What Is Seasonal Affective Disorder (SAD)?

Many people go through short periods of time where they feel sad or not like their usual selves. Sometimes, these mood changes begin and end when the seasons change. People may start to feel “down” when the days get shorter in the fall and winter (also called “winter blues”) and begin to feel better in the spring, with longer daylight hours. If you have noticed significant changes in your mood and behavior whenever the seasons change, you may be suffering from seasonal affective disorder (SAD), a type of depression.

In most cases, SAD symptoms start in the late fall or early winter and go away during the spring and summer; this is known as winter-pattern SAD or winter depression. Some people may experience depressive episodes during the spring and summer months; this is called summer-pattern SAD or summer depression and is less common.

Signs And Symptoms

SAD is not considered a separate disorder but is a type of depression characterized by its recurrent seasonal pattern, with symptoms lasting about 4 to 5 months per year. Therefore, the signs and symptoms of SAD include those associated with major depressive disorder, and some specific symptoms that differ for winter-pattern and summer-pattern SAD. Not every person with SAD will experience all symptoms.

Symptoms may include:

- Feeling depressed most of the day, nearly every day
- Losing interest in activities and/or isolating from others
- Experiencing changes in appetite or weight
- Having problems with sleep
- Having low energy; feeling sluggish or agitated
- Feeling hopeless or worthless
- Having difficulty concentrating
- Having frequent thoughts of death or suicide

Who Develops Seasonal Affective Disorder?

Millions of American adults may suffer from SAD, although many may not know they have the condition. SAD occurs much more often in women than in men, and it is more common in those living farther north, where there are shorter daylight hours in the winter. For example, people living in Alaska or New England may be more likely to develop SAD than people living in Florida. In most cases, SAD begins in young adulthood.

SAD is more common in people with major depressive disorder or bipolar disorder, especially bipolar II disorder, which is associated with recurrent depressive and hypomanic episodes. SAD sometimes runs in families. SAD is more common in people who have relatives with other mental illnesses.
What Causes Seasonal Affective Disorder?

Scientists do not fully understand what causes SAD, but researchers have found potential causes.

- People with SAD may have reduced levels of serotonin, the brain chemical that helps regulate mood.
- Sunlight controls the levels of molecules that help maintain normal serotonin levels, but in people with SAD, this regulation does not function properly, resulting in decreased serotonin levels in the winter.
- People with SAD produce too much melatonin—a hormone that is central for maintaining the normal sleep-wake cycle. Overproduction of melatonin can increase sleepiness.
- Deficits in vitamin D may exacerbate these problems because vitamin D is believed to promote serotonin activity. In addition to vitamin D consumed with diet, the body produces vitamin D when exposed to sunlight on the skin. With less daylight in the winter, people with SAD may have lower vitamin D levels, which may further hinder serotonin activity.

Can Seasonal Affective Disorder Be Prevented?

Since the timing of the onset of winter-pattern SAD is so predictable, people with a history of SAD might benefit from starting the treatments mentioned below before autumn begins to help prevent or reduce depression.

Preventative Treatment

Treatments are available that can help many people with SAD. They fall into four main categories that may be used alone or in combination:

- Light therapy: For this treatment, the person sits in front of a very bright light box (10,000 lux) every day for about 30 to 45 minutes, usually first thing in the morning, from fall to spring. The light box, which is about 20 times brighter than ordinary indoor light, filters out the potentially damaging UV light, making this a safe treatment for most individuals.
- Psychotherapy: Cognitive behavioral therapy (CBT) has been adapted for people with SAD (CBT-SAD). It is typically conducted in two weekly group sessions for 6 weeks and focuses on replacing negative thoughts related to the winter season (e.g., about the darkness of winter) with more positive thoughts. CBT-SAD also uses a process called behavioral activation, which helps individuals identify and schedule pleasant, engaging indoor or outdoor activities to combat the loss of interest they typically experience in the winter.
- Antidepressant medications: Since SAD, like other types of depression, is associated with disturbances in serotonin activity, antidepressant medications called selective serotonin reuptake inhibitors (SSRIs) are also used to treat SAD when symptoms occur. These agents can significantly enhance patients' moods.
- Vitamin D: Since many people with SAD often have vitamin D deficiency, nutritional supplements of vitamin D may help improve their symptoms. However, studies testing whether vitamin D is effective in SAD treatment have produced mixed findings, with some results indicating that it is as effective as light therapy but others detecting no effect.