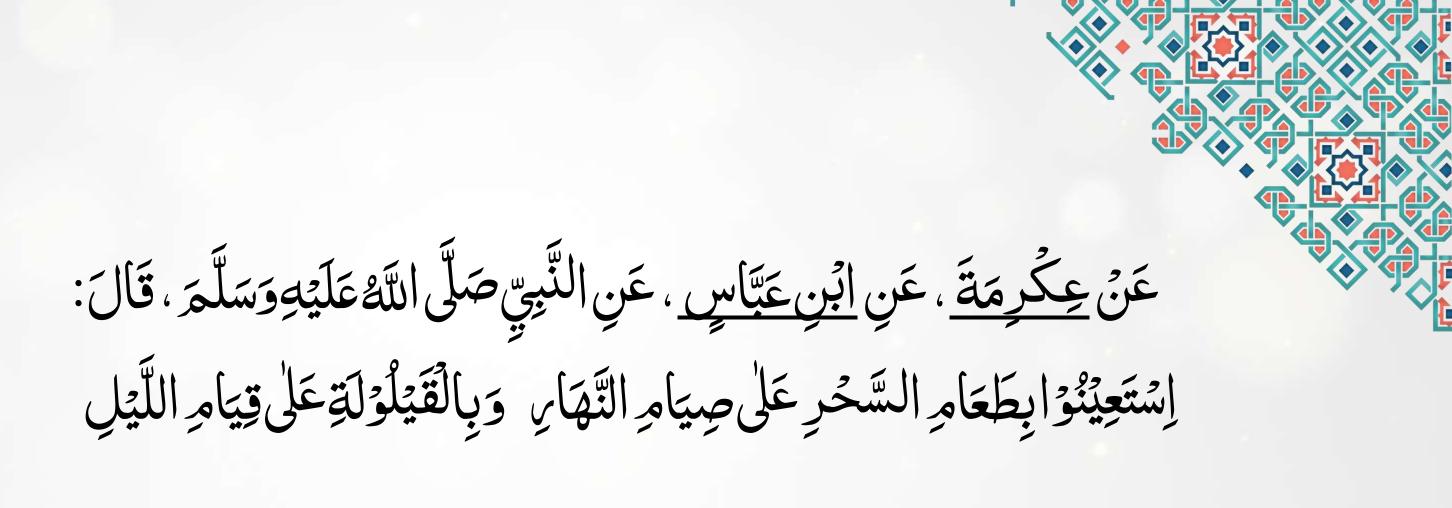
٨ ـ اس كى عادت لا پر وائى كو جنم ديتى ہے

(حضرت عمر بن عبدالعزيز)۔

9۔ فرشتوں کو صبح سویر نے بندوں کی روزیوں کی تقسیم پر مامور کیاجاتا ہے ، تووہ سوئے ہوئے کو مستغنی سمجھ کر طالبِ رزق کی طرف توجہ کرتے ہیں

( التنوير شرح الجامع الصغير) \_





سید ناابن عباس رضی اللہ عنہمانبی کریم سے روایت کرتے ہیں کہ آپ صلی اللہ علیہ وسلم نے فرمایا: ''سحری کے کھانے کے ساتھ دن کے روزے میں مدد حاصل کرواور دن کو قیلولہ کر کے رات کے قیام کے لئے مدد لے لو۔'' [ صحیح ابن خزیمہ /حدیث: 1939]





# قيلوا، فإن الشياطين لاتقيل

(السلسلة الصحيحة للألباني: 1647 أخرجه ابونعيم والطبراني)

آپ صلی الله علیه وسلم نے فرمایا: قبلوله کرو کیونکه شیطان قبلوله نهیں کرتا۔







انسيقول:

"كنانبكر إلى الجمعة ثمر نقيل".

سیر ناانس رضی الله عنه، فرماتے تھے کہ ہم جمعہ جلد بڑھتے،اس کے بعد دو پہر کی نیند لیتے، قیلولہ کرتے تھے۔

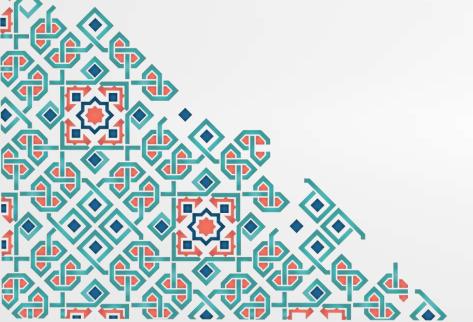






"كنانصلي مع النبي صلى الله عليه وسلم الجمعة ثمر تكون القائلة".

سہل بن سعدر ضی اللہ عنہ نے بیان کیا، انہوں نے بتلایا کہ ہم نبی کریم صلی اللہ علیہ وسلم کے ساتھ جمعہ بڑھے، پھر دوپہر کی نبیندلیا کرتے، قبلولہ کیا کرتے تھے۔





# Significance of Qailoolah



اَصْحُبُ الْجُنَّةِ يَوْمَعِنِ خَيْرُ هُسْتَقَرَّا وَآحُسَنُ مَقِيلًا ٥

The companions of Paradise, that Day, are (in) a better settlement and better resting place.

البته اس دن جنتیول کاظه کانا بهتر ہو گااور خواب گاہ بھی عمدہ ہو گی۔

مُسُتَقَد، مستقل جائے قیام کو کہاجاتا ہے اور <u>مَقیل</u> قیلولہ سے مشتق ہے۔ دو پہر کوآرام کرنے کی جگہ کو مَقِیل کہتے ہیں۔اس جگہ مَقیل کاذکر خصوصیت سے شاید اسلئے بھی ہوا ہے کہ ایک حدیث میں آیا ہے کہ قیامت کے روز حق تعالی نصف النہار کے وقت ساری مخلو قات کے حساب کتاب سے فارغ ہوجاویں گے اور دو پہر کے سونے کے وقت اہلِ جنت جنت میں پہنچ جائیں گے اور اہلِ جہنم جہنم میں۔

(تر جی)



# Significance of Qailoolah



يَايُّهَا الَّذِينَ امَنُوْ الِيَسْتَأْذِنُكُمُ الَّذِينَ مَلَكَتُ اَيُمَانُكُمُ وَالَّذِينَ لَمْ يَبُلُغُوا الْحُلْمَ مِنْكُمُ ثَلْتَ مَرَّتٍ طَمِنُ قَبُلِ صَلُوةِ الْفَجُرِ
وَحِيْنَ تَضَعُوْنَ ثِيَابَكُمُ مِّنَ الظَّهِيْرِةِ وَمِنُ بَعُدِ صَلُوةِ الْعِشَاءِ طَقَفَ ثَلَثُ عَوْمَتٍ لَّكُمُ طَلِيْ النَّهُ عَوْمَتُ الْتُعُمُ وَلاَ عَلَيْهِمُ جُنَاحٌ بَعُلَهُمْ وَلاَ عَلَيْهِمُ وَلاَ عَلَيْهِمُ مُنَاطُّ فَي مَنَ الظّهِيْرِةِ وَمِنْ بَعُدِ صَلُوةِ الْعِشَاءِ طَقَفَ ثَلْثُ عَوْمَاتٍ لَّكُمُ لَا لَيْسَ عَلَيْكُمُ وَلاَ عَلَيْهِمُ جُنَاحٌ بَعُلَهُمْ اللَّهُ عَلَيْكُمُ وَلاَ عَلَيْهِمْ وَلاَ عَلَيْهِمْ وَلاَ عَلَيْهِمْ وَلاَ عَلَيْهِمْ وَلاَ عَلَيْهِمْ وَلاَ عَلَيْهُمْ وَلاَ عَلَيْهِمْ وَلاَ عَلَيْهِمْ وَلاَ عَلَيْهِمْ وَلاَ عَلَيْهِمْ وَلاَ عَلَيْهُمْ وَلاَ عَلَيْهُمْ وَلاَ عَلَيْهُو مُ اللّهُ عَلَيْكُمُ وَلاَ عَلَيْهُمْ وَلاَ عَلَيْكُمْ وَالْعَلَيْكُمْ وَلاَ عَلَيْكُمْ وَلاَ عَلَيْهُمْ اللّهُ عَلَيْكُمْ وَلاَ عَلَيْهِمْ اللّهُ وَالْعَنْ اللّهُ عَنْ اللّهُ عَمْ مِنْ اللّهُ عَلَيْ عَمْ مَالْعُولُ مَا لَا عَلَيْكُمْ وَلاَ عَلَيْكُمْ وَلا عَلَيْهُمْ لَكُ عَلَيْكُمْ وَلا عَلَيْكُمْ وَلا عَلَيْهُمْ مُ عَلَيْكُمْ وَلا عَلَيْكُمْ وَلَا عَلَيْكُمْ وَلَا عَلَيْكُو فَالْعِيشَاءِ وَالْعَالْمُ عَوْلا عَلَيْكُمْ وَالْمُ وَالْعَلْمُ عَلَيْكُمْ وَلا عَلَيْكُمْ وَلا عَلَيْكُمْ وَلا عَلَيْكُمْ وَلا عَلَيْكُمْ وَلا عَلْقَاعُوا لَعْلَا عَلَيْكُمْ وَلا عَلَيْكُمْ وَالْعُوالْمُ عَلَيْكُمْ وَالْمُ عَلَيْكُمْ وَالْعُوالْمُ عَلَيْكُمْ وَلا عَلَيْكُمْ وَلا عَلَيْكُمْ وَالْعُلْكُمُ وَالْعُلْكُمْ وَلا عَلَالْعُوا الْعِلْمُ وَالْعُوا الْعُوالِ عَلَيْكُمْ وَالْعُلُولُ وَالْعُوا الْع

طَطُونُونَ عَلَيْكُمْ بَعُضْكُمْ عَلَى بَعْضٍ طَكَالِكَ يُبَيِّنُ اللهُ لَكُمُ الْآيْتِ طَوَاللهُ عَلِيْمٌ حَكِيْمٌ ٥

O you who have believed, let those whom your right hands possess and those who have not [yet] reached puberty among you ask permission of you [before entering] at three times: before the dawn prayer and when you put aside your clothing [for rest] at noon and after the night prayer. [These are] three times of privacy for you. There is no blame upon you nor upon them beyond these [periods], for they continually circulate among you - some of you, among others. Thus, Allah makes the verses clear to you, and Allah is Knowing and Wise.

ایمان والو! تم سے تمہاری ملکیت کے غلاموں کواور انہیں بھی جو تم میں سے بلوغت کونہ پہنچے ہوں (اپنے آنے کی) تین وقتوں میں اجازت حاصل کرنی ضروری ہے۔ نماز فجر سے پہلے اور ظہر کے وقت جب کہ تم اپنے کپڑے انارز کھتے ہواور غشاکی نماز کے بعد ، یہ تینوں وقت تمہاری (خلوت) اور بردہ کے ہیں۔ان وقتوں کے ماسوانہ تو تم پر کوئی گناہ ہے نہ ان پر ۔ تم سب آپس میں ایک دو سرے کے پاس مکترت آنے جانے والے ہو (بنی)،اللہ اسی طرح کھول کھول کر اپنے احکام تم سے بیان فرمار ہاہے۔اللہ تعالی پورے علم اور کامل حکمت والا ہے۔

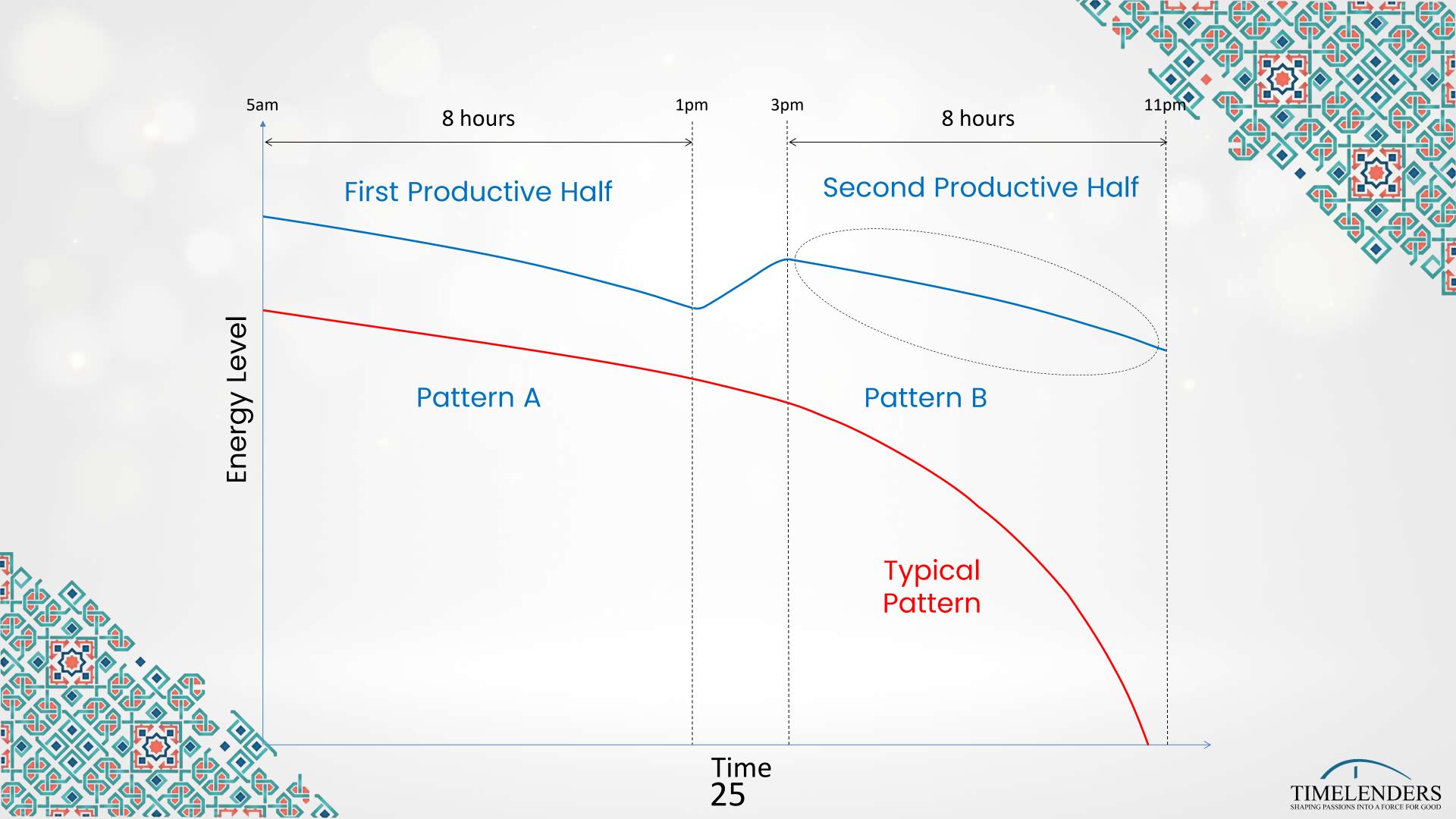


# Significance of Qailoolah

#### Surat An-Nūr; Ayah 58

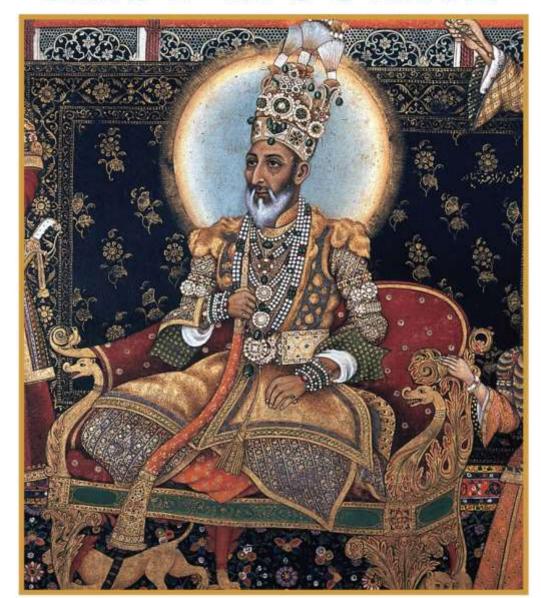
(۲۲) آیات: ۲۲ تا۲۹ میں بیر تھم دیا گیا تھا کہ کسی دوسرے کے گھر میں اجازت مانگے بغیر داخل نہیں ہونا چاہئے۔عام طور سے مسلمان اس پر عمل کرنے لگے تھے، لیکن کسی گھر کے غلام باند یوں اور نا بالغ لڑکے لڑکیوں کو چونکہ بکثر ت گھروں میں آناجانار ہتا تھا،اس لئے وہ اس کی پابندی نہیں کرتے تھے۔ چنانچہ بعض واقعات ایسے پیش آئے کہ لوگ کسی کے گھر میں لیسے وقت بلااجازت داخل ہو گئے جواُس کے آرام اور تنہائی کاوقت تھا، جس سے نہ صرف ہے کہ اُس کو تکلیف ہوئی، بلکہ بے پر دگی بھی ہوئی۔اس پر ہے آیات نازل ہوئیں،اوران میں بیرواضح کر دیا گیا کہ کم از کم نین او قات میں ان لو گوں کو بھی بلااِجازت گھروں میں داخل نہیں ہونا جاہئے۔ یہ تین او قات وہ ہیں جن میں عام طور سے انسان تنہائی پیند کرتاہے ،اور بے تکلفی سے صرف ضروری کپڑوں میں رہنا جا ہتا ہے،اورایسے میں کسی کے اجانک آجانے سے بے پر دگی کا بھی اختال رہتا ہے۔البتہ دوسرے او قات میں چونکہ بیہ خطرہ نہیں ہے، اس کئے ضرورت کی وجہ سے ان کوبلااِ جازت بھی جلے جانے کی اجازت دی گئی ہے۔





#### THE

#### LAST MUGHAL



THE FALL OF A DYNASTY: DELHI, 1857

#### WILLIAM DALRYMPLE

The year 1857 in India, referred to as the Mutiny or the Uprising by historians, is at least agreed to have been a pitiless war. From that point of consensus, Dalrymple expands on the implacable violence that destroyed Delhi and uncounted thousands of people in the course of fighting between the British and their Indian allies, and the complex cast of insurrectionists. Dalrymple's account is an original, important contribution to the controversies of 1857, for it draws on an archive "virtually unused" by historians; it includes papers generated by the anti-British forces during their temporary control of the city. After killing most of the Europeans and Christians in reach, they rallied around Delhi's figurehead Mughal ruler, the octogenarian Bahadur Shah Zafar II. Dalrymple presents Zafar as a kindly but indecisive soul who was flummoxed by the surrounding atrocities. Surviving the bloodbath the vengeful British inflicted, Zafar, exiled to Burma with his dynasty extinguished, earns Dalrymple's sympathy. His riveting narrative will engross readers of the annals of British imperialism. *Gilbert* Taylor

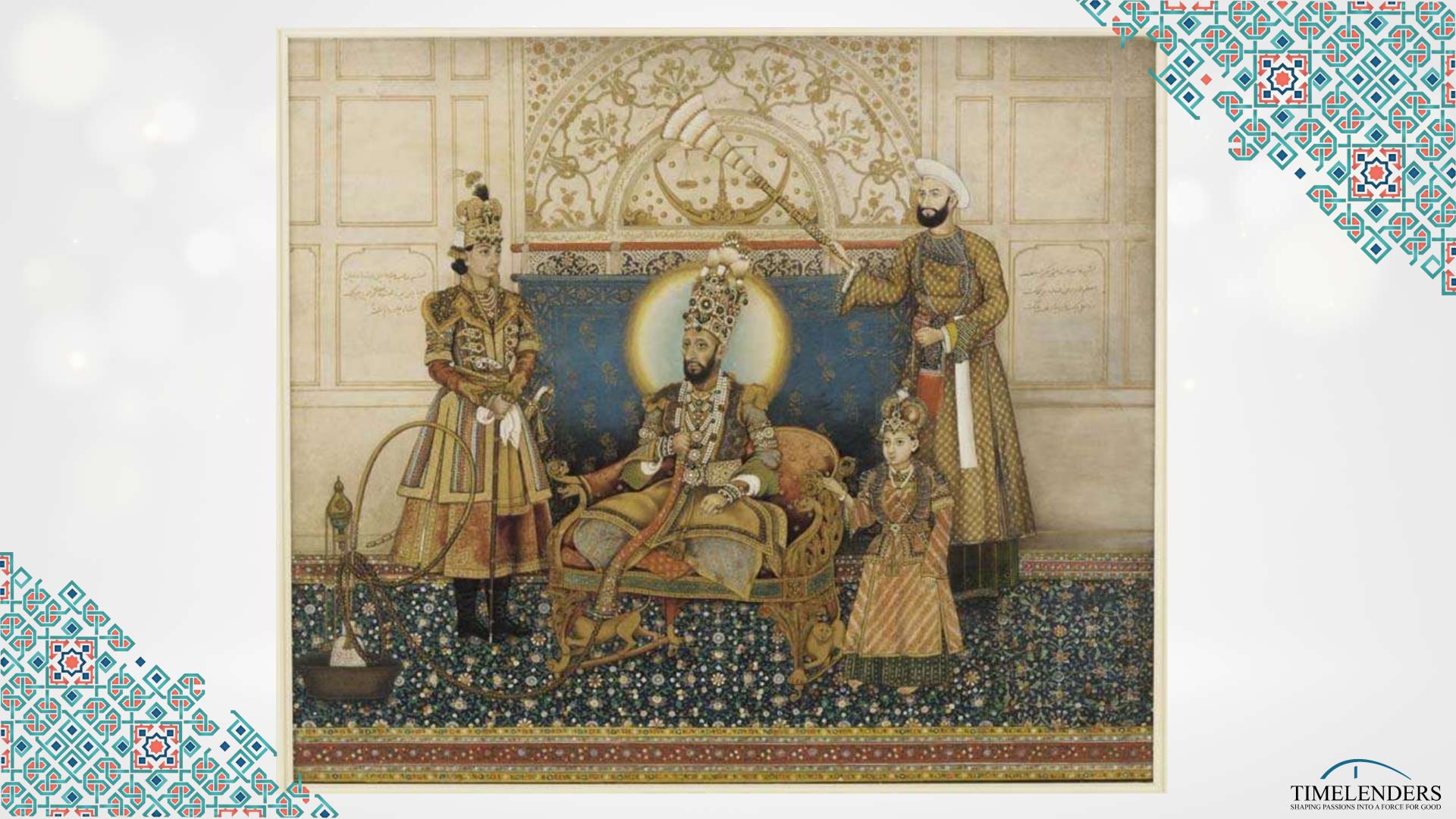
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#### THE LAST MUGHAL BY WILLIAM DALRYMPLE

- The British were the first to get up at 3:30 am, when the poetic mushairas of the Mughals were still in full flow in the Red Fort.
- A long session of drill in the cantonment parade ground lay ahead.
- Although the manager of Delhi Bank had been at work since 9 am, it was eleven o'clock before the first shopkeepers began turning up.
- Just as Chandni Chowk was waking up, in the cantonment the working day was already drawing to a close and most of the soldierly duties were already completed.
- Soon after 1 pm, as the British was heading back with day's work completed, things were just beginning to stir in the Red Fort.

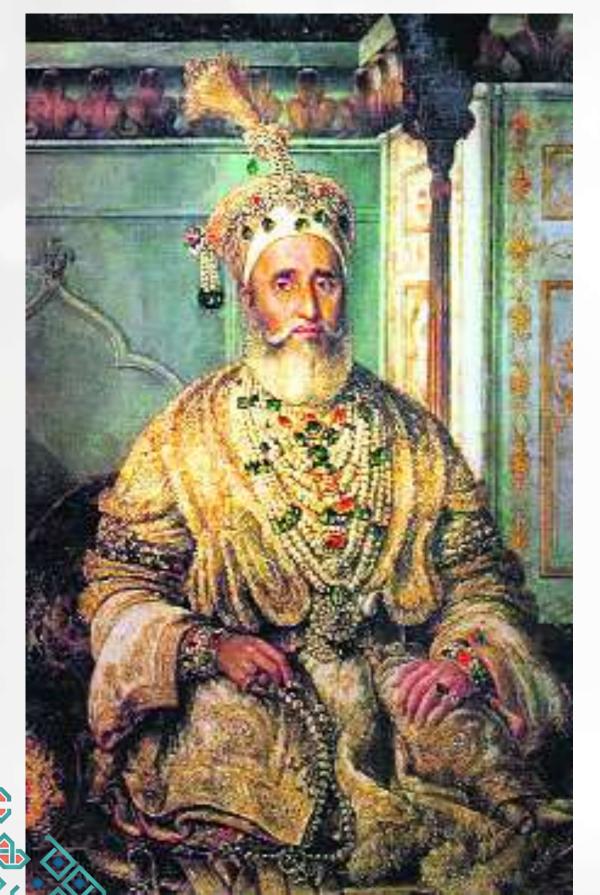






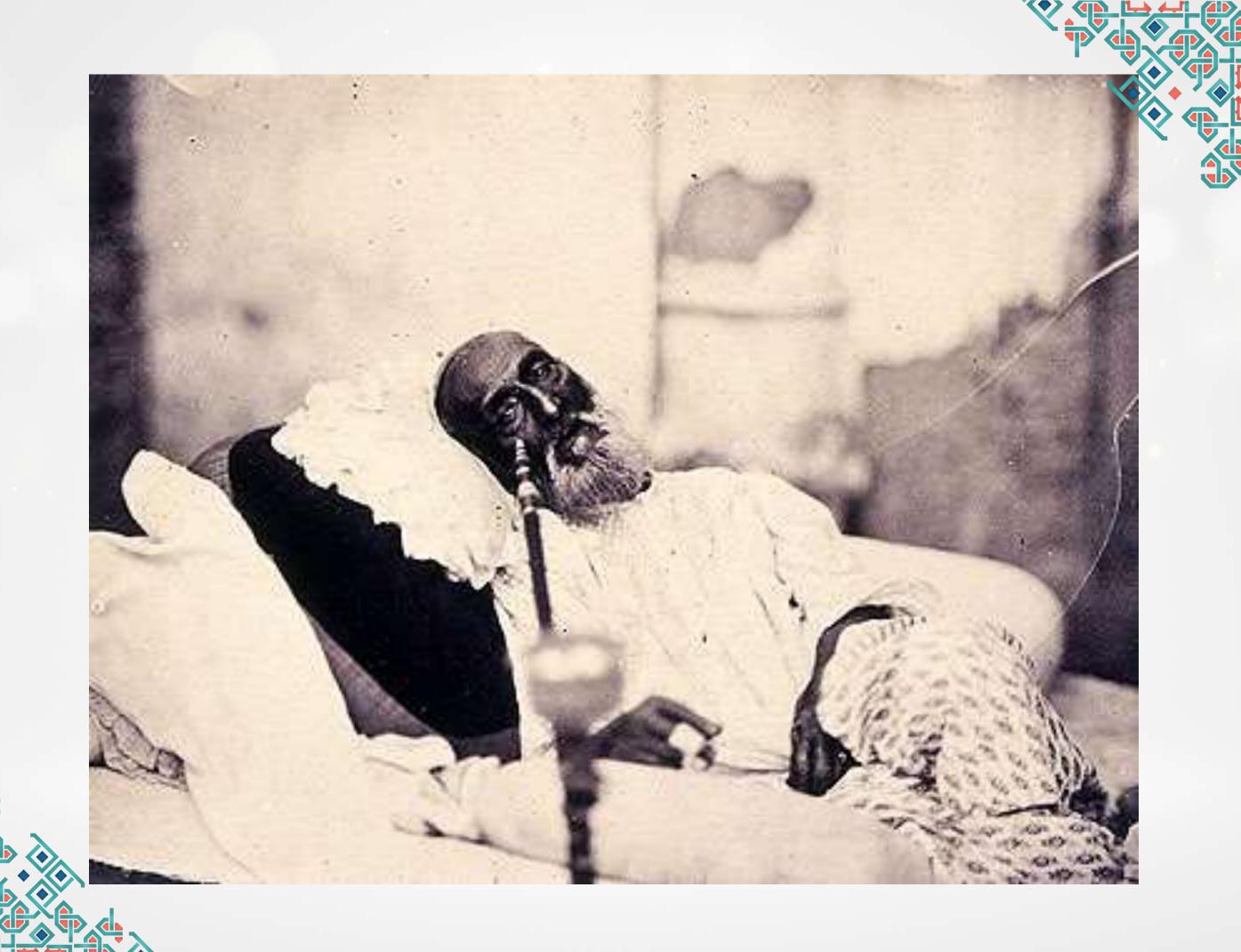










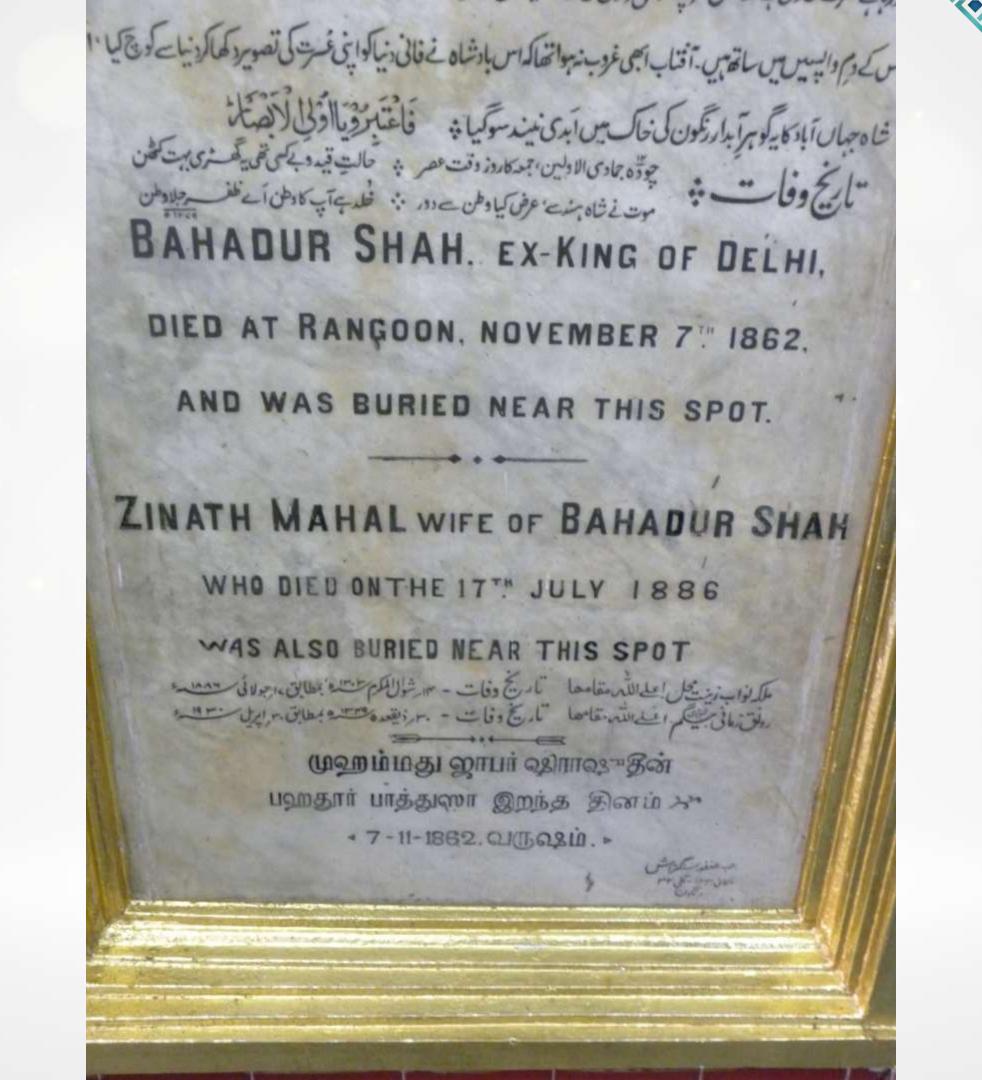




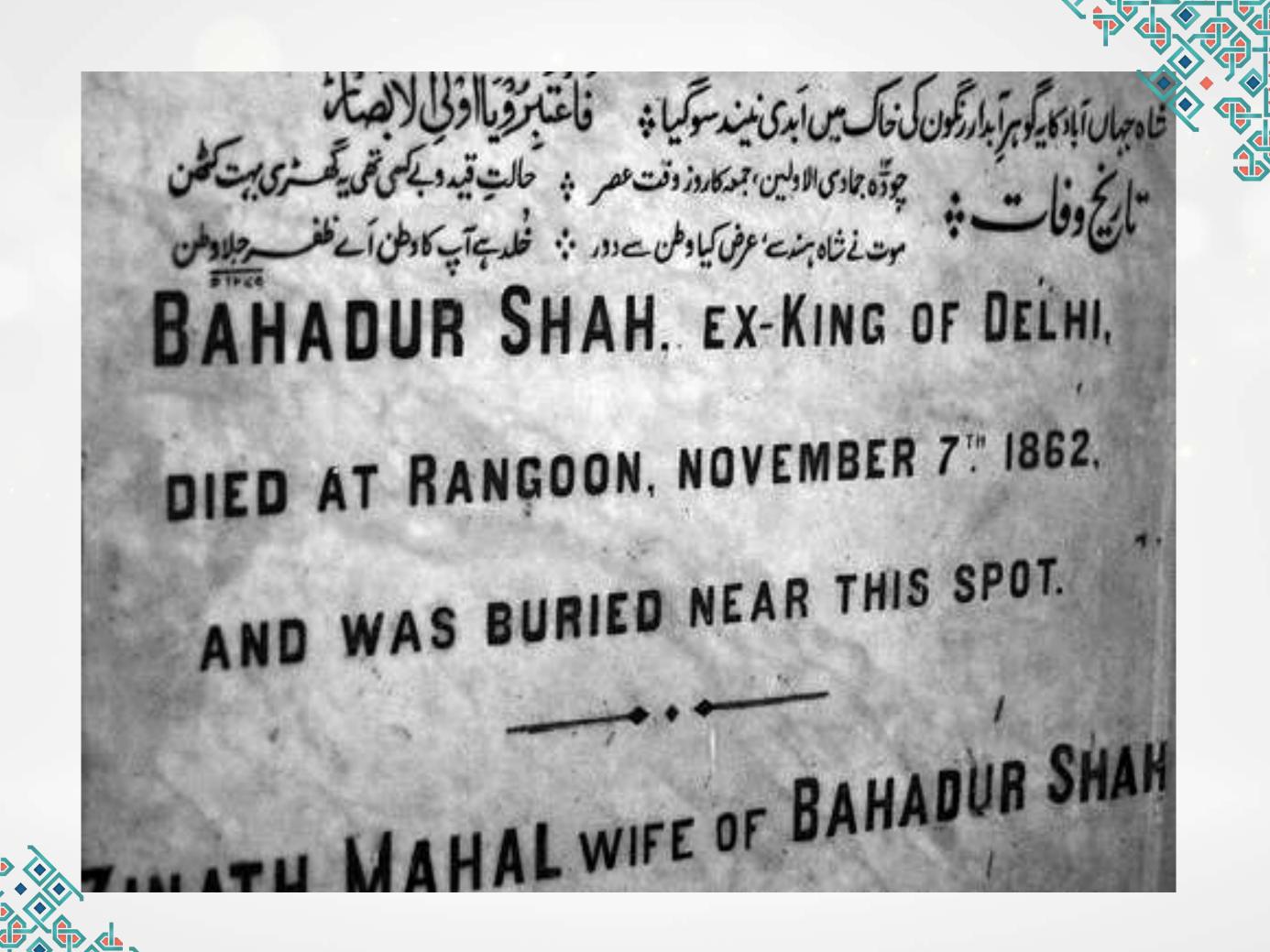








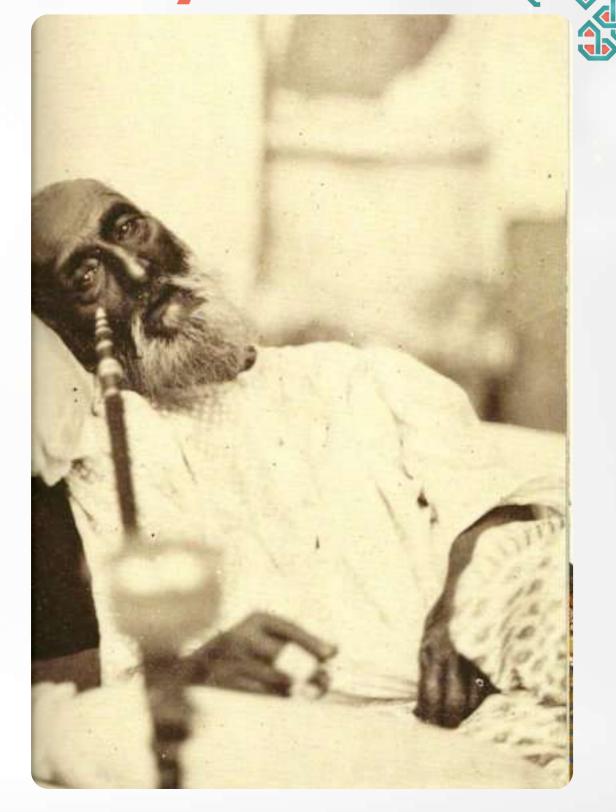






#### Bahadur Shah Zafar's Miserable Last Days

لگتانہیں ہے ول مر ااجڑے دیار میں کس کی بنی ہے عالم ناپائیدار میں ان حسر توں سے کہہ دو کہیں اور جابسیں ا تنی جگہ کہاں ہے دل داغدار میں كانتول كومت نكال جمن سے اوباغبال یہ بھی گلوں کے ساتھ بلے ہیں بہار میں بلبل کو باغباں سے نہ صباد سے گلہ قسمت میں قبیر لکھی تھی قصل بہار میں کتناہے برنصیب ظفرونن کے لیے دو گزر مین بھی نہ ملی کونے یار میں

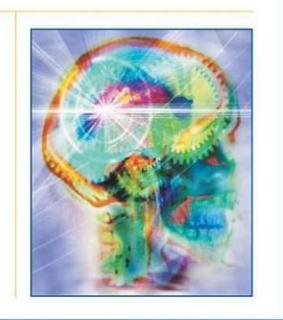




## Understanding the Brain

- A lobe-by-lobe tour of the brain and its biology
- Fascinating facts about the brain's many functions
- Brain boosting suggestions for measuring and increasing your intelligence

Arthur S. Bard, M.D. and Mitchell G. Bard, Ph.D.









#### 2 Part 1: The First Brain

Almost everything you read in the newspapers, and particularly the tabloids, is either old news in the medical community or unproven. As you can see from this handful of examples, stories about the brain range from the wildly optimistic to the depressing to the downright dangerous. You should always check with a physician concerning anything that sounds like an extraordinary development or medical cure.

#### The Great Unknown

The brain is complex, and over the centuries that complexity has been translated to knowledge about the structure and function of the brain. Still, we know remarkably little about

#### **Gray Matter**

"The brain is a world consisting of a number of unexplored continents and great stretches of unknown territory."

-Santiago Ramon y Cajal

the brain. In the next few chapters, we're going to share with you a good deal of what is known.

Some of your questions may be left unanswered because scientists and physicians have been searching for centuries to find answers to those same questions. No one truly understands the miraculous functioning of the brain, but you're going to be a whole lot closer in about 300 pages or so.

#### The Least You Need to Know

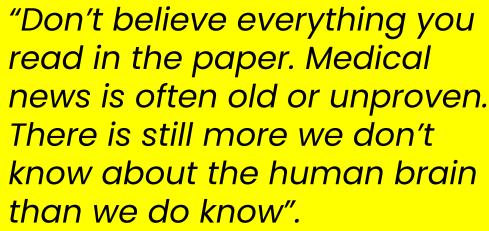
- Your brain is small and squishy; it is comprised mostly of water and uses one fifth of your body's blood and 20 percent of its energy.
- Darwin discovered that the fittest species survive and that related organisms descended from common ancestors.
- Most human brain development occurs in the womb and in the first two years of life. By age five, the brain is roughly the size and weight it will be for life.
- The brain is often compared to a computer, but it is far more complex than any machine.
- Don't believe everything you read in the paper. Medical news is often old or unproven. There is still more we don't know about the human brain than we do know.

Excerpt from the book:

#### **Understanding the Brain**

by Arthur S. Bard, M.D. Mitchell G. Bard, Ph.D.









#### Why do we sleep?

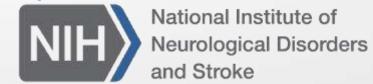


Sleep is an important part of your daily routine—you spend about one-third of you time doing it. Quality sleep—and getting enough of it at the right times—is as essential to survival as food and water. Without sleep, you can't form or maintain the pathways in your brain that let you learn and create new memories. Lack of sleep makes it harder to concentrate and respond quickly.

Sleep is essential to several brain functions, including how nerve cells (neurons) communicate with each other. In fact, your brain and body stay remarkably active while you sleep. Recent findings suggest that sleep plays a housekeeping role in removing toxins in your brain that build up while you are awake.

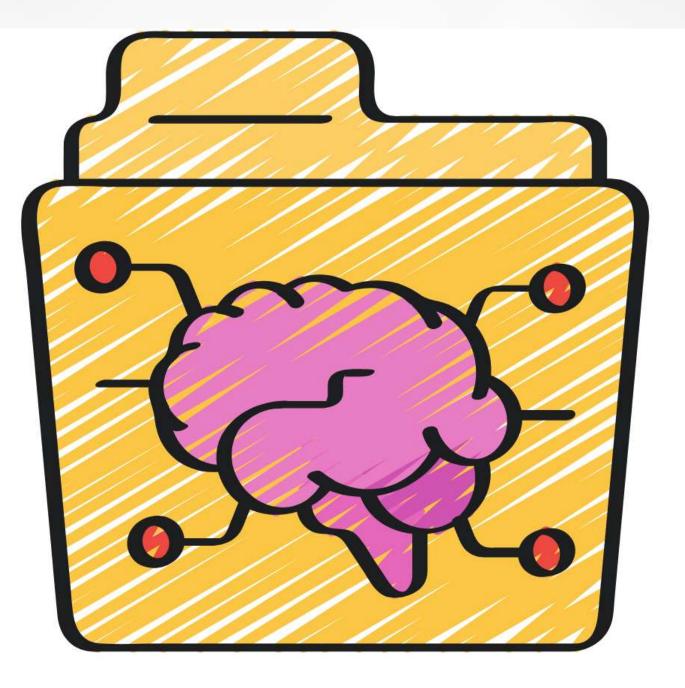
Everyone needs sleep, but its biological purpose remains a mystery. Sleep affects almost every type of tissue and system in the body—from the brain, heart, and lungs to metabolism, immune function, mood, and disease resistance. Research shows that a chronic lack of sleep, or getting poor quality sleep, increases the risk of health problems like high blood pressure, cardiovascular disease, diabetes, depression, and obesity.

Far from being a simple, passive activity, sleep is a complex and dynamic process. It affects how you function in ways that scientists are now beginning to derstand, with ongoing research shedding light on its many roles and functions.





#### #1: Information Consolidation Theory



Sleep helps our brain process, organize, and store information gathered during the day. It's like filing away memories and lessons so that we can retrieve them later. This helps in learning and decision-making.



#### #2: Brain Detox and Refueling Theory

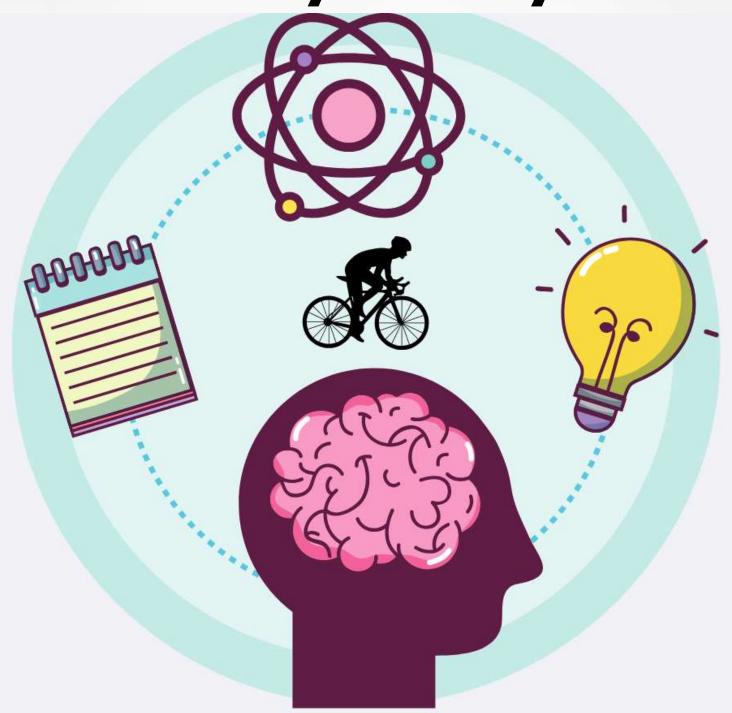


While we sleep, our brain cleanses itself of toxic waste products that build up during the day. It also recharges by restoring energy, making sure we are mentally ready for the next day.





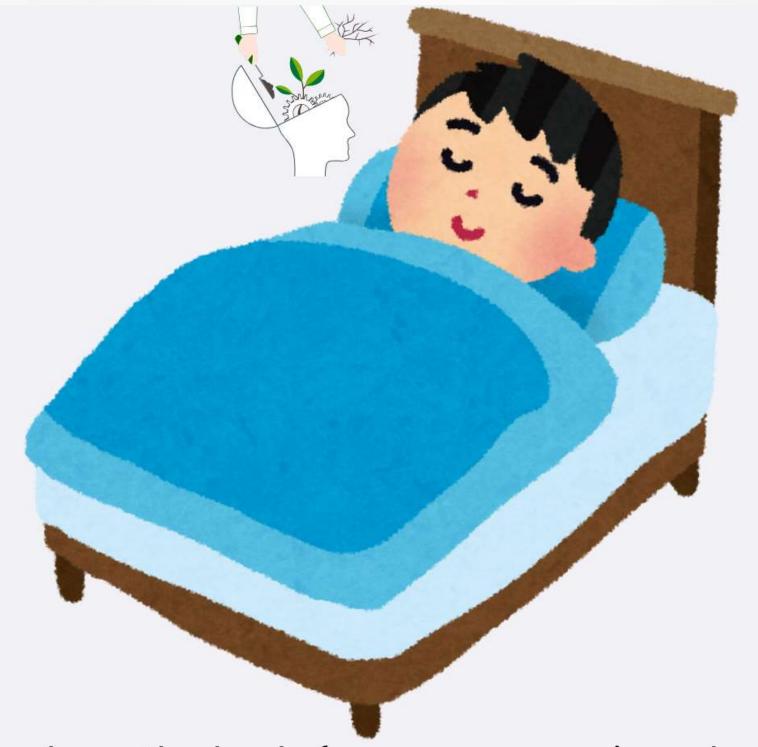
#### #3: Skill Mastery Theory



Sleep helps in mastering new skills, whether physical (like riding a bike) or mental (like solving puzzles). It's as if the brain practices while we are asleep, refining skills for future use.



#### #4: Body Restoration and Growth Theory



During sleep, the body focuses on repair and growth. It releases growth hormones that heal tissues, build muscle, and promote overall health, making sleep essential for physical recovery.



#### Sleep: A Means for Rest

Surat An-Naba; Ayah 9

وَّجَعَلْنَانُوْمَكُمْ سُبَاتًا ۞

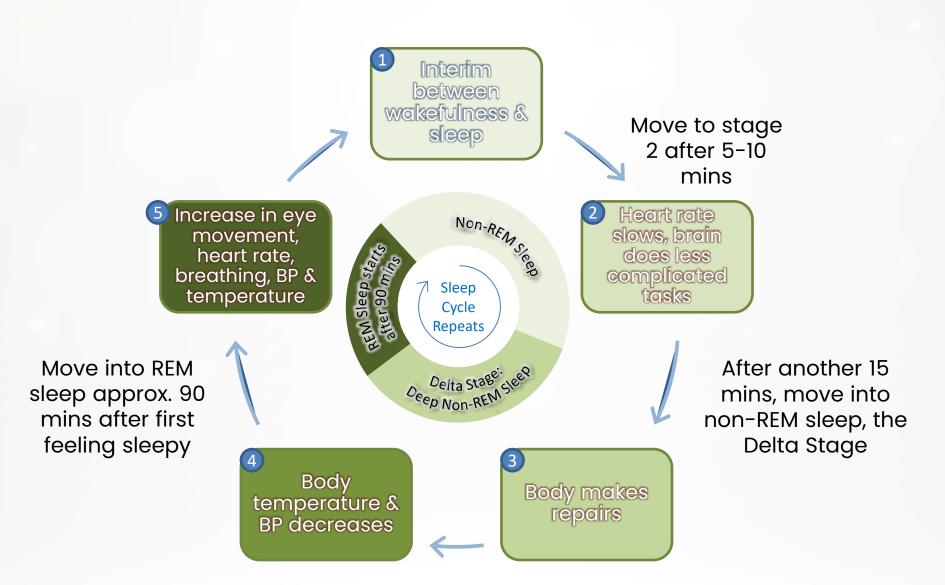
And made your sleep [a means for] rest.

اور ہم نے تمہاری نیند کو آرام کاسبب بنایا۔

پھرانسان کی راحت اور کار و بار کے لئے سازگار حالات پیدا کرنے کاذکر فرمایا، اسمیں ایک بیدار شاد ہے: جَعَلْمُنَا نَوُمَکُمُ سُبَاتًا، سُبَات سبت سے مشتق ہے جس کے معنی مونڈ نے اور قطع کرنے کے ہیں، نیند کو حق تعالی نے ایسی چیز بنایا ہے کہ وہ انسان کے مثمام ہموم و غموم اور افکار کو قطع کر کے اسکے قلب ودماغ کو ایسی راحت دیتی ہے کہ دنیا کی کوئی راحت اسکابدل نہیں ہوسکتی، اس لئے سُبات کا ترجمہ بعض حضرات نے راحت سے بھی کیا ہے۔



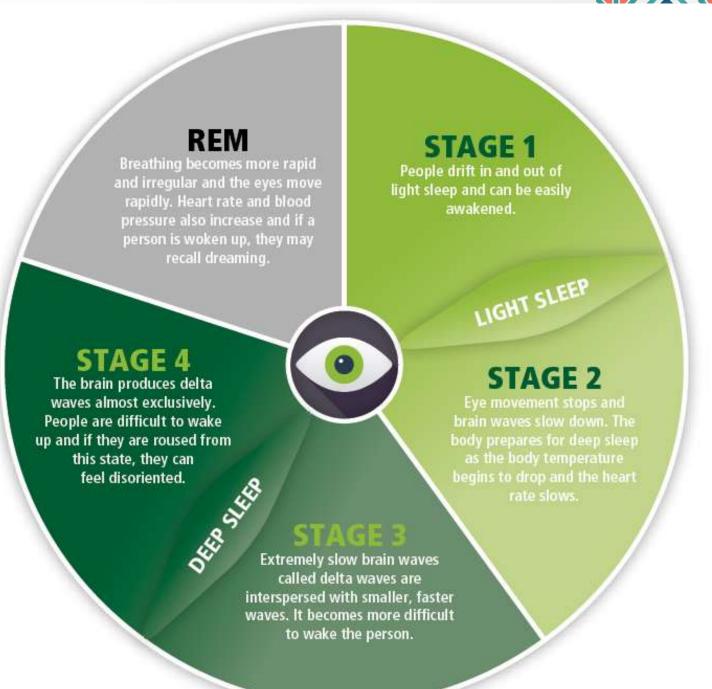
### Sleep Cycle





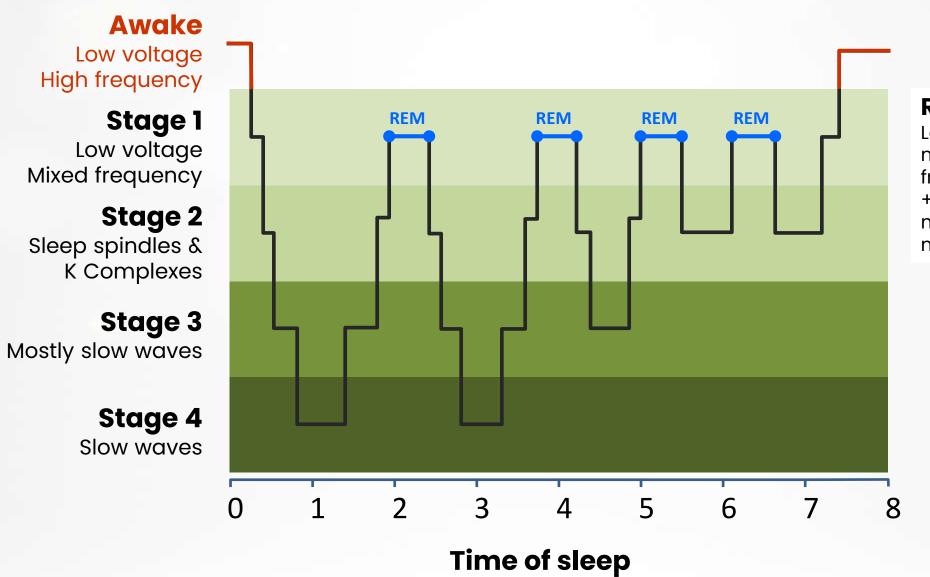
## Sleep Cycle







#### **Sleep Cycle**





Low voltage, mixed frequency + rapid eye movement & muscle atonia



#### Sleep Duration & Quality





## Circadian Rhythm (The Biological Clock)



Circadian Rhythm is the natural, internal clock that regulates the sleep-wake cycle over a 24-hour period. It helps control when we feel awake and when we feel sleepy based on environmental cues like light and darkness.





## Circadian Rhythm (The Biological Clock)

 There is a correlation between circadian rhythm and heart disease, as cholesterol and other hormones are linked to circadian rhythm.

Cortisol, a stress hormone, is also related to light.

 When one's circadian rhythm is disrupted, sleeping and eating patterns can run amok.<sup>1</sup>

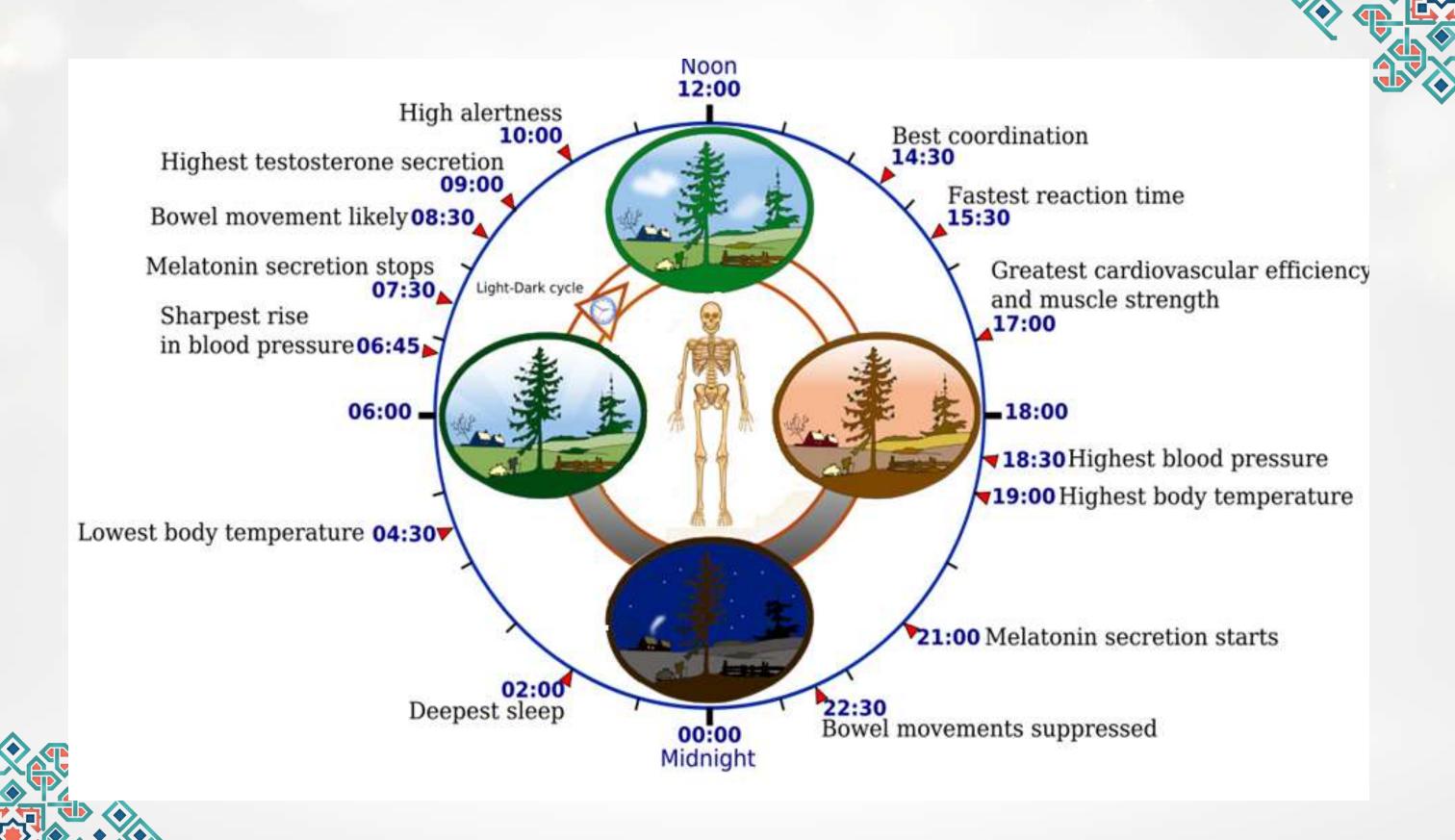
 A disrupted circadian rhythm can have effects like increasing the chances of cardiovascular issues, obesity, and a correlation with neurological problems like depression and bipolar disorder.<sup>1</sup>

**Circadian Rythm** 





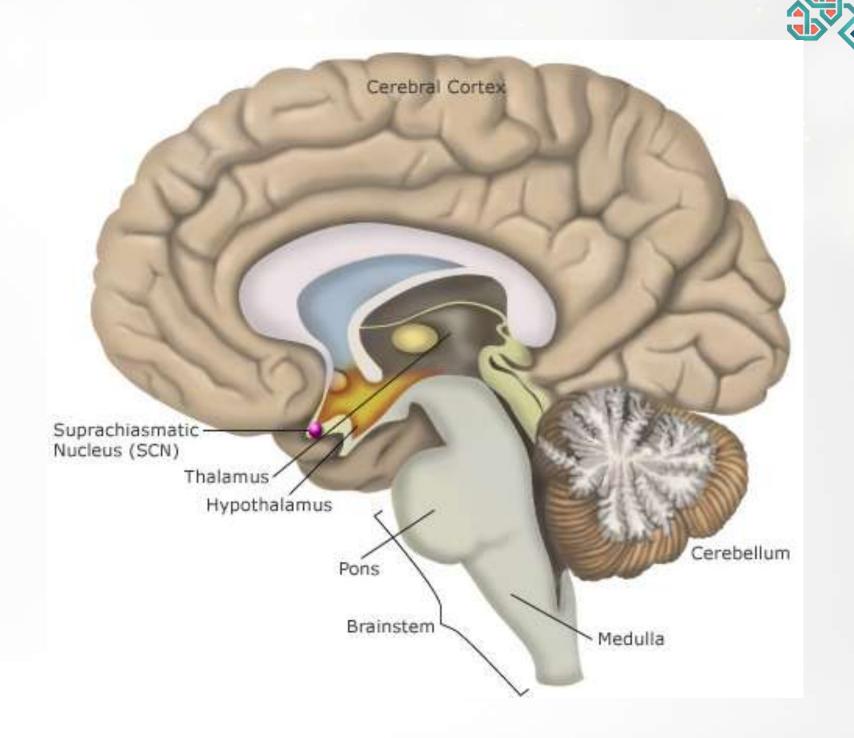
#### Circadian Rhythm





### Suprachiasmatic Nucleus (SCN)

- Situated in the hypothalamus immediately above the optic chiasm, the SCN generates a circadian rhythm of neuronal and hormonal activities
- SCN regulates many different body functions over a 24-hour period.







#### Serotonin – "A chemical of happiness"

- Serotonin is a chemical in the brain that helps regulate mood, emotions, and sleep patterns.
- It helps improve mood and feelings of well-being, often called the "feel-good" chemical.
- Serotonin is a key player in controlling sleep, as it aids in the production of melatonin, the hormone that regulates the sleep-wake cycle.
- During the day, serotonin keeps us awake and alert; at night, it helps signal
  the body to transition into sleep mode.
- Regular exposure to sunlight, a balanced diet, and physical activity can help maintain healthy serotonin levels and improve sleep quality.



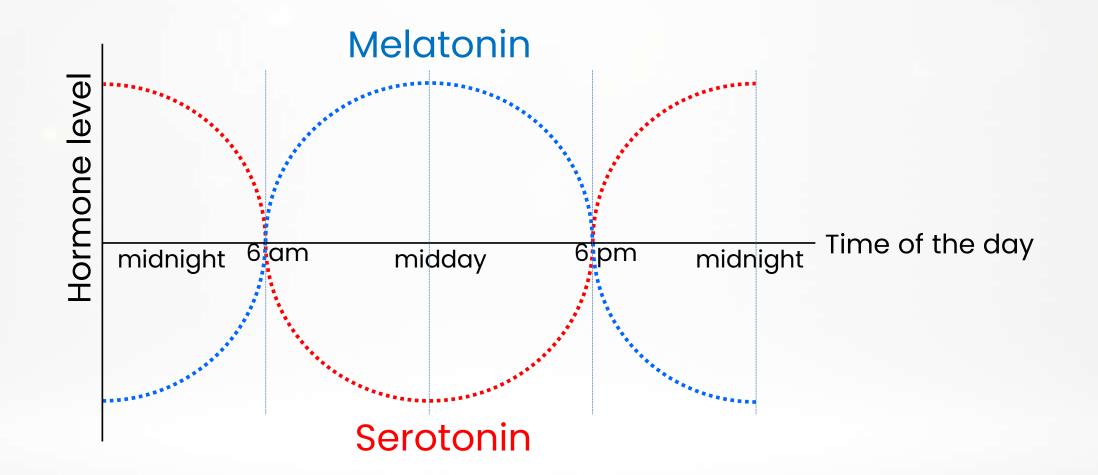
#### Melatonin – "The Hormone of Sleep"

- Melatonin is a hormone produced by the pineal gland in the brain, which helps regulate the sleep-wake cycle.
- The body produces more melatonin in response to darkness, signaling that it's time to sleep.
- Melatonin helps control your sleep patterns by making you feel sleepy and preparing your body for rest.
- Exposure to light, especially sunlight, decreases melatonin production, helping you stay awake and alert during the day.
- People with sleep problems sometimes use melatonin supplements to help regulate their sleep cycle, especially if it's disrupted by jet lag or shift work.



#### Bio-rhythm: Balancing Activity & Rest

- The bio-rhythm is regulated by serotonin and melatonin
- The hormone levels are affected by the amount of light.
   Serotonin levels increase by abundance of light and melatonin is increased by the lack of light.



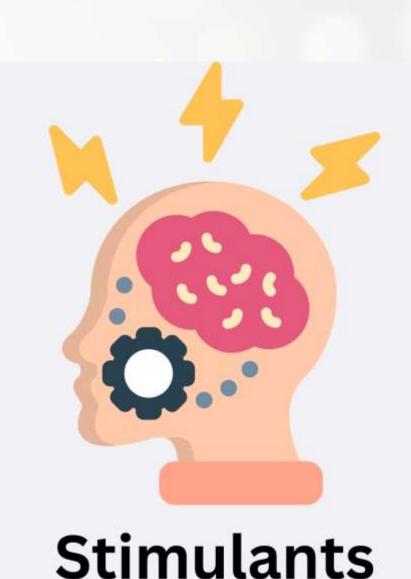


# Bio-rhythm: Balancing Activity & Rest Intensity Light Serotonin Time



#### Stimulants

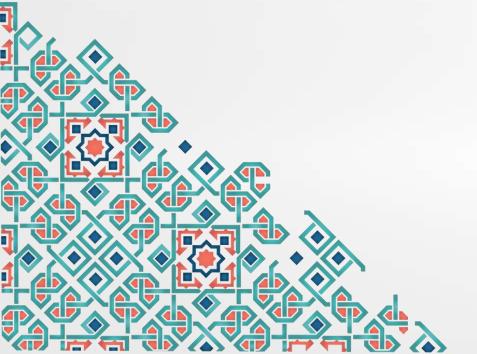
- Stimulants are drugs that temporarily increase alertness and wakefulness.
- They usually have increased side effects and are widely used throughout the world as prescription medicines and as illicit substances of recreational use or abuse.
- Stimulants are used both individually and clinically for therapeutic purposes in the treatment of a number of indications, including the following:
  - To counteract lethargy and fatigue
  - To reduce sleepiness and to keep the person awake when necessary.
  - To decrease appetite and promote weight loss (phentermine).
  - To improve concentration and focus while at work or school, especially for those with attentional disorders such as ADHD.
  - Occasionally, they are also used off-label to treat clinical depression.





#### Stimulants - Caffeine

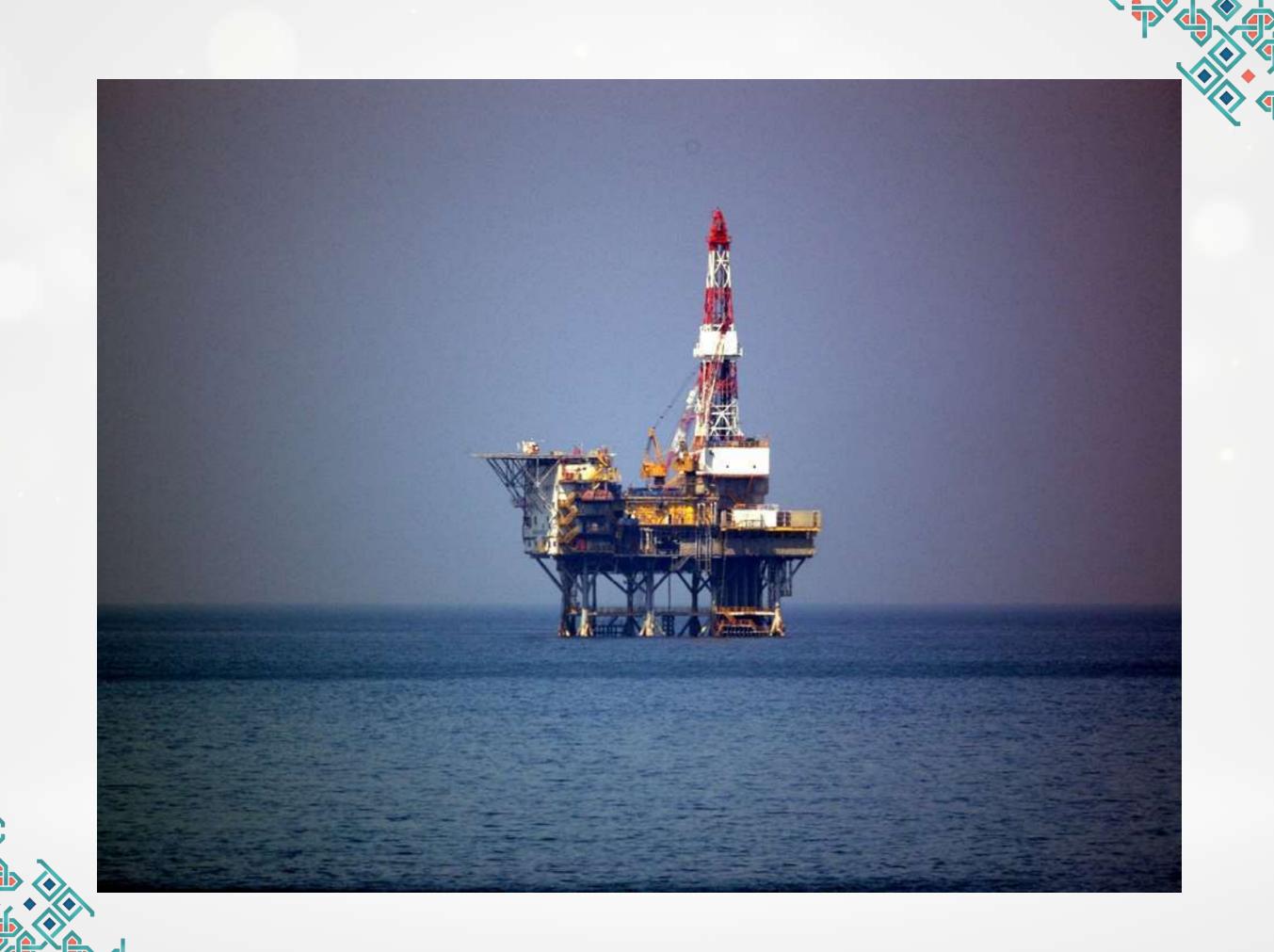
Caffeine is the world's most widely used psychoactive drug and by far the most common stimulant.











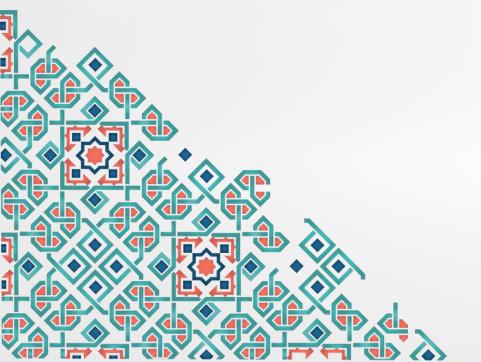






#### Positive aspects of Caffeine

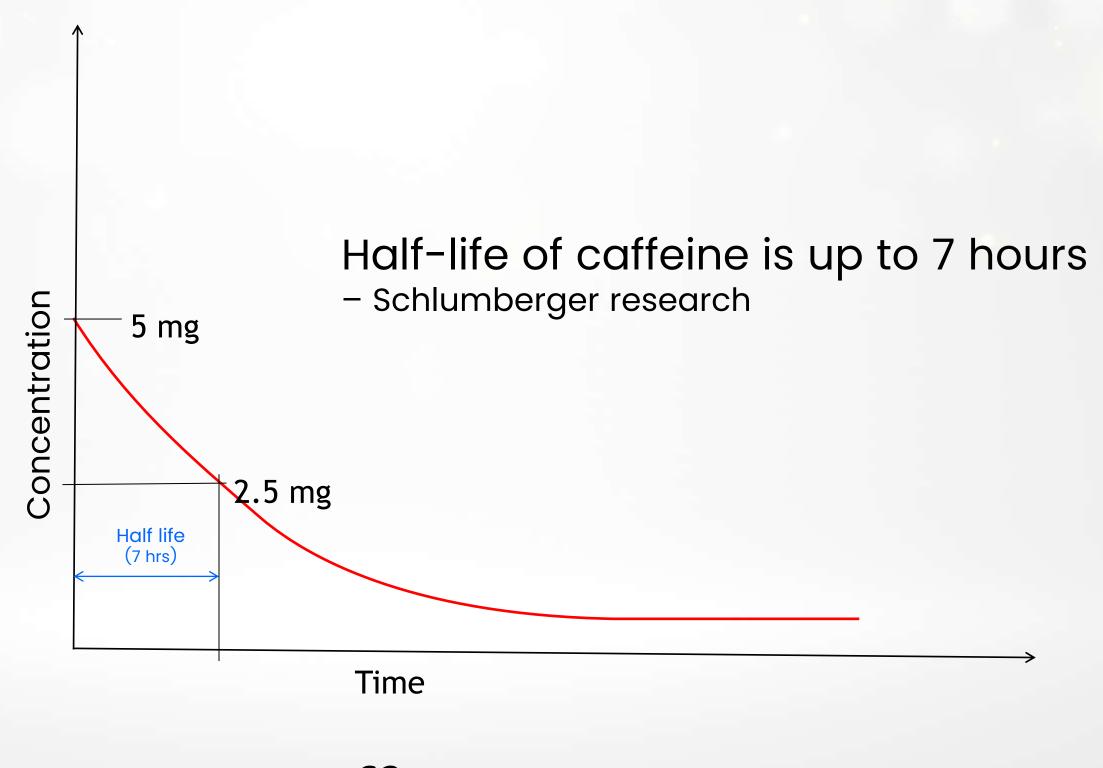
- Improves alertness
- Increases capacity for muscular work
- Improves motor-skill coordination
- Better performance on mental tasks
- Improves reaction time
- Works fast (15 45 minutes)

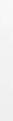




## Negative aspects of caffeine

 Half-life of up to 7 hours 1

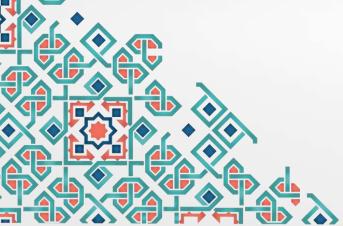






#### Negative aspects of caffeine

- Half-life of up to 7 hours
- Build-up of tolerance <sup>1</sup>
- Gastrointestinal disturbances
- Increases restlessness 1
- Disrupts sleep architecture 1
- More than 4 cups of coffee linked to early death.<sup>2</sup>
- Caffeine could reduce fertility in women by about 27%.
- 1 Schlumberger research
- 2 Mayo Clinic-partnered study
- 3 The University of Nevada School of Medicine study





#### Impact of Caffeine on Iron absorption

In Pakistan as a clinician for children and student we are observing greater incidence of "Iron deficiency Anemia" (Lack of Hemoglobin / Blood) which is increasing (about 40 to 60%) in children which may be due to poor intake of iron rich foods or prolonged milk intake inhibiting appetite.

But if some how they do take some food rich in iron as egg, meat, pulses, lobia (kidney beans), green leafy vegetables and have tea immediately or within an hour of consumption then iron absorption is inhibited which badly impacts oxygen carrying capacity of blood and clinically presents as: Irritability, poor concentration, poor learning and understanding in schools, poor appetite, and poor sleep-in children.

In women and mothers, 60 to 80 % are anemic/Iron deficient for which poor dietary in-take, regular/cyclic blood loss and consumption of tea, and beetle nut (Supaari) are the potent reasons.

Dr. Sameena Afghan Pediatrician



#### Inhibition of food iron absorption by coffee

Morck TA, Lynch SR, Cook JD. **Abstract** 

Dual isotope studies were performed in iron replete human subjects to evaluate the effect of coffee on nonheme iron absorption. A cup of coffee reduced iron absorption from a hamburger meal by 39% as compared to a 64% decrease with tea, which is known to be a potent inhibitor of iron absorption. When a cup of drip coffee or instant coffee was ingested with a meal composed of semi-purified ingredients, absorption was reduced from 5.88% to 1.64 and 0.97%, respectively, and when the strength of the instant coffee was doubled, percentage iron absorption fell to 0.53%. No decrease in iron absorption occurred when coffee was consumed 1 h before a meal, but the same degree of inhibition as with simultaneous ingestion was seen when coffee was taken 1 h later. In tests containing no food items, iron absorption from NaFeEDTA was diminished to the same extent as that from ferric chloride when each was added to a cup of coffee. These studies demonstrate that coffee inhibits iron absorption in a concentration-dependent fashion.

The American Journal of Clinical Nutrition: 1983 Mar;37(3):416-20



#### Fresh Mind: Neural Activity

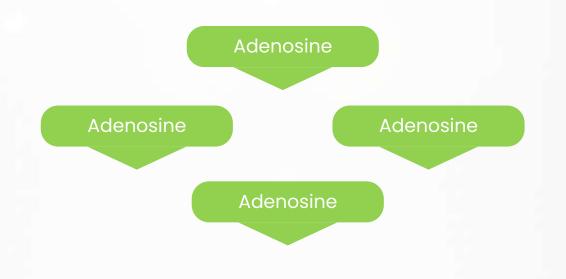






## Tiredness: Adenosine built up with time Adenosine Adenosine Adenosine Adenosine Receptor 68

### Tiredness: Adenosine Binds with neural Receptors







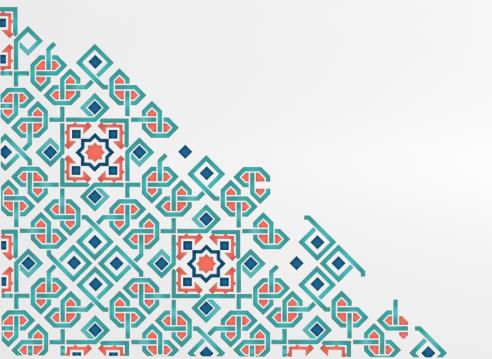
## Caffeine Molecules are very similar to Adenosine Adenosine Adenosine Adenosine Adenosine Caffeine Receptor

Caffeine block adenosine from the receptors.



### Caffeine: Adrenaline Effect

- Caffeine causes the secretion of stress hormones such as Adrenaline.
- Improves Performance.







He's one of the businessmen in town. While his door may say Office Hours 2 to 4, he's actually on call 24 hours a day.

The doctor is a scientist, a diplomat, and a friendly sympathetic human being all in one, no matter how long and hard his schedule.



According to a recent Nationwide survey:

# MORE DOCTORS SMOKE CAMELS THAN ANY OTHER CIGARETTE

DOCTORS in every branch of medicine—113,597 in all—were queried in this nationwide study of cigarette preference. Three leading research organizations made the survey. The gist of the query was—What cigarette do you smoke, Doctor?

The brand named must was Camel!

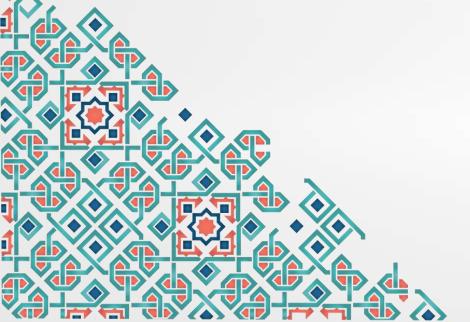
The rich, full flavor and cool mildness of Camel's superb blend of costlier tobaccos seem to have the same appeal to the smoking tastes of doctors as to millions of other smokers. If you are a Camel smoker, this preference among doctors will hardly surprise you. If you're not—well, try Camels now,

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## NOW...Scientific Evidence on Effects of Smoking!

A medical specialist is making regular bimonthly examinations of a group of people from various walks of life. 45 percent of this group have smoked Chesterfield for an average of over ten years.

After ten months, the medical specialist reports that he observed...

no adverse effects on the nose, throat and sinuses of the group from smoking Chesterfield.

# MUCH MILDER CHESTERFIELD IS BEST FOR YOU

Copyright 1953, Lucery & Myssa Tonecco C



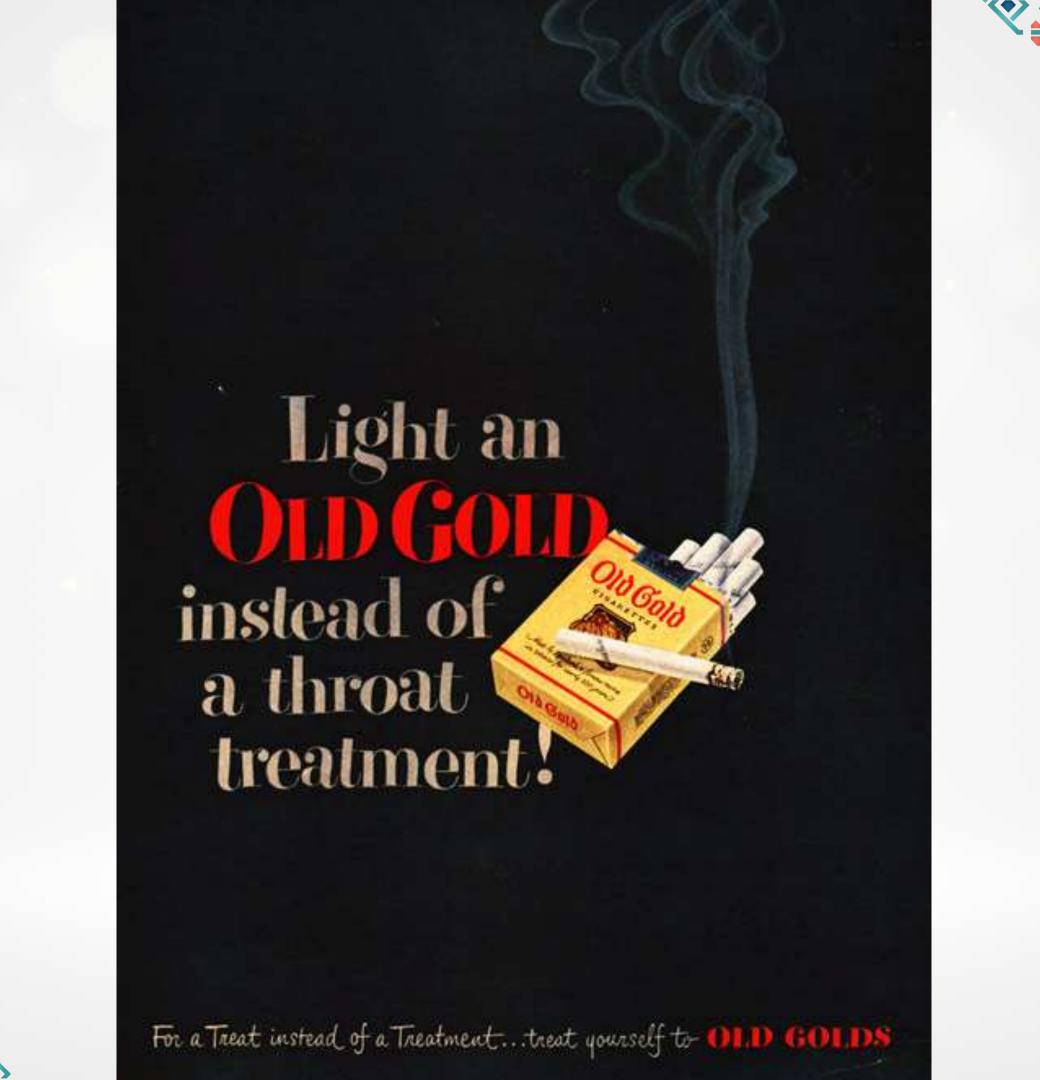




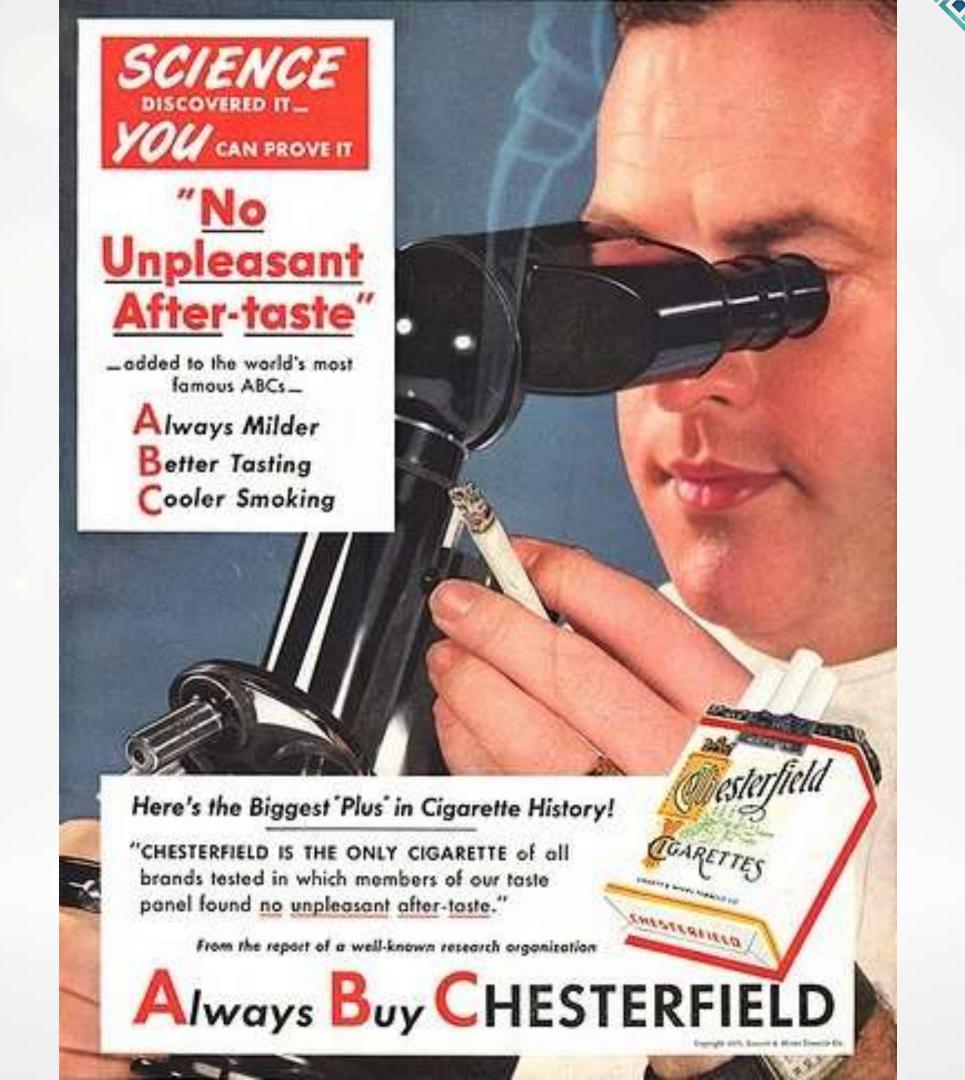




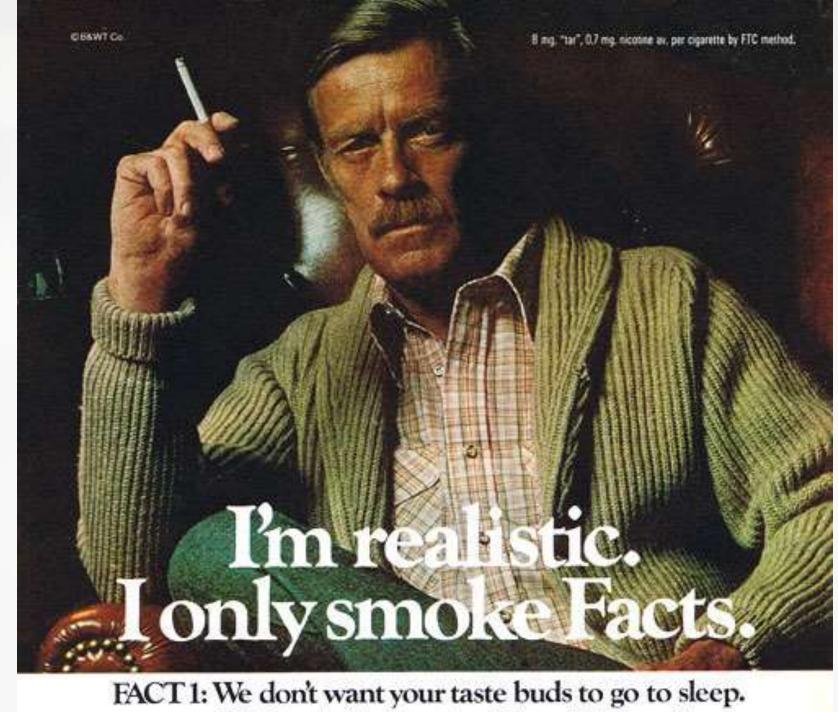












FACT reduces the aldehyde' gases that we believe muddy the flavor of fine tobaccos so you can enjoy wide-awake taste.

#### FACT 2: We have smoke scrubbers in our filter.

These Purite® scrubbers work like magnets to reduce these same aldehydes and let the fine flavor come through.

#### FACT 3: We have a patent on flavor in low 'tar' cigarettes: #3828800.

Our Purite filter helps deliver flavor in a way so new we've been able to patent it.

Add it all up. Low gas, low 'tar,' great flavor. That's a FACT.

Township took Contoughly back, Accepts

Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.

Available in regular and menthol.

**FACT** 









## "I'll Be Right Over!"

#### ...24 hours a day your doctor is "on duty" ... guarding health ... protecting and prolonging life ...

more devotion to the oath he has taken, he's back at that job again ...

have been written about the "man in white" invent. And he asks no special credit. When and his devotion to duty. But in his daily there's a job to do, he does it. A few winks routine he leves more drama, and dosplays of sleep ... a few puffs of a eigerette ... and



•Plays ... novels ... motion pictures ... have been written about the "man in white" and his demotivation to duty. But in his daily routine he lives more drama and displays more devotions to the oath he has taken, than the most imaginative mind could ever invent. And he asks no special credit. When there's a job to do, he does it. A few winks of sleep... a few puffs of a cigarette... and he's back at that job again...



#### According to a recent Nationwide survey:

#### MORE DOCTORS SMOKE CAMELS THAN ANY OTHER CIGARETTE!

name the cigarette they them- other cigarette? selves preferred to smoke.

orgoons, specialists -ductors in for yourself.

Transe of America's leading every branch of medicine! A independent research organi- Results! More doctors named irations asked 113,597 doctors to Cassel as their smoke than any

Yes, a doctor, too, smokes for The answers came in by the pleasure. Full flavor, coolness, thousands... from doctors in big - and mildness mean just as much cities, in small towns....from gen- to him as they do to any other eral physicians, diagnosticians, smoker. Smoke Camels and sor

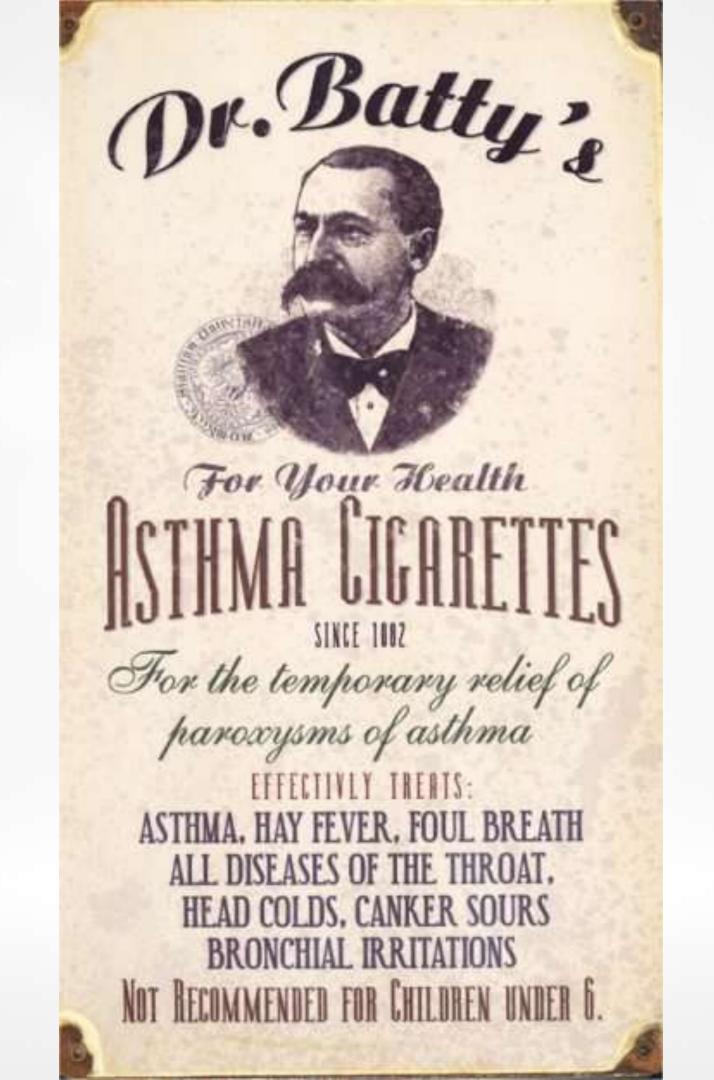
There of America's leading independent research organizations asked 113,597 doctors to name the cigarette they themselves preferred to smoke.

They answers came in by the thousands ... from doctors in big cities, in small towns ... from general physicians, diagnosticians, surgeons, specialists ... doctors in every branch of medicine!

Results! More doctors named Camel as their smoke than any other cigarette! Yes, a doctor too, smokes for pleasure. Full flavor, coolness, and mildness means just as much to him as they do to any other smoker. Smoke Camels and see for yourself.

















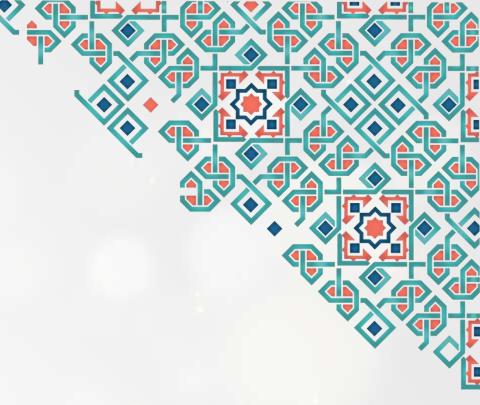






































#### Steps to determine the optimum level of sleep

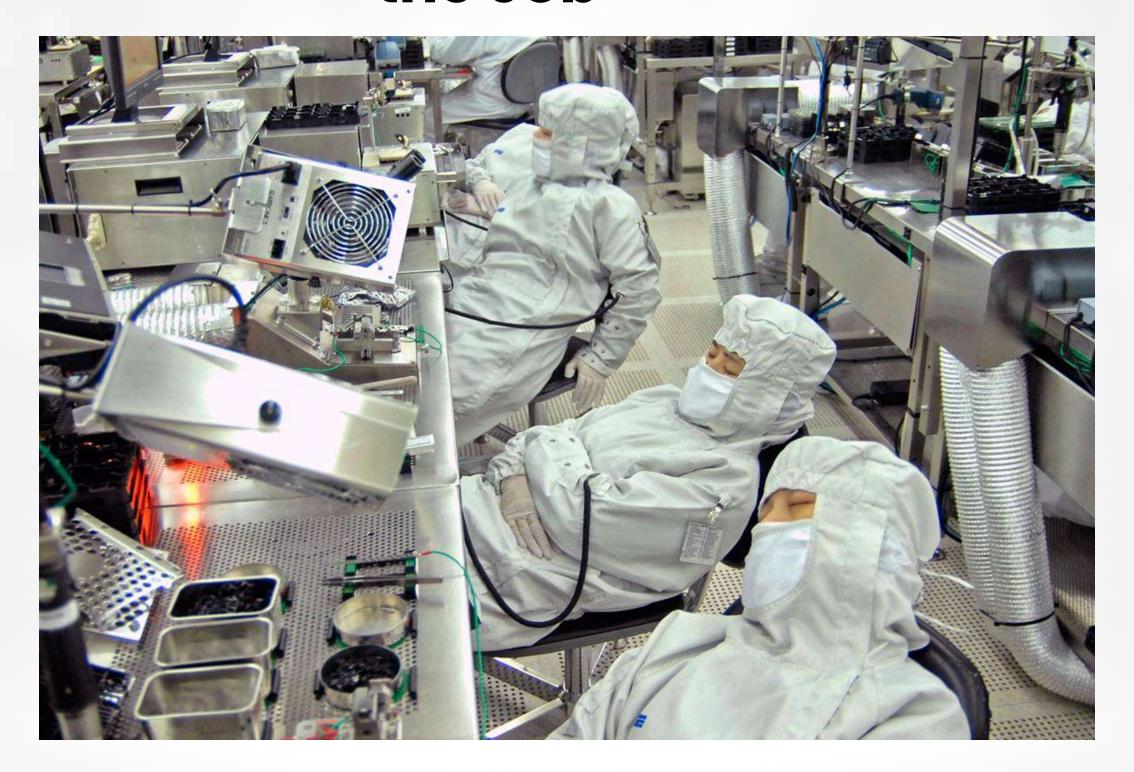
Follow these 5 steps:

- Stop sleeping after Fajr
- Start doing Qailoolah
- Develop regularity in life
- Become physically and mentally fit by focusing on exercise, diet and recreation
- Stop all stimulants

Once done, start decreasing your sleep by 15 minutes intervals over a few days. The point after which you don't feel fresh, and alert is your optimum level.



## China Factory Workers Encouraged to Sleep on the Job



Workers nap during their shift at a computer hardware factory in the manufacturing city of Dongguan, China

Reference: NBC News - 8:57 AM ET, 11 December, 2014



### A sleep on the job by order of the boss: Chinese factory workers given half hour nap after lunch breaks



Chinese electronics factory workers Peasant-workers at a plant in Guangdong, China Reference: Richard Shears For The Daily Mail – 01:23 GMT, 11 December, 2014





