

# SLEEP TIGHT!



**-a lecture & workshop about sleep**

**For those who want to learn more about how sleep works,  
get tips in everyday life and  
start a change process towards better sleeping habits**

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## During this lecture you will learn about:

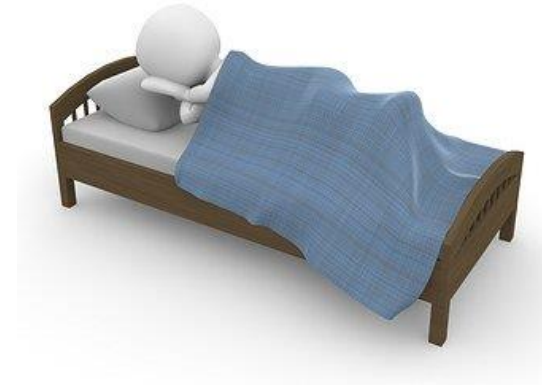
- Why we sleep
- What happens during sleep
- Causes of sleeping disturbance and persistent sleeping problems
- What controls and determines how sleep becomes

## During this workshop you will learn:

- Map your own sleeping habits – do a problem analysis
- Think about how your habits and behaviors affect your sleep –do a functional analysis
- Fill in a sleeping diary – do an in- depth analysis
- Make decisions for improvement
- Do an action plan for the future



# Why do we sleep?

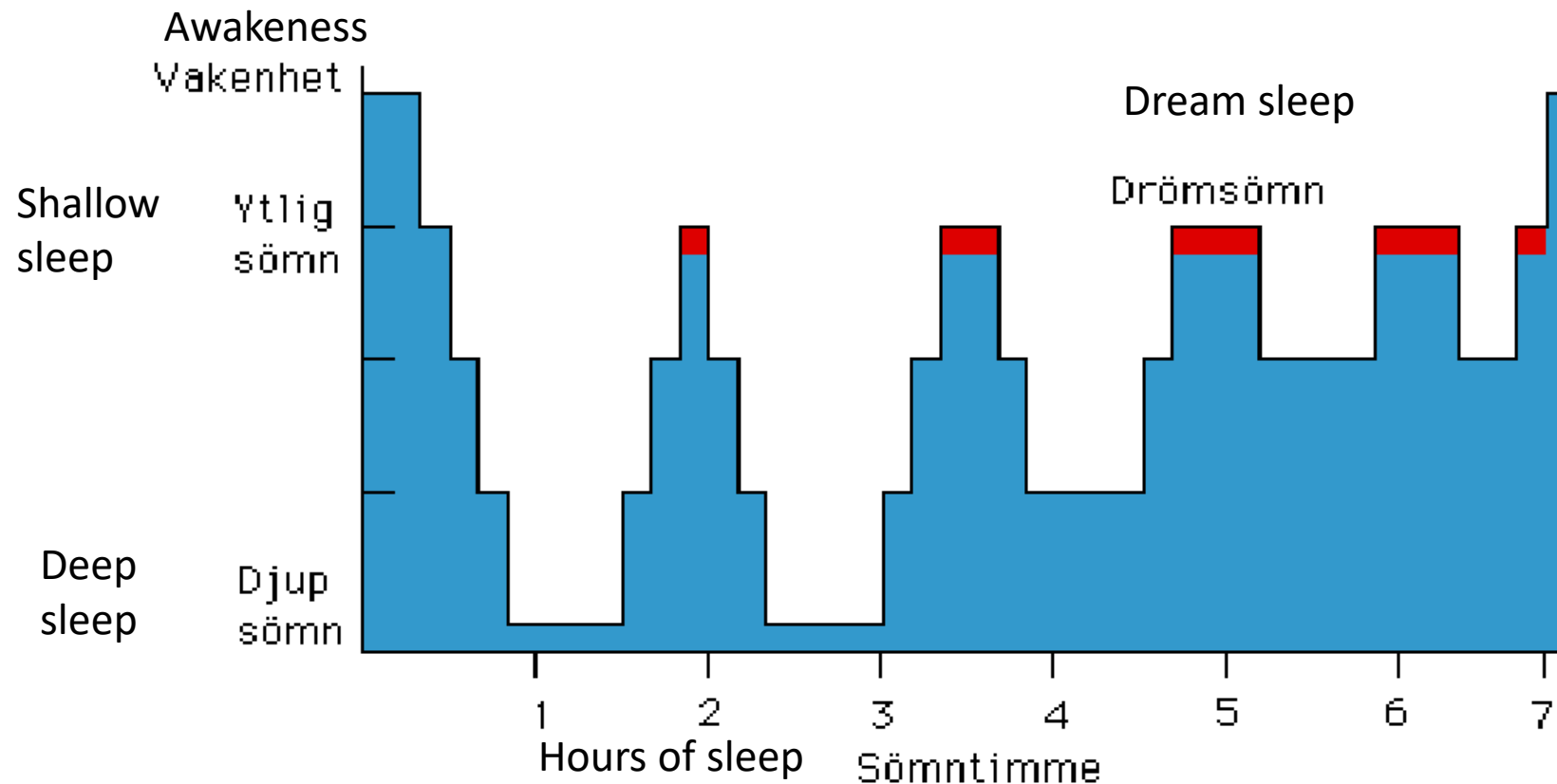


- **Biologically programmed** -Since we do not see in the dark, we are biologically programmed to sleep at night
- **Recovery** -When we sleep at night, the body recovers
- **Structure and repair** -During sleep, cells are rebuilt, and repair is done
- **Memory storage** -An upgrade of memory occurs
- **The immune system is strengthened** -by "cleaning out" dangerous substances in the body during sleep

# What happens during sleep?

## The sleeps stages and cykles

(explanations on next slide)



# Explanations of the sleep stages and cykles



Sleep consists of different stages. Each stage is important in its own way

We sleep in cycles of about 90-120 minutes and have 3 to 4 cycles per night. Therefore, waking up several times during the night is common

Most important is the deep sleep. During it, the fact memory and the room memory are cemented (where we put the keys, or how to find the library). The brain's "hard drive" is repaired, restored, and unnecessary newly formed connections between nerve cells are cleared so you can learn new things the next day

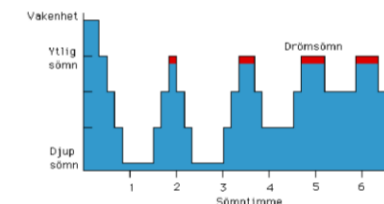
Deep sleep tones down the emotions of a memory

If the alarm clock rings when we are in deep sleep, it is difficult to wake up

We dream all night, but to a greater extent and more emotionally, when we slowly wake up - that's why we remember it. The task of the dream sleep is to create associations and an understanding of what you previously learned can be use in an apprehensible way

Part of the dream sleep is called REM (Rapid Eye Movement Sleep). It comes at the beginning of the dream sleep. It looks like we are going to wake up because the eyelids are moving, and muscles are shaking

Women take in information in a different way than men. They therefore have a greater need to sleep undisturbed during the night in order to process yesterday's information



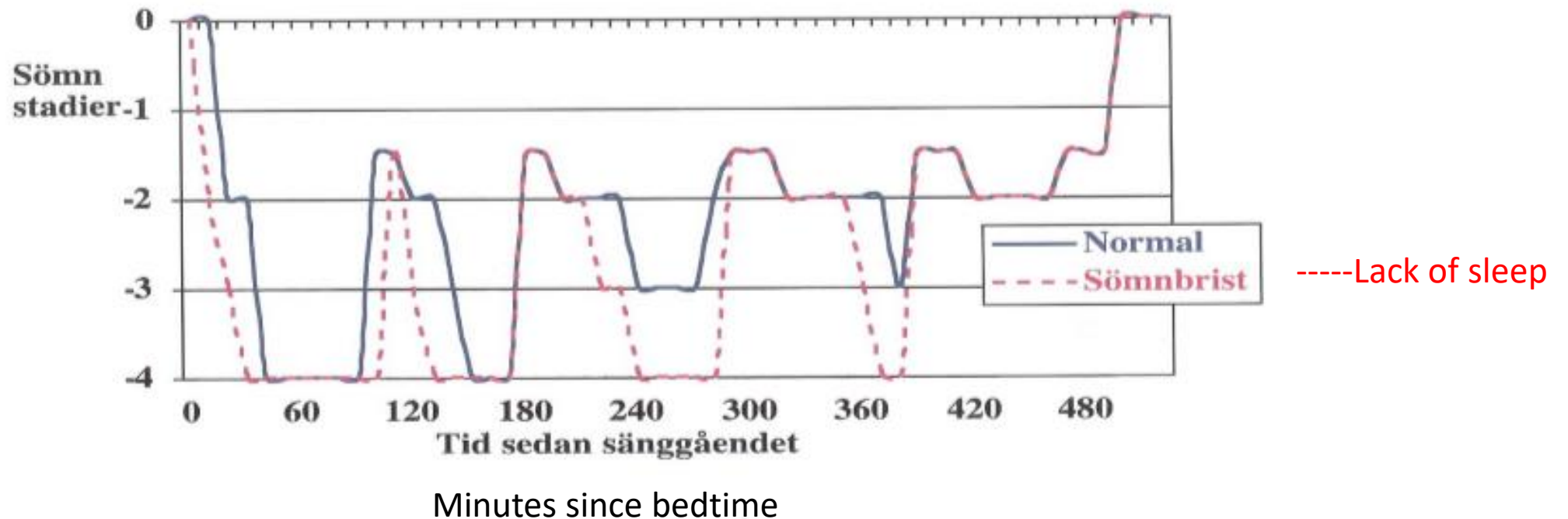
# You need deep sleep to "refuel" the energy you lost during the day



If you don't get into deep sleep when you sleep, you will have a "debt" until the next day. That's why you can feel really tired in the morning despite sleeping eight, nine hours.

Medication, some physical and mental diagnosis can make it harder to get deep sleep.

The night after you slept bad you get in deep sleep faster, which is good ...but to get to little sleep during longer periods is not good for your health





# Causes of temporary sleeping disturbance

- **Expectations**
- **Tension**
- **New environment**
- **Accomplishments**
- **Changes**
- **Outer circumstances**
- **Temporary illness**
- **Crises**
- **Loss**
- **Conflicts**
- **Economical concerns**

# ...and how temporary sleeping disturbance can become a persistent sleeping problem

**Environmental factors** - heavy traffic outside, snoring partner, heat, light

**Health factors**- physical and mental illnesses or disorders

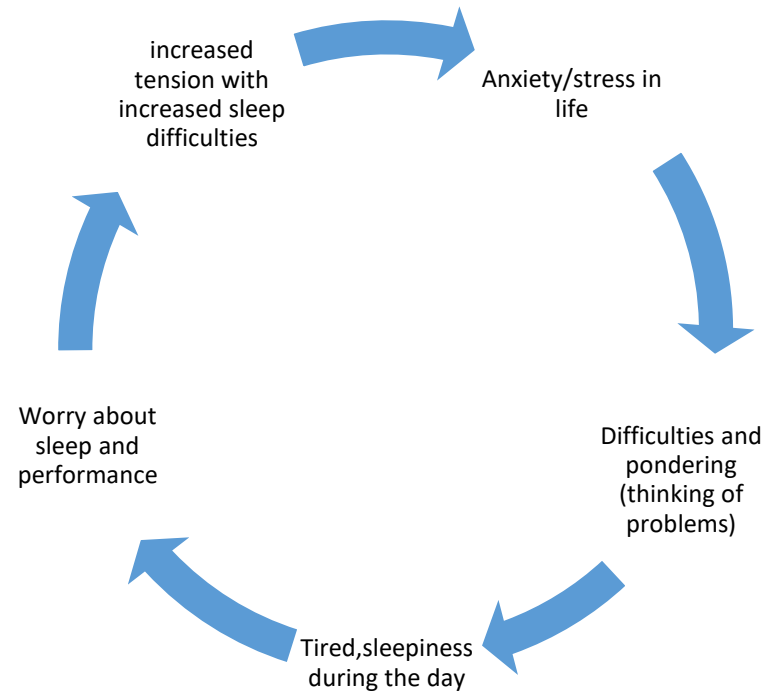
**Stress, poor recovery** - difficult to relax, imbalance between activity and rest

**Thoughts and attitudes** - "everyone else can sleep", "best study all night"

**Behaviors and habits** - the bed is used for "everything". Activities, food and drinks that triggers the body

# Vicious circles

- one thing lead to another



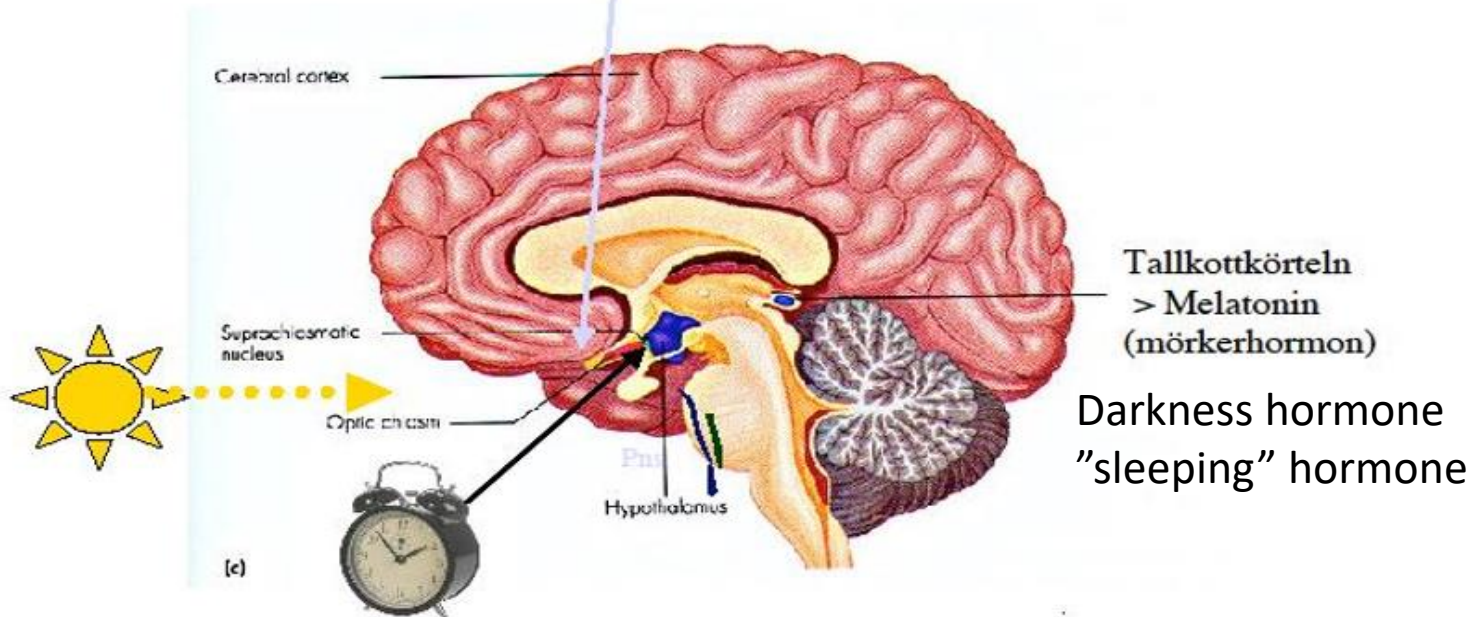
# **3 factors that control and decide how sleep becomes:**

- 1** The biological circadian rhythm and the internal clock
- 2** The balance between wakefulness and sleep
- 3** The level of activation in our physical, mental and emotional systems

# Factor 1 that control and decide how sleep will be:

The biological circadian rhythm and the internal clock - our built-in physical system  
(explanations on next slide)

## Den biologiska klockan The biological clock

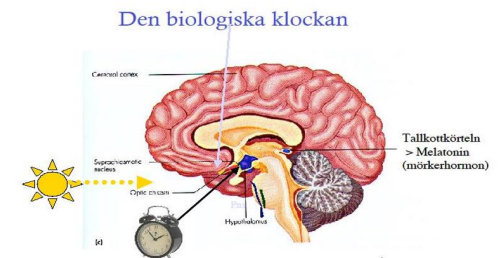


# The biological circadian rhythm and the internal clock

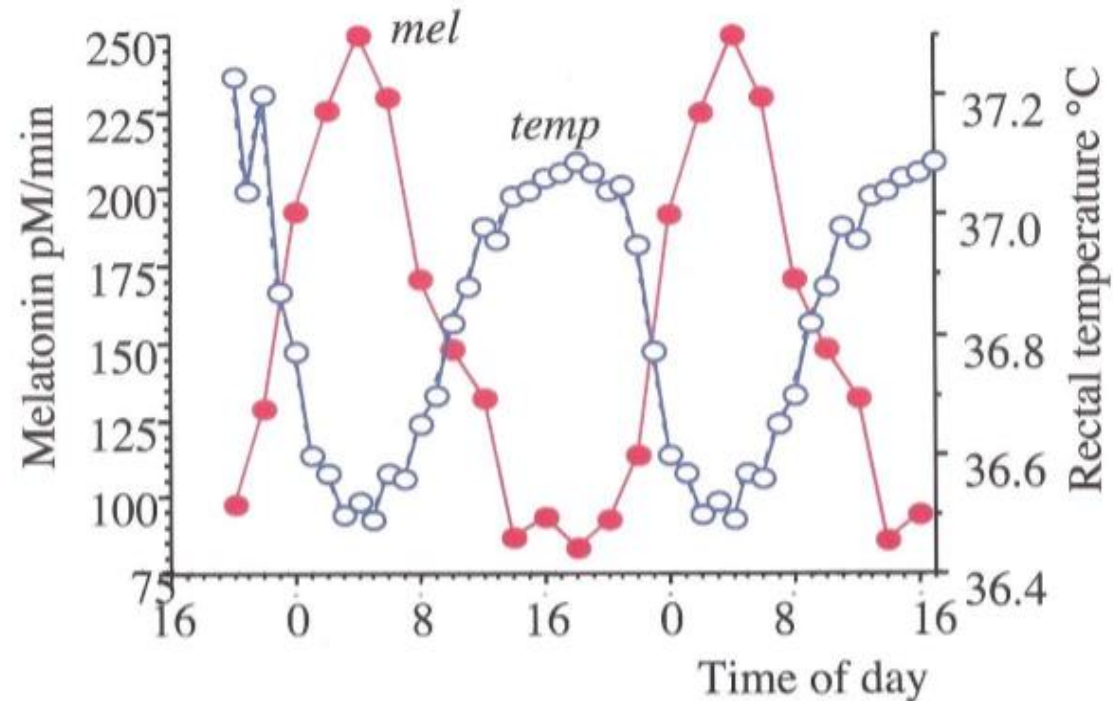
Sleep isn't in a special place in the brain. Different parts and functions of the brain and body work together

When daylight enters through the eye, the sleep hormone Melatonin is switched off. The master clock is activated and sends out messages to the bells in every cell in the body - Now it is time to wake up!

When darkness arrives in the evening, it re-activates the sleeping hormone Melatonin which will help us to get tired. The effect of Melatonin is to make us tired. However, it does not make us sleep better



# The biological circadian rhythm -melatonin and body temperature



The level of sleeping hormone Melatonin changes from afternoon to night and then back to daytime. Melatonin level is peaking at 03.00-04.00

The body temperature does the opposite and we are therefore coolest at 15.00-16.00

## Factor **2** that control and decide how sleep will be:

The balance between wakefulness and sleep

- be both physically and mentally active during the day to sleep well

### Active 16 hours - sleep 8 hours

- After waking up, fill the coming 16 hours with a variation of activities
- During these active hours you also need recovery - create a balance between study, breaks, exercise, leisure, family and friends etc.
- You need to empty the "energy tank" during the day to "be able" to sleep well at night





Tired after lunch?

-digestion is in progress + the inner clock pauses around  
13.00-15.00

Meant to sleep twice a day?

-may the short period of light in the Nordic countries “forced us” to  
stay awake during daytime?

Take a nap?

-10 minute´s nap during the day, at the latest at 14.00 can do  
well- but the best quality of sleep you get during nights



# Factor **3** that control and decide how sleep will be:



The level of activation in our physical, mental and emotional systems  
- we need to feel “relaxed” to fall asleep

In order to sleep, the sleep bar (= the number of hours we have been awake) needs to be higher than the activation bar (how active we are physical, mental and emotional)

**Sleep**



**Activity**



**Sleep**



**Activity**



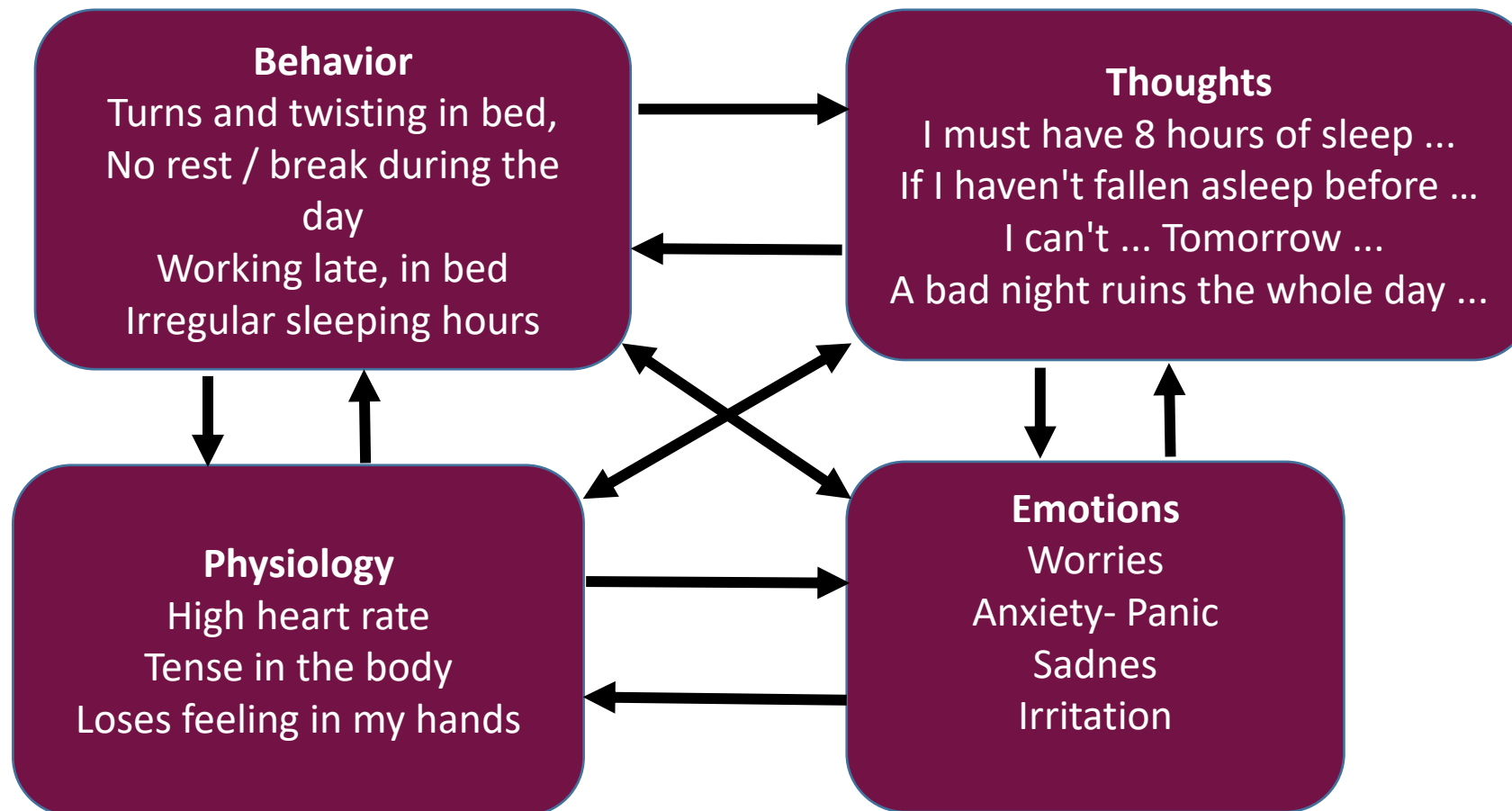
# The Stone Age still influences us today



[Film: Fight or Flight, Stress Response, Youtube](#)

The Fight or Flight system is activated when your brain interpreters the situation as dangerous

# How activation level can be so high at bedtime



# We create good conditions by having good routines

## Morning Routines

- You can't decide when to fall asleep, but you can decide when to go up - have a set “go out of bed” time.
- Awaken the body with movements so the temp rises
- Skip the snooze - otherwise the sleep process will start over and you will find it harder to wake up.



# Beeing in the daylight

- Go out in the daylight already in the morning; take the coffee break outdoors or take a short walk in the morning or during lunch time
- 30 minutes on a sunny day, if cloudy, a little longer. If not possible, sit at the window. If not possible use lights that mimic the daylight.
- Keep in mind -Sunglasses prevent waking up.



# Food habits

Eat most at the beginning of the day (breakfast and lunch).  
Then reduce for each meal - digestive systems need to rest at night.

Late intake of sugar, fatty, heavy or high fiber foods causes the inner bells to become confused - Should I be active now ???

After a sleepless night -the body wants to store more energy – makes easier craving for junk food the day after - which increases the weight

Hard to fall asleep hungry- eat something small an hour before going to bed - a glass of milk promotes melatonin levels



## Avoid stimulating chemical substances (at least late in the day)

A cup of coffee in the morning helps the liver metabolism  
"get started"

... avoid coffee and tea late in the day— because you don't  
feel like you're sleepy. Try decaffeinated coffee and green  
and red tea instead

Coffee, snuff, cigarettes, cola, energy drink, alcohol raises  
the level of activation - triggers stress symptoms in the  
body.





## Get a good balance between activities and rest during the day

Schedule all your activities and recovery opportunities (breaks) during the week



Provide space for eating, exercise and fun

Leave some gaps for unforeseen events

Set a “good enough” level



Give yourself validation for what you are doing well

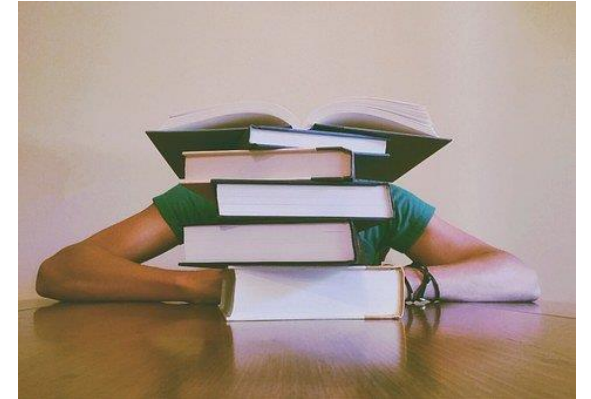


## Study during the day or early in the evening

### Studying all night before the exam is not helping you:

-the brain is full of temporary information and neither can fortify what is important nor clear away the unnecessary

-you see everything in a fog, the brain is overheated, very difficult to find the “right box” of information you need right then



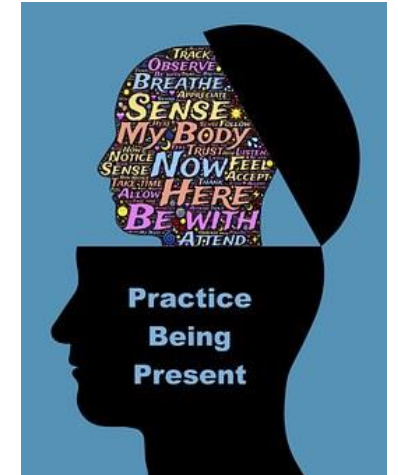
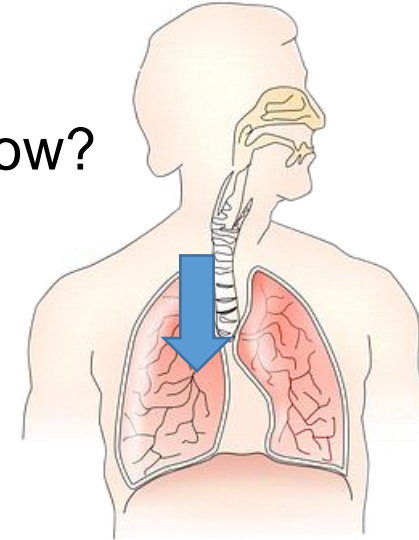
## Be physical active during the day

- Exercise regularly, preferably outdoors and during the bright part of the day. Take a walk, use the stairs, dance, bike and run
- Heart rate-boosting exercise, 30 minutes, three times a week can improve sleep
- Sleepy when studying? -Change activity! - Take a walk, play card or meditate instead
- If exercise late -a couple of hours of winding down is needed before you go to bed



# Recovery

- Do you feel stressed and your breathing is shallow?
  - take 3 slow, deep, breath to calm down your fight or flight system
- Do you notice you do everything fast?
  - slow down the pace
- Practice Yoga, Mindfulness and Relaxation when you are calm
  - to use when you are stressed
  - borrow University West's relaxing room 1 hour- Get a card at the Service Center, F308
  - or use the silent room (even for praying) F318



# Bedtime routine



- Help the body change from day to night mode. End the day's chores, sum up the day and plan and prepare for tomorrow
- Tone down the light, arrange it a little cozy for you on the sofa, armchair or cushions on the floor and get some time for yourself
- Listen to relaxing music or read a feel-good book (something that keep you calm)
- Take a hot bath or shower. You usually freeze after a while, which lowers your body temperature
- Ventilate for 10 minutes, sleep with an open window or lower the temperature in your bedroom
- Avoid screens and social media - the screen light and the feelings you get when looking at it can "get you started" - If can't be without, put the blue light filter on





# Sleep

- Go to bed at the same time every night
- Just lie in bed when you're going to sleep ... or have sex
- Aim to get at least 5 hours of sleep per night
- Get a good bed, pillow and duvet
- If you don't have a bedroom –use a screen, drapery or bookcase to make one
- Use blackout blinds and / or eye mask if light
- Use earplugs in noisy environments
- Put your cellphone in another room
- Weight blanket about 10% of your body weight – soothing
- Use a “Sleep tracker app” a couple of nights to track your sleep stages and cycles
- Many sleep medication have limited effect - several stronger leads to long-term dependence



# What to do if you still can't sleep or if wake up in the night

## -different theories

Keep calm, stay in bed, have the light turned off. Don't check the time.

Think about quality time! even if not asleep.

or...

If been awake for 15 minutes - get up, leave the bedroom. Do something quiet and restful in dark or subdued light, eg. do crossword, read something that does not arouse emotions, let go of cellphone etc.

Repeat several times if needed during the night



# Selfcompassion- Patience and acceptans

- You can't perform sleep!
- See sleep as a friend, not an enemy
- Lay down the fight while lying in bed! The more you struggle to sleep, the more activated the brain become
- A change in your habits can take time – be nice to yourself
- Let go of what the previous night has been or how you think future nights will be. It won't be helpful to think about these!
- Accept that the situation is as it is (it doesn't mean you are giving up)





## Working nights or shifts?

- Be aware that the internal clocks become confused...  
...which can result in poorer physical health



# Workshop

-Use separate  
worksheets



# Map your own sleeping habits

## Problem analysis:

- When did your sleeping problems begin? (e.g 6 months ago)
- What was it related to? (e.g. too heavy workload)
- How has the sleeping problems developed over time?( e.g. in the beginning a couple of nights a week, now several nights every week, I never feel rested)
- When thinking about your sleep, what feelings/thoughts do you have? (e.g. afraid that it never gets better, angry because I cannot fall asleep, I will not be able to study any more if I can't feel rested)
- Have you had better and worse periods? (e.g better those occasions when sleep overnight at a friends home, worse when I sleep alone in my apartment and really bad at exam period)

# Think about how your habits and behaviors affect your sleep

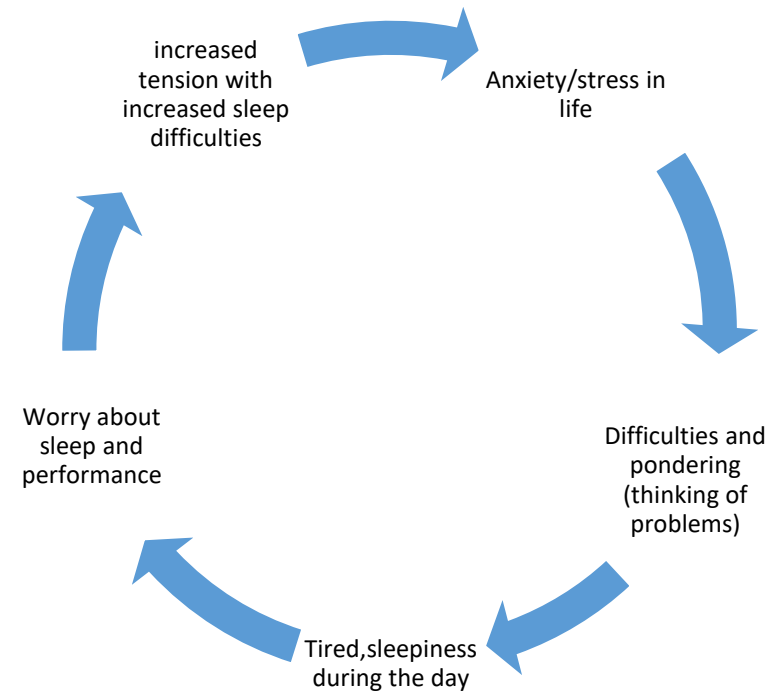
## Functional analysis:

- What do you think maintain sleeping problems? (e.g. snoring partners, unable to take control of my situation, concern for my parents)
- Unhelpful habits? (e.g. study in bed, falling asleep on the sofa, imbalance between activities and rest)

## Functional analysis:

Think about your vicious circles

e.g. worry about exam →  
no time to sleep →  
can't go to bed until all study is done →  
sleeping anxiously →  
wake up very tired →  
I will never be able to graduate → etc.



**Sleep difficulty** → **worries** → **safety and avoidance behaviors** → **more sleep problems**

## Do you have any security and avoidance behaviors?

- In the evening go to bed before you really have
- Avoid going to bed
- Have the radio on to be able to sleep
- Fall asleep on the couch instead of in bed
- Rituals around bedtime? (like visit the toilet 3 times before can fall asleep)
- Sleep longer in the morning to cover up for the sleep I did not get during the night
- Take long naps
- Avoidance behaviour the day after a bad nights sleep
- Chose to not see friends in the evening

# Sleeping diary

see Life habit tests, (choose Sleep), on Student Health Service, UW web page: [www.hv.se/studenthealth](http://www.hv.se/studenthealth)



**Provides an in-depth analysis of your sleep habits. Fill in before you do any changes, in the meantime working on your improvement and after improvement work**

Fill out the diary within an hour of getting out of bed. Useful tips and advice can be found under the tabs Tools and Frequently asked questions.

Week: _____	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
<b>How was your sleep during the past night?</b>							
1. When did you wake up this morning?							
2. When did you get up this morning?							
3. When did you go to bed last night?							
4. When did you turn of the lights?							
5. How long did it take you to fall asleep?							
6. How many times did you wake up during the night?							
7. For how long were you awake during the night?							
8. For how long did you sleep all in all?							
9. Did you take any sleeping pills?							
10. How well rested do you feel today? *							
11. How would you describe you quality of sleep? **							

<b>What did you do during the day yesterday?</b>							
12. Did you take a nap yesterday? If yes, for how long did you sleep combined in minutes yesterday?							
13. Had anything special happened during yesterday that you thought about when you were trying to fall asleep?							
14. Did you do something out of the ordinary during the evening, that you usually do not do?							
15. Something else that you could remember that was different during the evening yesterday?							
16. How much alcohol did you drink last night?							
17. How many cups of coffee/tea did you drink last night?							

\* Answer question 10 by using a number between 0 and 5, 0 = not at all well rested and 5 = very well rested.

\*\* Answer question 11 by using a number between 0 and 5, 0 = not at all good quality and 5 = very good quality.

# My decision for improvement

## List of areas that are important to decide to improve your sleeping habits

see Life habit tests, (choose Sleep), on *Student Health Service*,  
*UW web page*: [www.hv.se/studenthealth](http://www.hv.se/studenthealth)

Below is a list of important decisions that you should take in order to improve your sleeping habits. Print the list and write down the decisions that you made as you went through the tips and tools under the tab Tools.

- I will use the following routine when going to bed:

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- Decisions I have made regarding the 15 minute rule (see fact box):

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- Decisions I have made regarding what to do when I feel sleepy:

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- Decisions I have made regarding "naps":

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- Decisions I have made regarding when to get up in the morning:

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- Other decisions I have made that have affect on my sleep:

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## When you got insight into what disturbs your sleep

### -Action plan for the future:

- What sleeping schedule has worked well for me: go to bed at? get up at?
- What evening routines have I benefited from?
- What relaxing methods have worked best for me?
- What can I do to help myself when I wake up in the middle of the night?
- Things I have done in the daytime that helped me get a better sleep?

**Don't forget to celebrate your progress!**

**... and would there be a setback, have trust in you can get back "on the track"**



*... and welcome to contact me if you want help:*  
[annette.ryckenberg@hv.se](mailto:annette.ryckenberg@hv.se)

# Litteratur used for lecture & workshop:

- Sömn; sov bättre med kognitiv beteendeterapi ,*Marie Söderström, 2007*
- Sömn, sömn, sömn; Hur minne, immunförsvar, vikt, koncentration och dina känslor hör ihop med din sömn, *Christian Benedict & Minna Tunberger, 2018*
- Sömnguiden, *Västra Götalandsregionen*: [Sömnguiden, Västra Götalandsregionen](#)
- Info from "KBT-behandling i grupp vid sömnbesvär", Västra Götalandsregionen, 2017

## Tips in English:

- Life habit tests, on *Student Health Service, University West* webpage: [www.hv.se/studenthealth](http://www.hv.se/studenthealth)
- <https://www.sleepfoundation.org/articles/healthy-sleep-tips>
- <http://colossalsleep.com/sleeping-tips-for-college-students/>

