



TIMELENDERS

SHAPING PASSIONS INTO A FORCE FOR GOOD



قال رسول الله صلى الله عليه وسلم:

بورك لامتى فى بكورها

المعجم الكبير لطبرانى

عن صخر الغامدى رضى الله عنه قال: قال رسول الله صلى الله عليه وسلم: اللهم بارك لامتى فى بكورها.

حضرت صخر غامدىؓ فرماتے ہیں کہ رسول اللہ ﷺ نے یہ دعا کی: اے اللہ! میری امت کے سویرے کے وقت میں برکت عطا فرما۔

(جامع ترمذی)

قال رسول الله صلى الله عليه وسلم: الصبيحة تمنع الرزق

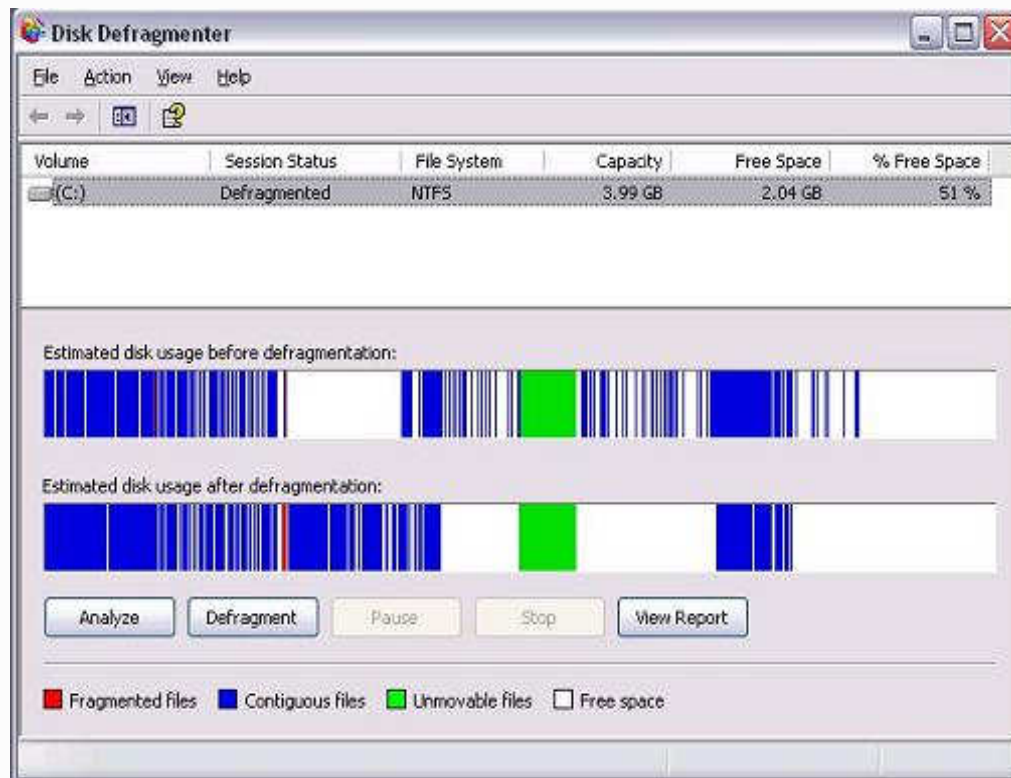
مسند احمد

قال رسول الله صلى الله عليه وسلم: استعينوا بطعام السحر على صيام النهار وبالقيولة على قيام الليل

ابن ماجه

Theories

#1: Sleep allows the brain to review and consolidate all the streams of information it gathered while awake.

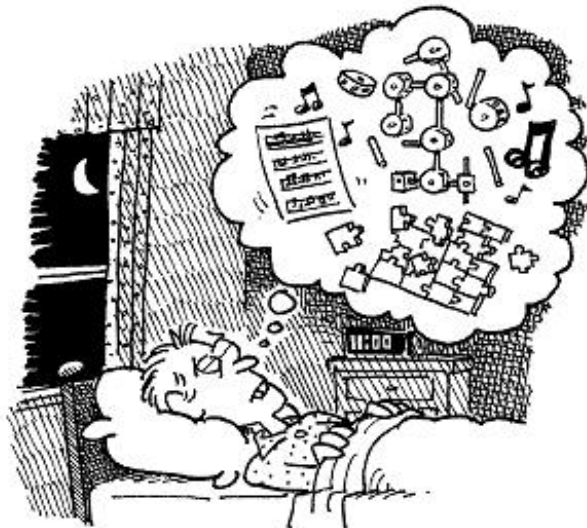


Theories

#2: We sleep in order to allow the brain to stock up on fuel and flush out wastes.

Theories

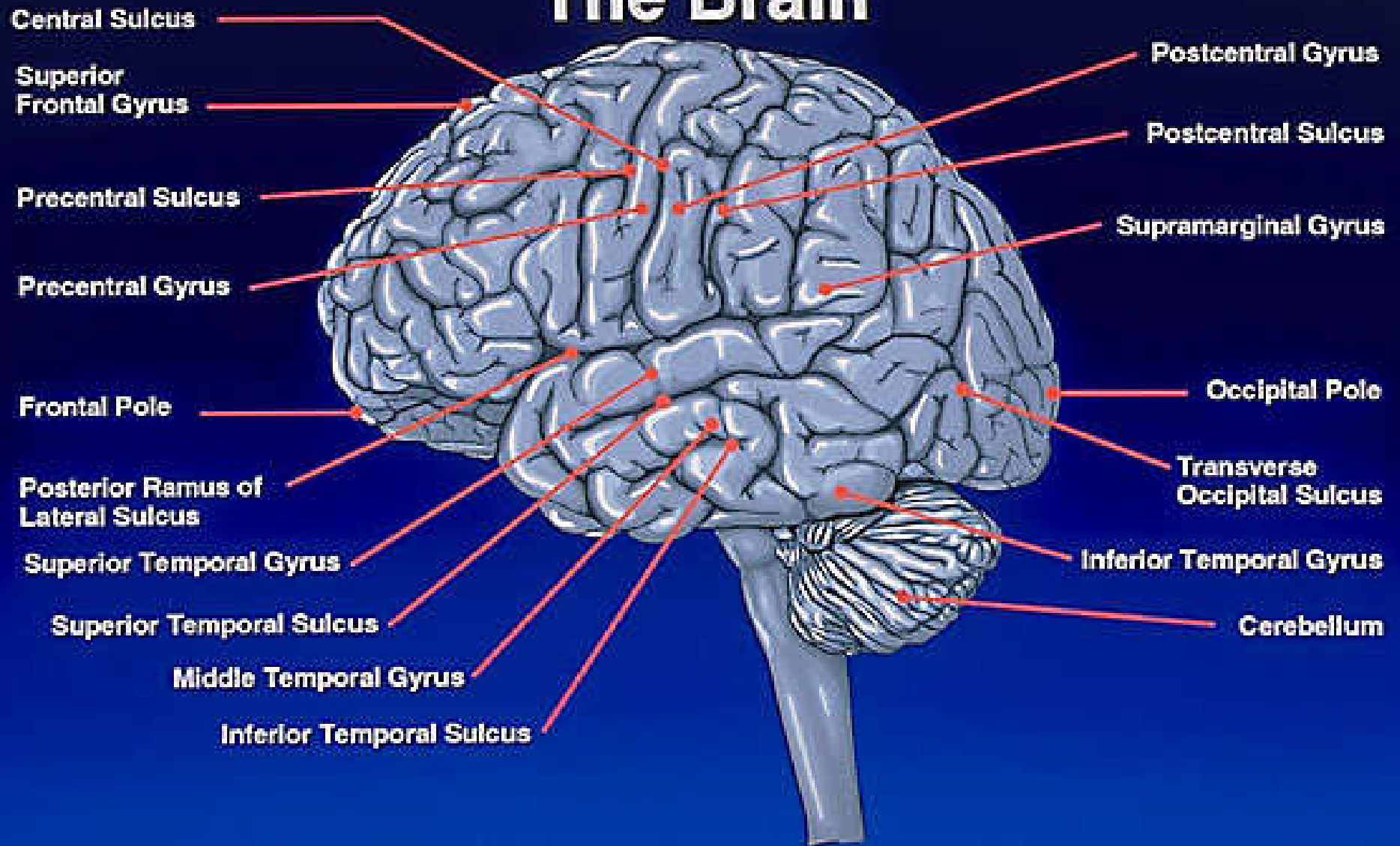
#3: Sleep operates in some mysterious ways to help you master various skills, such as how to play a piano and ride a bike.



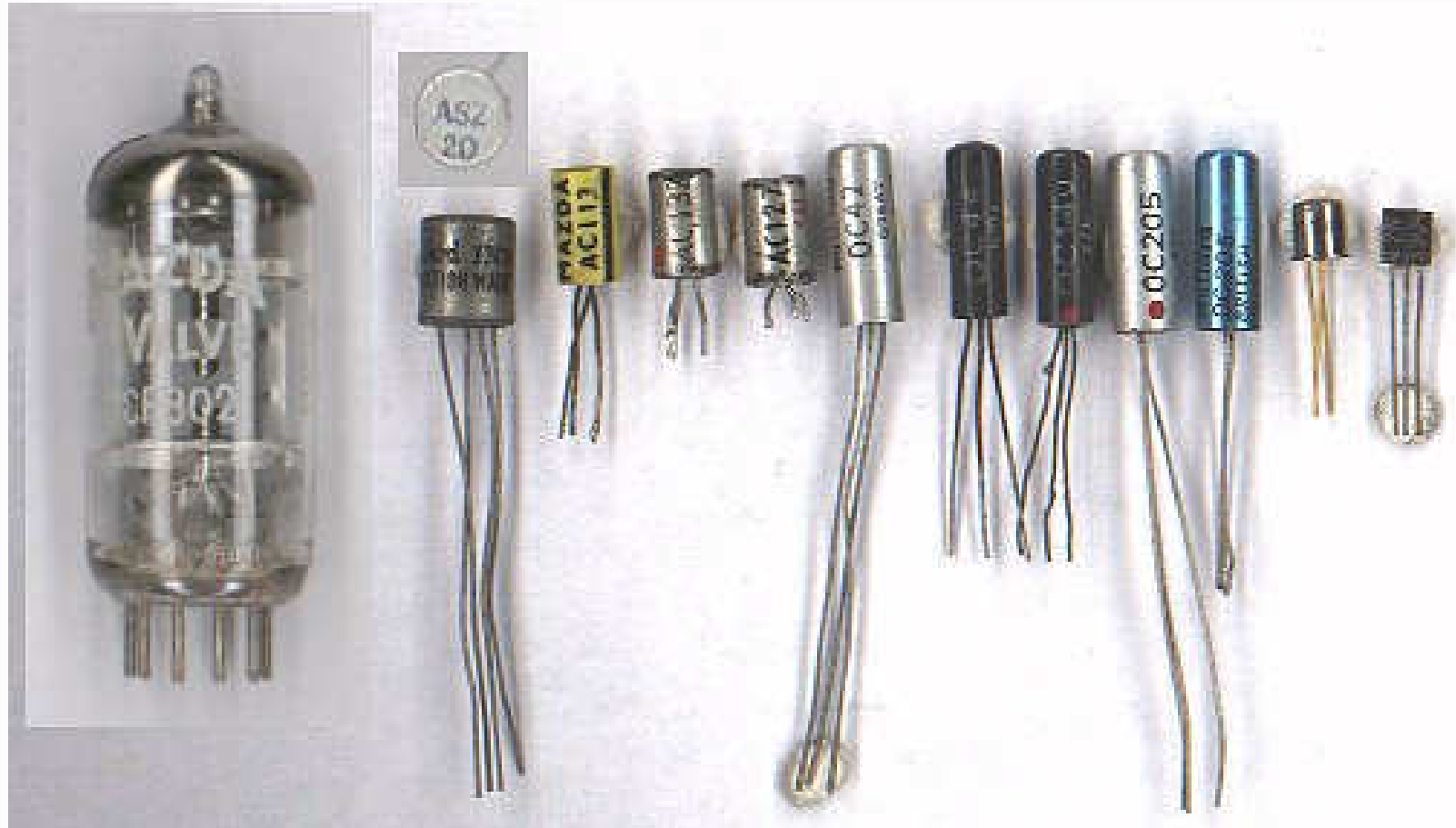
How to get a good night's sleep

- Set your body clock by keeping the same sleep schedule, seven days a week.
- Create a conducive environment - cool, dark, and uncluttered.
- No Caffeine in the p.m. Finish eating at least three hours before bedtime.
- Have hot milk at night.
- No computers, TV or arguments half an hours before bed.
- If you're still awake after 20 minutes in bed, get up, go to another room and do some quiet activity.

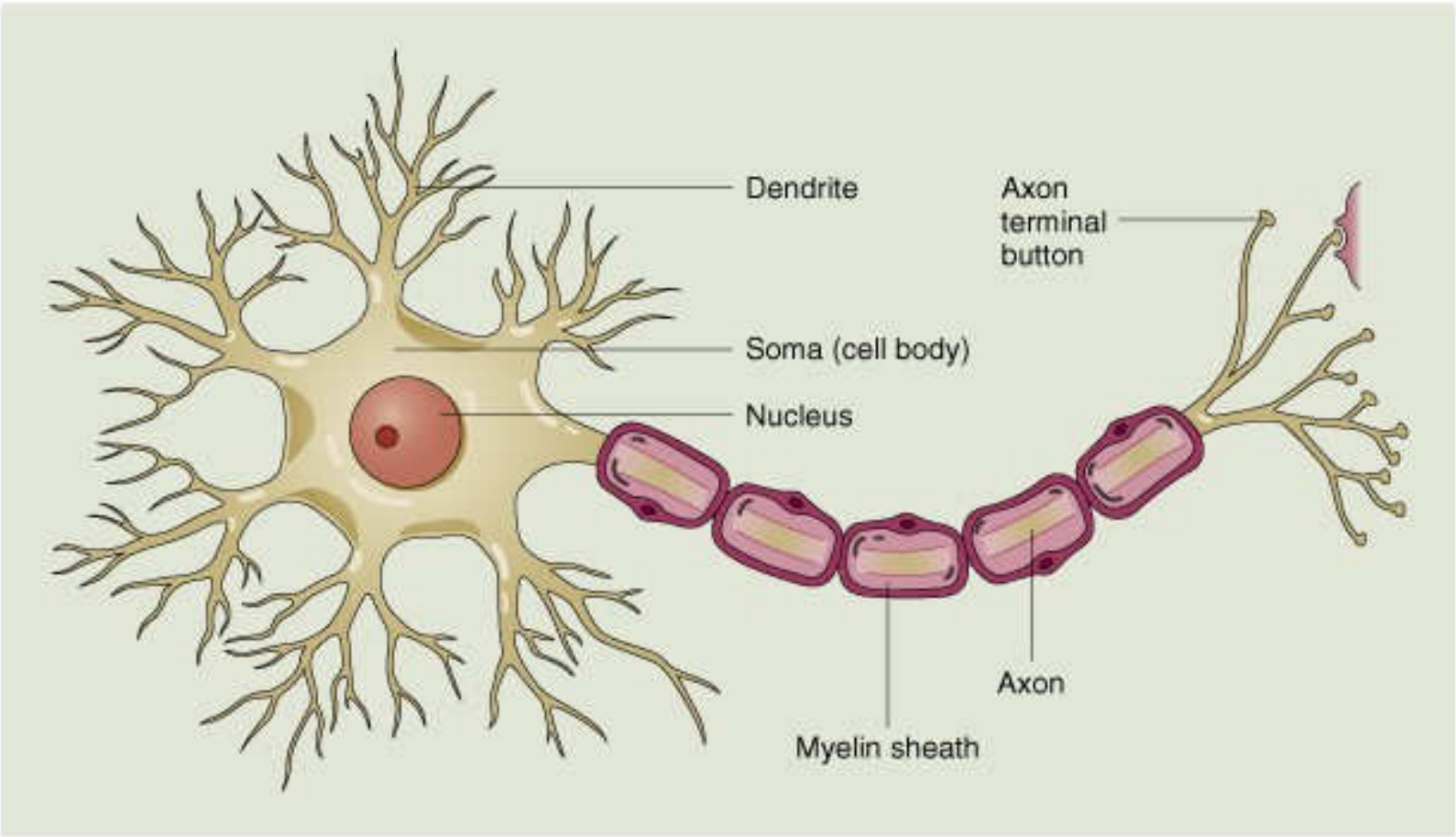
The Brain



Transistors



The Neuron



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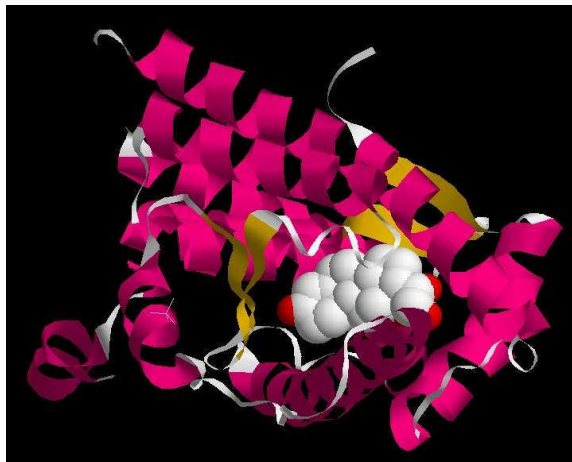
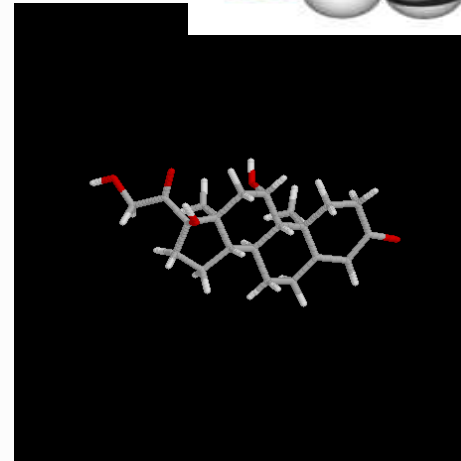
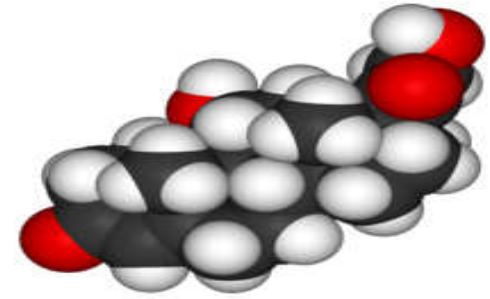
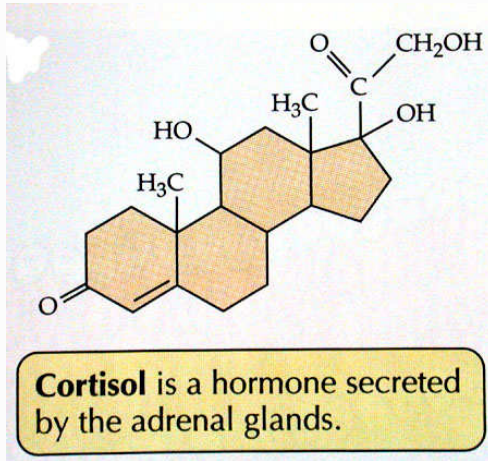
Circadian Rhythm

- It is a roughly-24-hour cycle in the physiological processes of living beings
- Circadian rhythms are important in determining the sleeping and feeding patterns of all animals, including human beings. There are clear patterns of brain wave activity, hormone production, cell regeneration and other biological activities linked to this daily cycle.

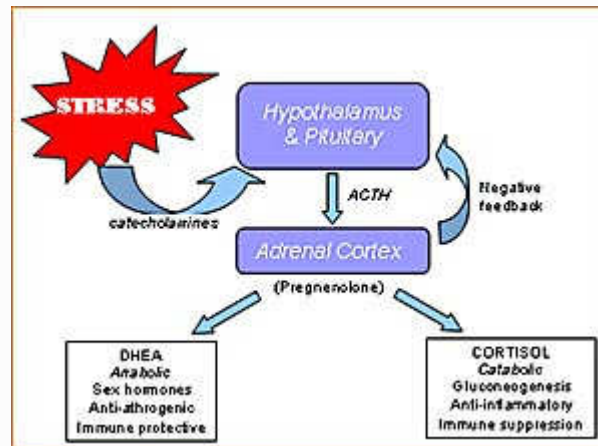
Circadian Rhythm

- There is a correlation between circadian rhythm and heart diseases.
- As cholesterol and other hormones are linked with circadian rhythm.
- Cortisol, a stress hormone is also related to light.

Cortisol



Cortisol



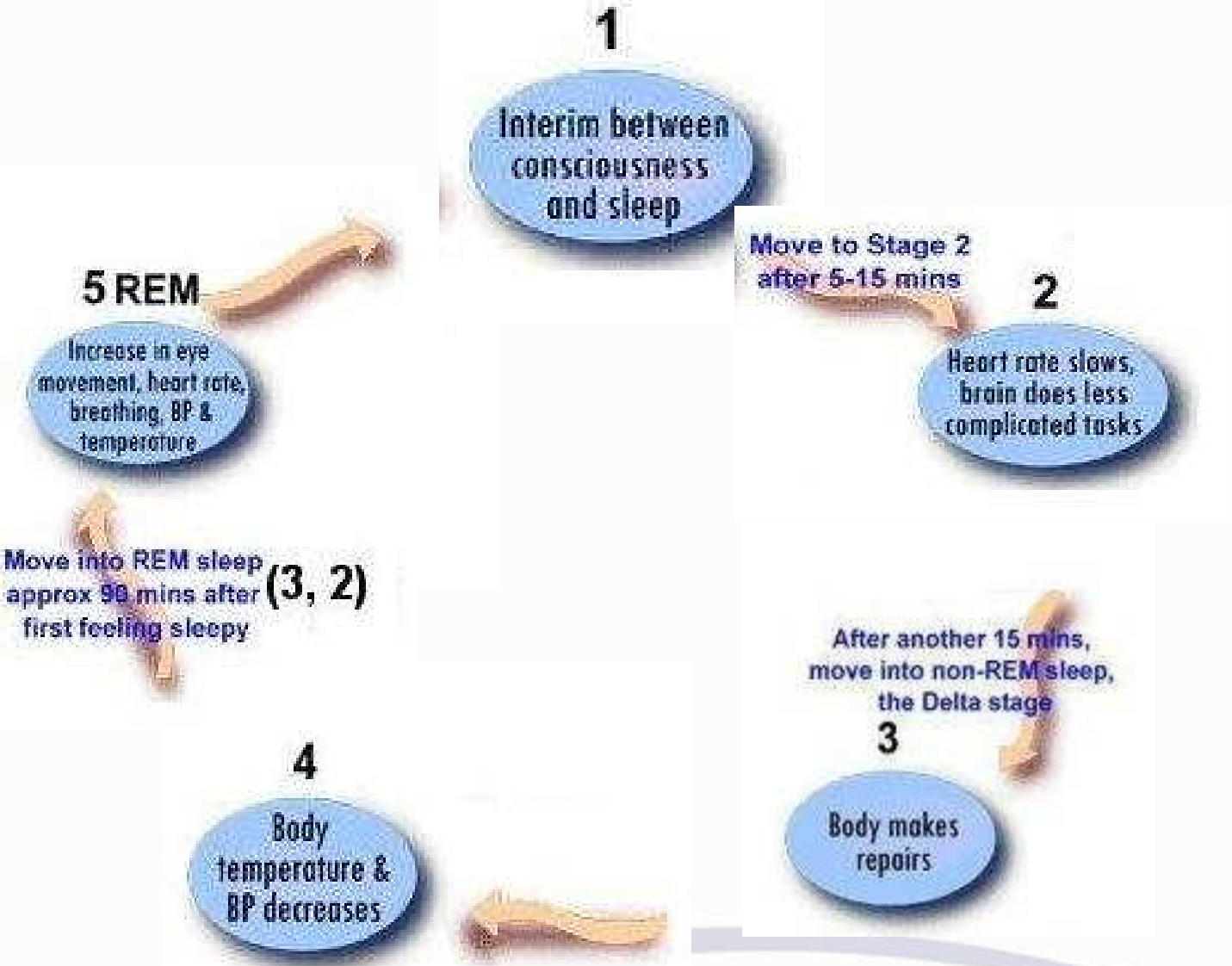
Negative Aspects of Caffeine

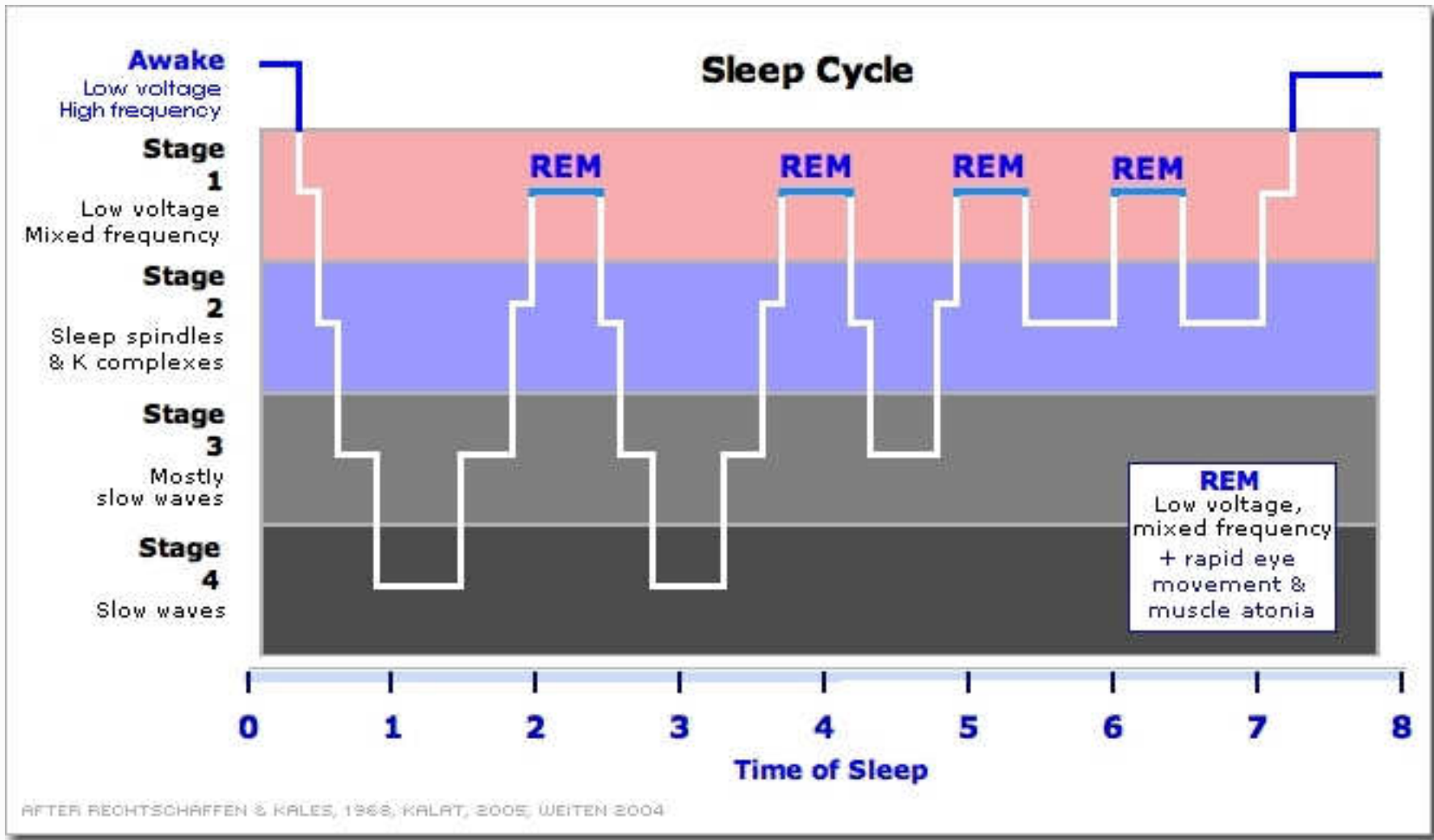
- Half-life of up to 7 hours
- Build-up of tolerance
- Gastrointestinal disturbances
- Increases restlessness
- Disrupts sleep architecture

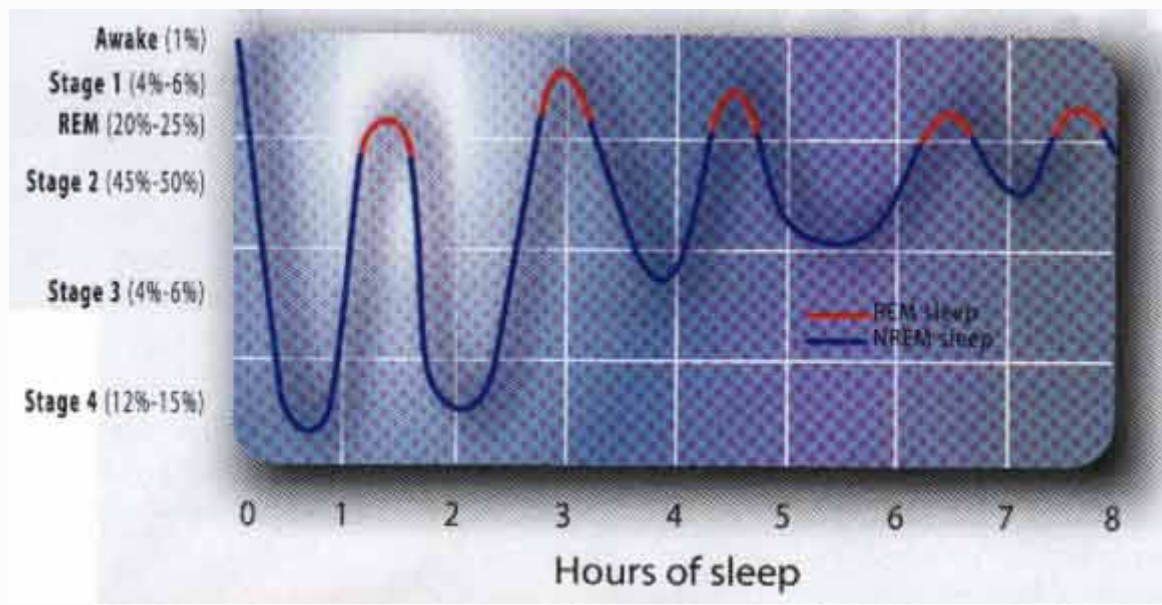
Positive aspects of Caffeine

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

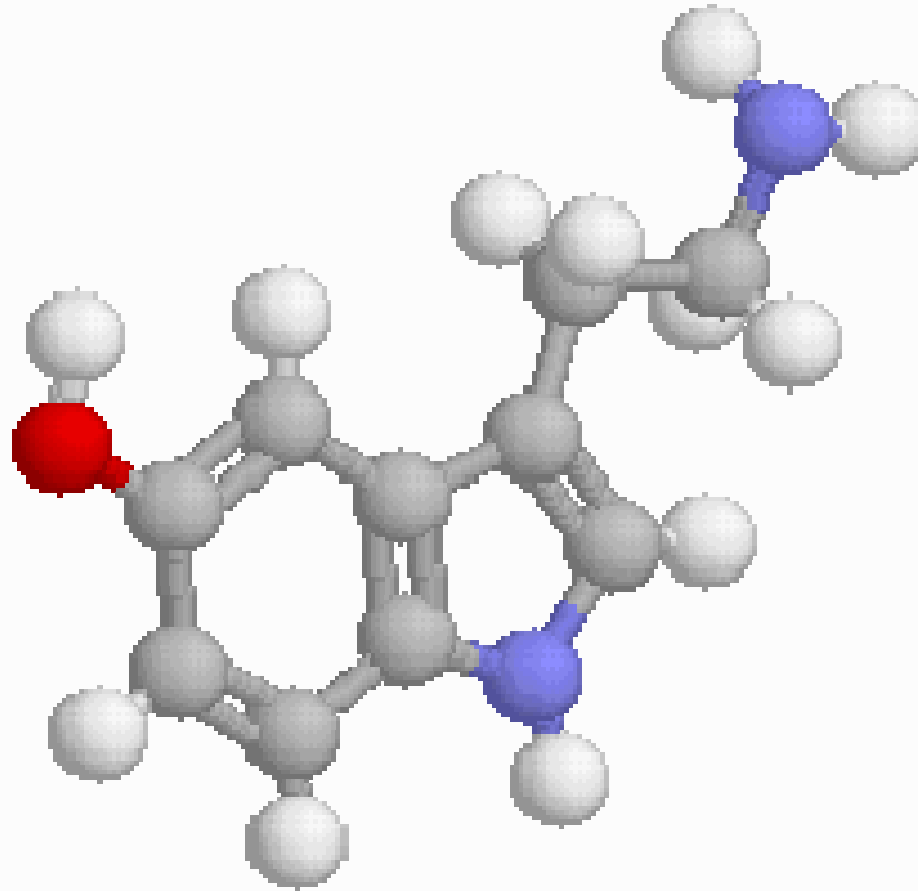
SLEEP CYCLE



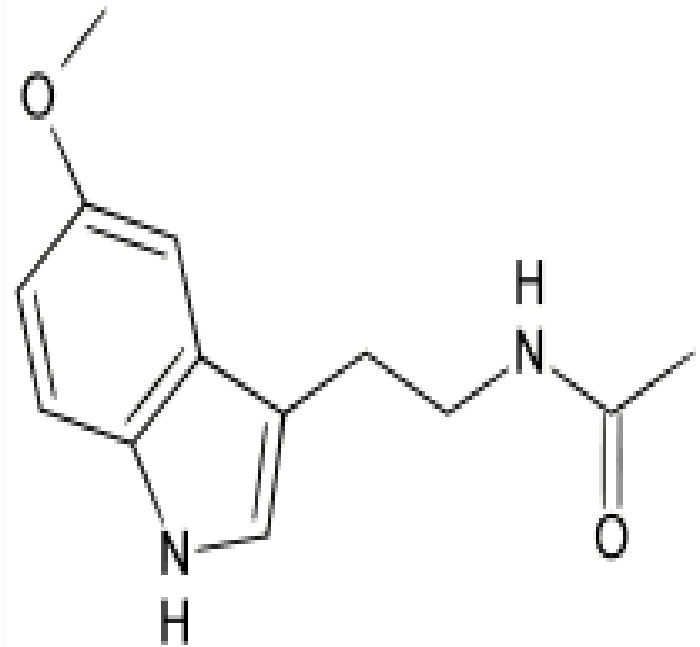
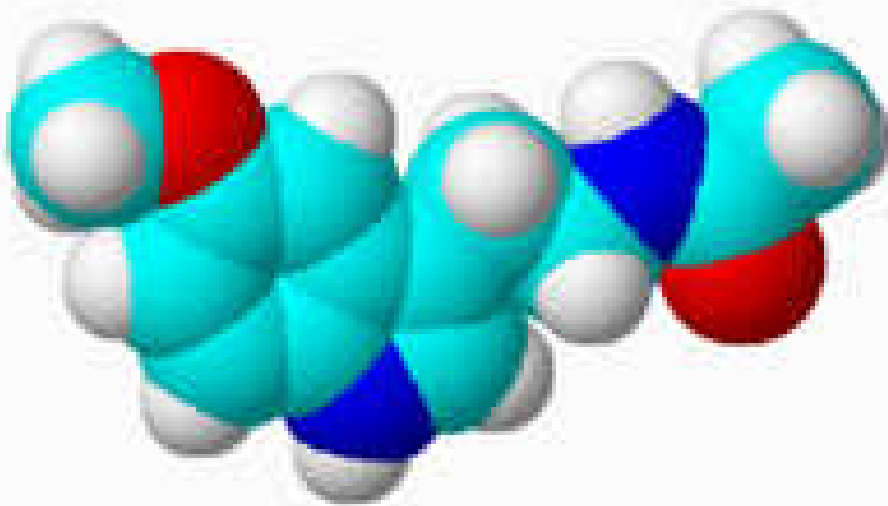




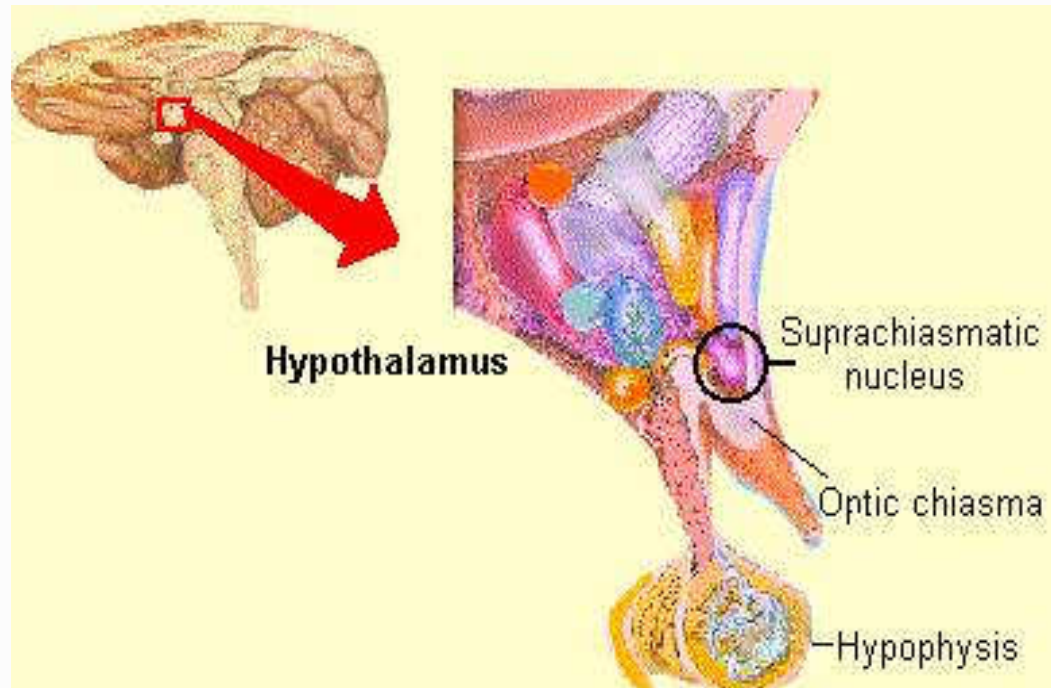
Serotonin “A molecule of happiness”



Melatonin



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.

Stimulant

- Stimulants are drugs that temporarily increase alertness and wakefulness. They usually have increased side-effects with increased effectiveness, and the more powerful variants are therefore often prescription medicines or illegal drugs.

Function

- Stimulants increase the activity of the either [sympathetic nervous system](#), the [central nervous system \(CNS\)](#) or both. Some stimulants produce a sense of [euphoria](#), in particular the stimulants which exert influence on the [CNS](#). Stimulants are used therapeutically to increase or maintain alertness, to counteract fatigue in situations where sleep is not practical (e.g. while operating vehicles), to counteract abnormal states that diminish alertness consciousness, (such as in [narcolepsy](#)), to promote weight loss ([phentermine](#)) as well as to enhance the ability to concentrate in people diagnosed with attentional disruptions (especially [ADHD](#)). Occasionally, they are also used to treat depression. Stimulants are sometimes abused to boost endurance and productivity as well as to [suppress appetite](#). The euphoria produced by some stimulants leads to their recreational use, although this is illegal in the majority of jurisdictions.

Function

- [Caffeine](#), found in beverages such as [coffee](#) and [soft drinks](#), as well as [nicotine](#), which is found in [tobacco](#), are among some of the world's most commonly used stimulants. Examples of other well known stimulants include [ephedrine](#), [amphetamines](#), [cocaine](#), [methylphenidate](#), [MDMA](#), and [modafinil](#). Stimulants are commonly referred in slang as "uppers". Stimulants with significant abuse potential are mostly carefully controlled substances in America and most other jurisdictions. Some may be legally available only by prescription (e.g. [methamphetamine](#), brand name [Desoxyn](#), mixed [amphetamine](#) salts, brand name [Adderall](#), [dexamphetamine](#), brand name [Dexedrine](#)) or not at all (e.g. [methcathinone](#)).

“Sleep Muscle Atonia”

- Muscle atonia is triggered by cholinergic stimulation of the basal forebrain: implication for the pathophysiology of canine narcolepsy

System Dynamics

Managing Complex Strategies

