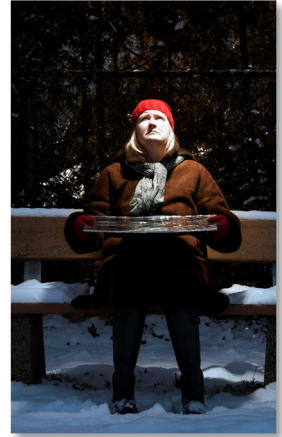


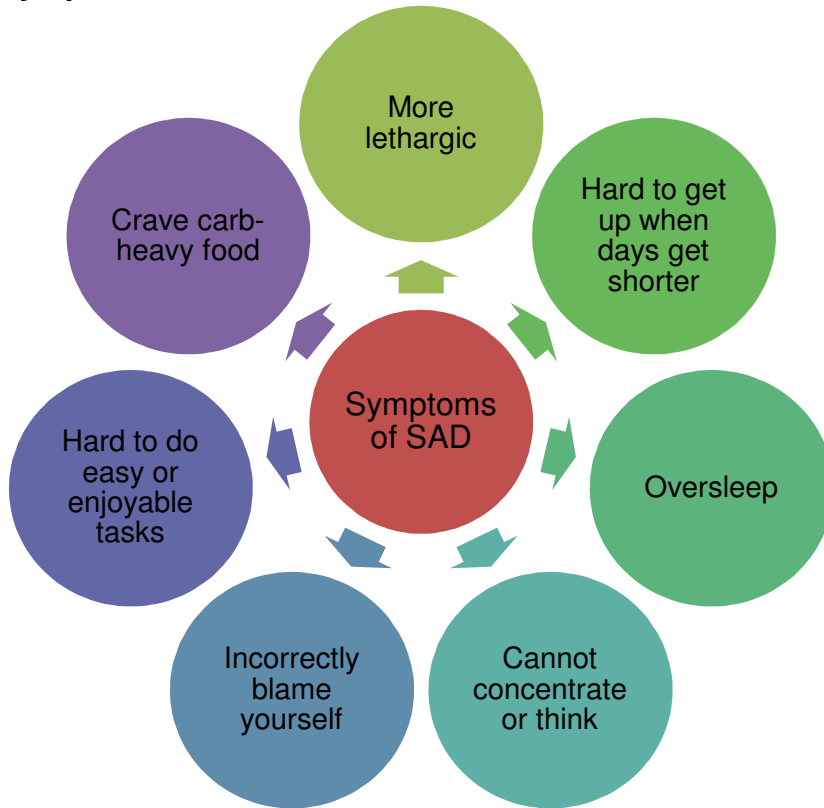
Seasonal Affective Disorder

What is Seasonal Affective Disorder (SAD) (Piccoll, 2007)

- Related to the shortening of daylight hours
- A mild to moderate form of *depression* that occurs during the fall and winter seasons
- Key feature: It is **cyclical**. It appears each year as the seasons change, and goes away during spring and summer.
- Not the same as “winter blues.” These are people who do not the diagnostic criteria for depression but still experience mild to moderate symptoms during Fall and Winter months.

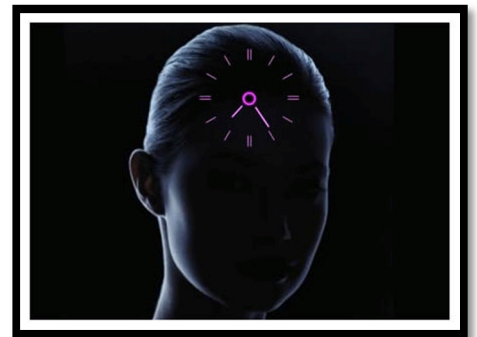


Symptoms of SAD (Piccoll, 2007)



Are you at Risk?

- Women
- > 20 years old
- Have immediate family members who have been affected
- Live in more northern latitudes



3 Main Contributors to SAD (www.mayoclinic.com, 2007)

1. **Circadian Rhythm** is your body’s internal clock. Some researchers believe that the shorter days during the winter months “confuse” your internal clock. Thus, your body has trouble regulating when to sleep and wake up.
2. **Melatonin** is a sleep related hormone. Your body normally makes more melatonin mid-late evening. It remains high for the night, and then drops in the early morning hours. Light affects how much melatonin your body produces. In the shorter days of the winter months, your body may produce melatonin earlier or later in the day than usual. This increase may lead to depression.
3. **Serotonin** is a “feel good” neurotransmitter in the brain. Less sunlight can lead to a drop in serotonin.

Treating SAD with Diet and Exercise



Minimize Carbohydrate-Rich Food

Our bodies like the feeling of high sugar and high carb food because they **boost serotonin levels** in the brain.

Unfortunately, this can result in a crash later on after the spike in your blood glucose levels have gone down. Keep your blood glucose levels stable by eating meals at regular times with snacks in between. Choose complex carbohydrates (e.g., whole grain pasta, rice, bread) and fruits and vegetables. Try incorporating omega-3 rich proteins, like salmon (Armstrong, 2007).

Staying Active during the Winter

1. Go for walks during *lunch* or before work while there is still light.
2. Go straight from work to the gym.
3. Start a winter sport like cross-country skiing, snowboarding, or skating. Even join a walking or running group.
4. Have an at-home activity, such as a workout DVD when the weather isn't great.

Other ways to Treat SAD

TIP 1. **REGULATE SLEEP** (Armstrong, 2007)

- Set a regular sleep schedule! Aim for 7-9 hours.
- Go to bed earlier so you do not oversleep (remember **↑** melatonin may lead to **↑** feelings of depression).

TIP 2. **LIGHT THERAPY** (National Health Service Choices, 2013; National Institute of Health, 2013)

- Use a **light box** - much brighter than indoor lighting.
- **↓ melatonin** and **↑ serotonin**
- Unsure of long-term benefits
- Commercially available
- *Compliance and consistency with **daily regimen** is crucial!*

TIP 3. **COGNITIVE BEHAVIOURAL THERAPY (CBT)** (Rohan, 2013)

- CBT: The way we **think** and **behave** may affect the way we **feel**.
- Meet with a CBT therapist who fosters **behavioural skills** (identify, schedule, doing enjoyable things) and **cognitive skills** (identify and challenge negative thoughts).
- Should counteract the lethargic moods and “hibernation”

TIP 4. **MEDICATION** (National Health Service Choices, 2013)

- **Selective serotonin reuptake inhibitors (SSRIs)** are the preferred type of antidepressants for SAD when symptoms are *severe*
- **↑ serotonin** = uplifted mood
- Can 4-6 weeks to kick in, should be taken as prescribed and even when you start to feel better, and a common side effect is an upset stomach

Armstrong, R. (2007). How to beat the winter blues. The Independent; Canadian Mental Health Association. (2004). Seasonal Affective Disorder; Mayo Clinic Staff (2007). Seasonal Affective Disorder. Retrieved from www.mayoclinic.com; National Health Service Choices. (2013). Seasonal affective disorder – treatment. Retrieved from www.nhs.uk; National Institute of Health. (2013). Beat the winter blues: Shedding light on seasonal sadness; Piccoli, G. (2007). Beating the Winter Blues: A practical guide on how to get through winter at Cornell. Cornell University, Gannett Health Services.