



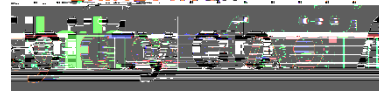
OBJECTIVES

_____:

1. List at least two areas of functioning that sleep can impact.
2. Describe 3 tips for improving sleep hygiene.

_____:

1. Name four benefits of mindfulness.
2. Describe the three components of mindfulness.



SLEEP & SLEEP HYGIENE



SLEEP

Sleep Satisfaction, who is satisfied with their sleep?

Impact of Sleep:

- **physical health**
- **mental health and well-being**
- **cognitive functions (e.g., memory, learning, creativity)**
- **athletic training, performance, recovery, and risk for injuries**

Theory



SLEEP MYTHS & FACTS

Adults need 8 hours of sleep?

Myth

Facts:

- 1. Individual needs vary**
- 2. On average people need < 8 hours**
- 3. Sleep quality is just as, or even more important, than sleep quantity.**



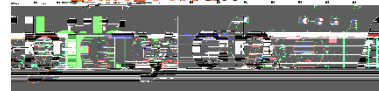
SLEEP MYTHS & FACTS

Good sleepers begin to experience insomnia if they try to sleep longer?

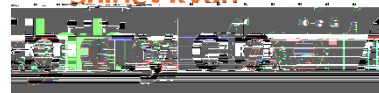
Fact

Facts:

- 1. Spending more time in bed than you are actually able to sleep might make your sleep problem worse.**
- 2. Brain is learning that bed does not equal sleep.**



SLEEP MYTHS & FACTS



SLEEP MYTHS & FACTS

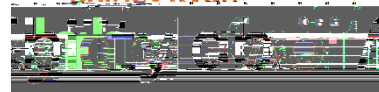
Good sleep only occurs if you do not wake up in the middle of the night?

Myth

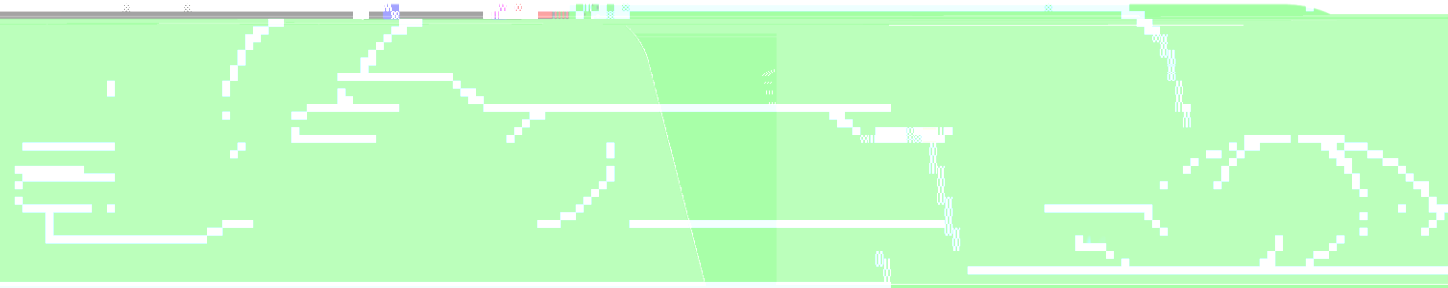
Facts:

Normal sleep includes brief awakenings.

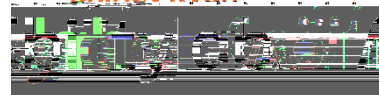
- we typically don't remember them.



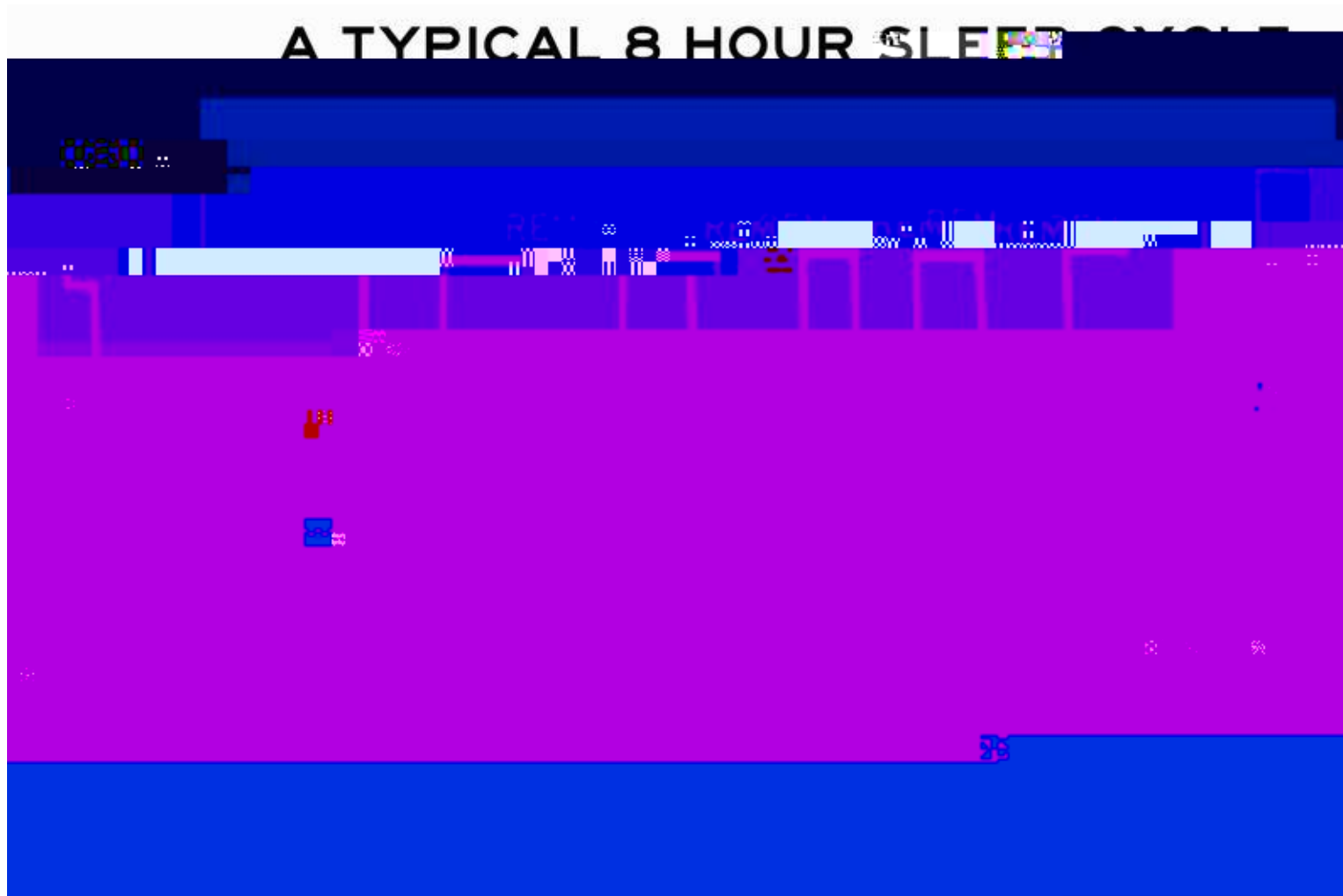
SLEEP STAGES



Stage	Duration	Characteristics
Stage 1	1 – 7 minutes	Start falling asleep, brain slows down, and movements decrease
Stage 2	10 – 25 minutes	<ul style="list-style-type: none"> : body temp, breathing rate, heart rate, overall brain activity : muscle relaxation Eye movements stop Short bursts of brain activity
Stage 3 (Deep sleep)*	20 – 40 minutes	<ul style="list-style-type: none"> : muscle tone, breathing rate, and heart rate Brain- delta (slow wave sleep)
Rapid Eye Movement (REM)	10 – 60 minutes	Typically starts 90 minutes after falling asleep Brain activity (similar to b o b m)



SLEEP STAGES



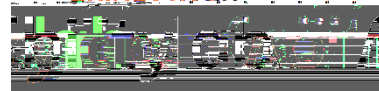
Shirley Ryan

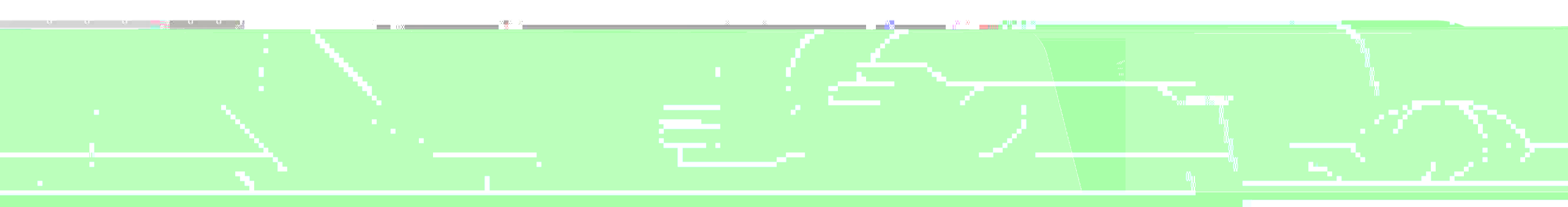


SLEEP HYGIENE AND STIMULUS CONTROL

What is stimulus control?

Repeated experiences of lying in bed awake strengthens the brains association between lying in bed and being awake.



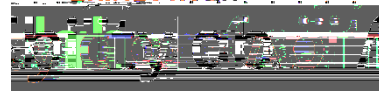


SLEEP HYGIENE AND STIMULUS CONTROL

Sleep Hygiene tips:

Food and Drink

- 1. Limit caffeine, consume before noon.**
- 2. Limit alcohol, don't consume within 3 hrs of bedtime.**
- 3. Don't eat a heavy meal close to bedtime. Digestion is an active process and can disrupt sleep. Light snacks are okay.**



SLEEP HYGIENE AND STIMULUS CONTROL

Routine

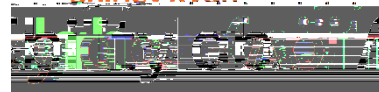
- 4. Consistency: Go to bed at the same time every night and wake up at the same time every morning.**
- 5. Create a “buffer zone.” For 30-60 minutes prior to bedtime, do activities that are calming for you. Taking time to slow your body and mind down will prepare you for a good night’s rest.**



SLEEP HYGIENE AND STIMULUS CONTROL

Environment

6. **Keep your bedroom dark (eye masks), quiet (ear plugs), and cool. Our body temperature**



SLEEP HYGIENE AND STIMULUS CONTROL

Behaviors

- 11. Avoid or limit daytime napping. Napping, especially later in the day or early evening, interferes with your ability to fall asleep.**
- 12. Regular exercise. Exercise can improve sleep quality; however, exercising too close to bedtime (within 1-2 hours of going to bed) can make it more difficult to fall asleep.**
- 13. Manage stress before going to bed. Stress and worries can make it difficult to fall asleep. (e.g., relaxation, mindfulness/meditation).**



MINDFULNESS

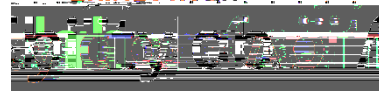
MINDFULNESS

What is mindfulness?

A way of living that focuses on the present moment.

Can be a form of meditation where we sit and practice for a specific amount of time (*formal practice*).

We can also incorporate mindfulness into our daily activities (*informal practice*).

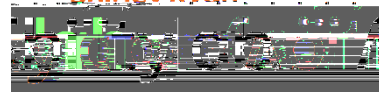


MINDFULNESS

Benefits of mindfulness:

Improve pain

Improve physical and mental health



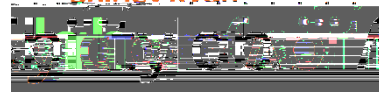
MINDFULNESS

Three main components:

1. Paying purposeful attention

2. to the present moment

3. without judgment (aka, with acceptance).



MINDFULNESS

Paying purposeful attention

Unpleasant physical sensations suck you in, making it difficult to pay attention to anything else.

Example: 1tsp of salt in 1tsp of water tastes like salt; 1 tsp salt in a gallon of water tastes like water

When it's diluted, it's not gone; it's just not as overpowering

Goal of mindfulness is not to ignore unpleasant sensations/experiences, but to take a bird's eye view and open our awareness up to all our other experiences and sensations. This allows us to put unpleasant sensations/experiences on the back burner and to choose what we put on the front burners.



MINDFULNESS

To the present moment

“We may never quite be where we actually are...” –

The opposite of mindfulness is mindlessness, or autopilot. This is what happens when our bodies and our minds are in different places.

Example #1: Driving/riding your usual route to work and realizing you don't remember the drive.

Where do we go on autopilot?

Past (regrets, ruminations, memories)

Future (worries, plans)

The problem with this is that spending all our time in the past or future is not healthy for our bodies or our minds.



MINDFULNESS

To the present moment

Example:

You go into your first training session and your trainer asks you to perform a certain exercise

Past: “Here we go again. Last time I did this exercise, I was out of commission for days.”

Future: “What if I get injured?” “What if I can’t compete?”

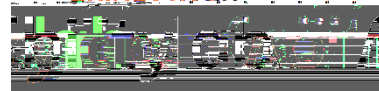
How do you think that training session is going to go?



MINDFULNESS RESOURCES

Readings:

- Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness. Jon Kabat-Zinn. 1990. Bantam Dell.
- Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life. Jon Kabat-Zinn. 1994.
- Peace is Every Step: The Path of Mindfulness in Everyday Life. Thich Nhat Hanh. 1991. Bantam Books.
- Buddha's Brain: The Practical Neuroscience of Happiness, Love and Wisdom. Rick Hanson, 2009. New



MINDFULNESS

Local resources:

- www.insightchicago.org local sanghas, classes, very friendly and welcoming.
- www.theinsightcenter.com Mindfulness Based Stress Reduction Course in Chicago

Smart phone apps for meditation:

- Insight Timer app (search by teacher or topic). Good teachers: Tara Brach, Vidyamala Burch, Sharon Salzberg, Hugh Byrne, Gil Fronsdal, Jack Kornfield. Free but variable quality. The teachers listed are high quality and very knowledgeable.
- HealthyMinds app. Free. Will not ask for money.
- Headspace and Calm free and pay versions. They get mixed reviews. They will want you to upgrade and pay a fee. Some people feel it is worth the price. Others not so much.

Shirley Ryan



HEALTHY MINDS APP

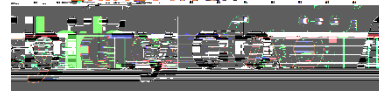


Shirley Ryan

ACKNOWLEDGEMENTS

Dr. Caryn Feldman provided content and selected resources for the mindfulness component of this lecture.

Dr. Claire Pedersen provided content for the sleep portion of this lecture.



REFERENCES

Cook JD, Charast J. Sleep performance in professional athletes. Current Sleep Medicine Reports. 2023;9:56-81.

Cameron AFM, Perera N, Fulcher M. Professional athletes have poorer sleep quality and sleep hygiene compared with an age-matched cohort. Clin J Sport Med. 2021;31:488-493.

Roberts IE, Murphy CJ, Goosey-Tolfrey VL. Sleep disruption considerations for Paralympic athletes competing at Tokyo 2020. Sports Med Phys Fitness 2021;61:1159-72.

Sleep Foundation:

<https://www.sleepfoundation.org/sleep-hygiene>

Healthline:

<https://www.healthline.com/health/sleep-hygiene>



REFERENCES

Shirley Ryan



REFERENCES

Haller H, Winkler MM, Klose P, Dobos G, Kuemmel S, Cramer H. Mindfulness-based interventions for women with breast cancer: an updated systematic review and meta-analysis. 2017;56:1665-1676.

Zhang

