

Speaker Notes

Title of Presentation: Effects of Extended Daylight and Darkness

Page 1 – none.

Page 2 – none.

Page 3 – none.

Page 4 –

- The brain tunes into the cycle of light and dark. When daylight breaks, the brain expects to become alert, and when it becomes dark, the brain expects to sleep.
- When the dark or the light parts of the cycle are removed, the brain gets confused and doesn't know whether to sleep or become alert. This can create problems with mood and sleep patterns.
- **Ask participants if they have experienced either of these phenomena and ask them to share their experiences.**

Page 5 –

- **Sleep disturbance:** It becomes hard to tell whether it's day or night. The brain interprets daylight as a time to be alert and awake. This can make sleep difficult for some people.
- **Hyperactivity:** Some people may become more active during both the day and night. For example: some people may continue to do outdoor activities late into the evening.
- **Fatigue:** Although there may be an initial boost of energy as the days begin to become longer, a result of longer hours of activity and difficulty going to sleep can lead to fatigue.
- **Irritable mood:** Fatigue and lack of sleep can lead to increased irritability.
- **Ask participants if they are aware of any other effects of the midnight sun phenomenon. The next slide will address ways to cope with midnight sun.**

Page 6 –

- **Keep daily routines as much as possible:** If possible, go to bed and get up at the same times everyday. If you begin to get up earlier and stay up late into the evening, your sleep cycle may become disrupted which can lead to some of the effects mentioned on the previous slide.
- **Have dark drapes in your bedroom:** Too much sun will suppress the brain's sleep inducing chemicals. Therefore, it's important to avoid light when trying to sleep.
- Using heavy dark drapes may help block the light so you can get to sleep.
- **Wear a sleep mask:** this will have the same effect as the dark drapes.
- **Practice relaxation exercises:** Examples: deep breathing, visualizing yourself in a relaxing scene, tensing and releasing the different muscle groups in your body.
- Relaxation can give your body and mind an opportunity to get some additional rest. If practiced just before bed, it may help you get to sleep.
- **Maintain a healthy diet:** Eating a balanced diet can help with fatigue and mood – particularly cutting back on refined sugar.
- **Exercise:** this releases endorphins which are the body's natural opiate and can help improve mood. However, don't exercise just before bed. It can energize you and initially make it difficult to wind down and get to sleep.
- **Ask participants if they have other methods they think might be helpful.**

Page 7 –

- The problem with polar nights usually begins gradually as the days become shorter in late summer or early fall, then peak during the deep winter.

- **Feelings of sadness:** The lack of sunlight can have adverse affects on mood which can result in feelings of sadness and loneliness. (The effects of the lack of sunlight will be discussed later.)
- **Detachment from people and activities:** Having feelings of sadness can cause some to withdraw from people and activities which only leads to more feelings of sadness and loneliness.
- **Lack of energy:** The lack of sunlight can cause a lack of energy as the body is not receiving signals to become alert.
- **Difficulty concentrating:** If you are having trouble staying alert and you are feeling fatigued, it can lead to problems with concentration.
- **Sleeping more than usual:** the continued darkness cues the brain and body for sleep.
- **Difficulty staying awake:** due to the darkness causing changes in brain chemistry, people may have difficulty staying awake even after 8 hrs of sleep.
- **Cravings for carbohydrates and weight gain:** (The causes for the cravings will be discussed in a later slide.)

Page 8 –

- **Stay active and maintain your daily schedule:** Resist the urge to stay in bed.
- **Eat a balanced diet and reduce consumption of simple carbs:** (The reasons for the reduction of simple carbohydrates will be discussed in the next slide.)
- **Exercise:** This helps to release the body's endorphins which contribute to feelings of well-being.
- **Develop a support network:** If extended darkness is causing feelings of sadness and loneliness, you may have a tendency to want to withdraw from friends and family. Developing a support network can provide a type of safety net when these feelings occur. Having a strong support network will also keep you from feeling so alone.
- **Consider specialized lighting to simulate outdoors:** This can provide similar positive effects that the sun naturally provides. It's best to consult with your doctor to research whether or not this is the right option for you.
- **Ask participants if they can think of other ways to manage polar nights.**

Page 9 –

- This explains why there is a craving – our bodies are naturally trying to increase the brain chemicals responsible for making us feel better.
- The problem is that most people tend to crave simple carbohydrates such as food containing refined sugar and white flour (candy, cakes, breads and pastas made with white flour, etc.). These give an initial boost, but then there is a sudden drop in the brain chemicals which can leave us feeling down and create more cravings for simple carbs. Eating complex carbs is a healthier choice.
- The following slide shows a list of simple and complex carbs.

Page 10 – This doesn't mean you can never have simple carbohydrates, it just means you need to keep tabs on how many simple carbohydrates you eat and remember that it can lead to weight gain and a craving for more simple carbohydrates.

Page 11 – none.

Page 12 – none.

Page 13 – none.

Page 14 – none.

Page 15 – none.

Page 16 – none.