

[depression](#)

## Seasonal Affective Disorder (SAD)

**Do you get depressed during the dark days of late fall and winter? You might have seasonal depression.**



### **What is seasonal affective disorder (SAD)?**

Seasonal affective disorder (SAD) is a form of depression that occurs at the same time each year, usually in winter. Otherwise known as seasonal depression, SAD can affect your mood, sleep, appetite, and energy levels, taking a toll on all aspects of your life from your relationships and social life to work, school, and your sense of self-worth. You may feel like a completely different person to who you are in the summer: hopeless, sad, tense, or stressed, with no interest in friends or activities you normally love.

While a less common form of the disorder causes depression during the summer months, SAD usually begins in fall or winter when the days become shorter and remains until the brighter days of spring or early summer. SAD affects about 1% to 2% of the population, [particularly women](#) and young people, while a milder form of winter blues may affect as many 10 to 20 percent of people.

Since the amount of winter daylight you receive changes the farther you are from the equator, SAD is most common in people who live at least 30 degrees latitude north or south (north of places such as Jacksonville, Florida, Austin, Texas, Cairo, Egypt, and Hangzhou, China, or south of Perth, Australia, Durban, South Africa, and Cordoba, Argentina). No matter where you live, though, or how dark and cold the winters, the good news is that, like other forms of depression, SAD is treatable.

## **Do I have seasonal affective disorder (SAD)?**

The reduced light, warmth, and color of winter leaves lots of people feeling a little more melancholy or tired—and isn't necessarily something to worry about. But if your symptoms crop up around the same time each year, have a real impact on your quality of life, and improve when the seasons change, you may have seasonal affective disorder.

1. I feel like sleeping all the time, or I'm having trouble sleeping
2. I'm so tired it's tough to carry out daily tasks
3. My appetite has changed, particularly more cravings for sugary and starchy foods
4. I'm gaining weight
5. I feel sad, guilty and down on myself
6. I feel hopeless
7. I'm irritable
8. I'm avoiding people or activities I used to enjoy
9. I feel tense and stressed
10. I've lost interest in sex and other physical contact

## **Signs and symptoms of seasonal affective disorder**

The signs and symptoms of seasonal affective disorder are the same as those for [major depression](#). SAD is distinguished from depression by the remission of symptoms in the spring and summer months (or winter and fall in the case of summer SAD).

## **Common symptoms include:**

- Depressed mood, low self-esteem
  - Loss of interest or pleasure in activities you used to enjoy
  - Appetite and weight changes
  - Feeling angry, irritable, stressed, or anxious
  - Unexplained aches and pains
- 
- Changes in sleeping pattern
  - Difficulty concentrating
  - Fatigue and lack of energy; reduced sex drive
  - Use of drugs or alcohol for comfort
  - Feelings of sadness, hopelessness, and despair

As with depression, the severity of SAD symptoms can vary from person to person—often depending on genetic vulnerability and geographic location. For many, the symptoms usually begin mildly at the start of fall and get progressively worse through the darkest days of winter. Then, by spring or early summer, the symptoms lift until you're in remission and feel normal and healthy again.

To be clinically diagnosed with seasonal affective disorder, you need to have experienced these cyclical symptoms for two or more consecutive years. Regardless of the timing or persistence of your symptoms, if your depression feels overwhelming and is adversely affecting your life, it's time to seek help.

## **If You Are Feeling Suicidal...**

Whatever the season, when you're feeling depressed your problems may not seem temporary—they can seem overwhelming and permanent. But you will feel better. If you are feeling suicidal, know that there are many people who want to support you during this difficult time, so please reach out for help.

Read [Suicide Help](#), call **1-800-273-TALK** in the U.S. or visit [IASP](#) or [Suicide.org](#) to find a helpline in your country.

## Causes of seasonal affective disorder

While the exact causes of seasonal affective disorder are unclear, most theories attribute the disorder to the reduction of daylight hours in winter. The shorter days and reduced exposure to sunlight that occurs in winter are thought to affect the body by disrupting:

**Circadian rhythms.** Your body's internal clock or [sleep-wake cycle](#) responds to changes between light and dark to regulate your sleep, mood, and appetite. The longer nights and shorter days of winter can disrupt your internal clock—leaving you feeling groggy, disoriented, and sleepy at inconvenient times.

**Production of melatonin.** When it's dark, your brain produces the hormone melatonin to help you sleep and then sunlight during the day triggers the brain to stop melatonin production so you feel awake and alert. During the short days and long nights of winter, however, your body may produce too much melatonin, leaving you feeling drowsy and low on energy.

**Production of serotonin.** The reduced sunlight of winter can lower your body's production of serotonin, a neurotransmitter that helps to regulate mood. A deficit may lead to depression and adversely affect your sleep, appetite, memory, and sexual desire.

### Summer of SAD

The less common form of SAD, summer depression, begins in late spring or early summer and ends in fall. Instead of being attributed to shorter days and reduced sunlight, experts believe that summer SAD is caused by the opposite—longer days and increased heat and humidity, possibly even an upswing in seasonal allergies.

Many summer SAD symptoms are the same as those for winter depression, although there are some differences. The longer daylight hours and shorter nights mean that if you have summer SAD, you're more likely to sleep too little rather than too much. To promote sleep, your doctor may suggest taking melatonin supplements to make up for your body's lower production. Changing your sleeping patterns by going to bed earlier at night (as soon as it gets dark in some cases) and rising earlier in the morning can also help to reset your body's circadian rhythms.

As with any form of depression, there can be many different causes and contributing factors

for seasonal affective disorder. Always consult your doctor for an accurate diagnosis and see the lifestyle changes outlined below for help to boost your mood and manage your depression symptoms.

## **Risk factors**

Seasonal affective disorder can affect anyone but is most common in people who live far north or south of the equator. This means you'll experience less sunlight in the winter months and longer days during the summer. Other risk factors include:

**Your gender.** While 3 out of 4 sufferers of SAD are women, men often experience more severe symptoms.

**Your age.** In most cases, winter SAD is first diagnosed in people aged 18 to 30 and is less likely to occur as you get older.

**Your family history.** Having relatives who've experienced SAD or another type of depression puts you at greater risk.

## **Seasonal bipolar disorder**

The changes in seasons can trigger mood changes in some people with bipolar disorder. Spring and summer may trigger symptoms of mania or hypomania, while the onset of fall and winter can bring on symptoms of depression. While the depression symptoms of SAD and bipolar disorder can look alike, there are significant differences, especially when it comes to treatment. See [Bipolar Disorder Signs and Symptoms](#).

## **Self-help for SAD tip 1: Get as much natural sunlight as possible - it's free!**

Seasonal depression can make it hard to motivate yourself to make changes, but there are plenty of steps you can take to help yourself feel better. Recovery takes time but you'll likely feel a little better each day. By adopting healthy habits and scheduling fun and relaxation into your day, you can help lift the cloud of seasonal affective disorder and keep it from coming back.

Whenever possible, get outside during daylight hours and expose yourself to the sun without

wearing sunglasses (but never stare directly at the sun). Sunlight, even in the small doses that winter allows, can help boost serotonin levels and improve your mood.

- Take a short walk outdoors, have your coffee outside if you can stay warm enough.
- Increase the amount of natural light in your home and workplace by opening blinds and drapes and sitting near windows.
- Some people find that painting walls in lighter colors or using daylight simulation bulbs helps to combat winter SAD.

## **Tip 2: Exercise regularly—it can be as effective as medication**

[Regular exercise](#) is a powerful way to fight seasonal depression, especially if you're able to exercise outside in natural daylight. Regular exercise can boost serotonin, endorphins, and other feel-good brain chemicals. In fact, exercise can treat mild to moderate depression as effectively as antidepressant medication. Exercise can also help to improve your sleep and boost your self-esteem.

**Find exercises that are continuous and rhythmic.** The most benefits for depression come from rhythmic exercise—such as walking, weight training, swimming, martial arts, or dancing—where you move both your arms and legs.

**Aim for 30 to 60 minutes of activity on most days.** Even something as simple as [walking a dog](#), for example, can be good exercise for you and the animal, as well as a great way to get outdoors and interact with other people.

## **Tip 3: Reach out to family and friends—and let them help**

Close relationships are vital in reducing isolation and helping you manage SAD. Participate in social activities, even if you don't feel like it. It may feel more comfortable to retreat into your shell, but being around other people will boost your mood. Even if you've retreated from relationships that were once important to you, make the effort to reconnect or start new relationships.

**Call or email an old friend to meet for coffee.** Or [reach out to someone new](#)—a work colleague or neighbor, for example. Most of us feel awkward about reaching out, but be the

one to break the ice.

**Join a support group for depression.** Sometimes, just talking about what you're going through can help you feel better. Being with others who are facing the same problems can help reduce your sense of isolation and provide inspiration to make positive changes.

**Meet new people** with a common interest by taking a class, joining a club, or enrolling in a special interest group that meets on a regular basis. Whatever you choose, make sure it's something that's fun for you.

**Volunteer your time.** [Helping others](#) is one of the best ways to feel better about yourself, expand your social network, and overcome SAD.

## Tip 4: Eat the right diet

Eating small, well-balanced meals throughout the day, with plenty of fresh fruit and vegetables, will help you keep your energy up and minimize mood swings.

- While the symptoms of SAD can make you crave [sugary foods and simple carbohydrates](#), such as pasta and white bread, complex carbohydrates are a better choice. Foods such as oatmeal, whole grain bread, brown rice, and bananas can boost your feel-good serotonin levels without the subsequent sugar crash.
- Foods rich in certain [omega-3 fats](#)—such as oily fish, walnuts, soybeans, and flaxseeds—can also improve your mood and may even boost the effectiveness of antidepressant medication.

## Tip 5: Take steps to deal with stress

Whatever the time of year, [too much stress](#) can exacerbate or even trigger depression.

**Figure out the things in your life that stress you out**, such as work overload or unsupportive relationships, and make a plan to avoid them or minimize their impact.

**Practicing daily relaxation techniques** can help you manage stress, reduce negative emotions such as anger and fear, and boost feelings of joy and well-being. Try yoga, meditation, or [progressive muscle relaxation](#).

**Do something you enjoy (or used to) every day.** While you can't force yourself to have fun or experience pleasure, you can push yourself to do things, even when you don't feel like



it. You might be surprised at how much better you feel once you're out and about. [Having fun](#) is a great stress buster, so make time for leisure activities that bring you joy, whether it be painting, playing the piano, working on your car, or simply hanging out with friends.

## Treatment for seasonal affective disorder: Light therapy

The mainstay of winter SAD treatment is light therapy, otherwise known as phototherapy. Light therapy aims to replace the missing daylight of winter by exposing you to bright light that mimics natural outdoor light. Daily exposure can suppress the brain's secretion of melatonin to help you feel more awake and alert, less drowsy and melancholy.

Light therapy has been shown to be effective in up to 85 percent of SAD cases. However, the timing and length of exposure needed can vary according to your symptoms and circadian rhythm, so you'll need guidance from your doctor or mental health professional to find the right dosage. Your doctor or therapist can also help you choose a light therapy product that's both effective and safe. (While tanning beds generate sufficient light, they should never be used to treat SAD as the UV rays they produce can be harmful to the skin and eyes.)

Light therapy has to be continued daily throughout the winter months to be effective. Starting light therapy before the onset of symptoms in the fall may even help prevent seasonal affective disorder.

### Two different ways of administering light therapy

**1. A light box** delivers light that with up to ten times the intensity of normal domestic lighting. In most cases, you simply sit about 12 inches in front of a 10,000-lux light box for 15 to 30 minutes each morning. The light box emits a controlled amount of white light, with harmful ultraviolet (UV) rays filtered out.

While the light needs to enter the eyes, you shouldn't stare directly at the light box, but rather continue your morning routine, such as eating breakfast, reading the newspaper or working at the computer. Most people notice an improvement in their SAD symptoms after a few days and experience the full antidepressant effect in about two weeks.

You can buy a light box without a prescription, although you may want to work with a professional to monitor the benefits of the treatment. While light therapy carries few side



effects, consult your doctor about any eye or skin problems before using a light box. Also, beware that light therapy may trigger a manic episode if you have bipolar disorder.

**2. A dawn simulator** is a device that gradually increases the amount of light in your bedroom in the morning to simulate the rising sun and wake you up. The light gradually increases, just as natural sunlight does, over a period of 30 to 45 minutes. Instead of waking in darkness, you wake to what looks like a sunny morning. This can help reset your circadian rhythm and improve your mood. While light boxes may trigger hypomania or mania in those with bipolar disorder, there is no such risk with a dawn simulator.

## Medication and psychotherapy for seasonal affective disorder

While light therapy is often a highly effective treatment for SAD or the winter blues, it doesn't work for everyone. If that's the case, don't despair, there are other effective treatment options available and plenty of self-help techniques to help you feel better.

**Cognitive behavioral therapy (CBT)** can be highly beneficial for people with seasonal depression. [The right therapist](#) can help you curb negative thoughts, attitudes, and behaviors that make the disorder worse and help you learn how to manage symptoms and deal with stress in healthy ways. For many people, CBT can be as effective at treating seasonal affective disorder as light therapy or antidepressants, but without any risky side-effects.

**Medication.** If light therapy doesn't work for you, your doctor may suggest antidepressant medication. SSRI antidepressants work by acting on serotonin levels in the brain to reduce SAD symptoms. In the U.S., the FDA has specifically approved the drug bupropion (Wellbutrin) to treat seasonal affective disorder. However, [as with all antidepressants](#), there may be adverse side effects, including a number of safety concerns specific to children and young adults. It's important to weigh the benefits against the risks before starting on medication.

Whatever treatment plan you settle on, it's important to combine it with self-help techniques to help manage your depression symptoms and even help prevent seasonal affective disorder returning next year.

Authors: Lawrence Robinson and Jeanne Segal, Ph.D.

Last updated: July 2021

- References

Yeom, J. W., Cho, C.-H., Jeon, S., Seo, J. Y., Son, S., Ahn, Y.-M., Kim, S. J., Ha, T. H., Cha, B., Moon, E., Park, D. Y., Baek, J. H., Kang, H.-J., An, H., & Lee, H.-J. (2021). Bipolar II disorder has the highest prevalence of seasonal affective disorder in early-onset mood disorders: Results from a prospective observational cohort study. *Depression and Anxiety*, 38(6), 661–670. <https://doi.org/10.1002/da.23153>

Galima, S. V., Vogel, S. R., & Kowalski, A. W. (2020). Seasonal Affective Disorder: Common Questions and Answers. *American Family Physician*, 102(11), 668–672. <https://www.aafp.org/afp/2020/1201/p668.html>

Welberg, L. (2007). Less SAD with more sun and serotonin. *Nature Reviews Neuroscience*, 8(11), 812–812. <https://doi.org/10.1038/nrn2263>

Rohan, K. J., Meyerhoff, J., Ho, S.-Y., Evans, M., Postolache, T. T., & Vacek, P. M. (2016). Outcomes One and Two Winters Following Cognitive-Behavioral Therapy or Light Therapy for Seasonal Affective Disorder. *American Journal of Psychiatry*, 173(3), 244–251. <https://doi.org/10.1176/appi.ajp.2015.15060773>

Morales-Muñoz, I., Koskinen, S., & Partonen, T. (2018). The effects of seasonal affective disorder and alcohol abuse on sleep and snoring functions in a population-based study in Finland. *Journal of Sleep Research*, 27(4), e12611. <https://doi.org/10.1111/jsr.12611>

Pjrek, E., Friedrich, M.-E., Cambioli, L., Dold, M., Jäger, F., Komorowski, A., Lanzenberger, R., Kasper, S., & Winkler, D. (2020). The Efficacy of Light Therapy in the Treatment of Seasonal Affective Disorder: A Meta-Analysis of Randomized Controlled Trials. *Psychotherapy and Psychosomatics*, 89(1), 17–24. <https://doi.org/10.1159/000502891>

Depressive Disorders. (2013). In *Diagnostic and Statistical Manual of Mental Disorders*. American Psychiatric Association.

<https://doi.org/10.1176/appi.books.9780890425596.dsm04>

## **Depression support**

**In the U.S.:** Find [DBSA Chapters/Support Groups](#) or call the [NAMI Helpline](#) for support and referrals at 1-800-950-6264

**UK:** Find [Depression support groups](#) in-person and online or call the [Mind Infoline](#) at 0300 123 3393

**Australia:** Find [Support Groups](#) and regional resources or call the [SANE Help Centre](#) at 1800 18 7263

**Canada:** Call [Mood Disorders Society of Canada](#) at 519-824-5565