

# Seasonal Affective Disorder

With Dr. Norman Rosenthal

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## A Snapshot of Dr. Rosenthal:

[WebMD](#) offers the following biography of Dr. Rosenthal:

Norman Rosenthal, MD, is best known as the psychiatrist and scientist who first described seasonal affective disorder (SAD) or winter depression, and pioneered the use of light in its treatment during his long and distinguished career as a National Institute of Mental Health researcher. For this work he was awarded the prestigious Anna Monika Award, an international prize for research in depression. He has conducted extensive research into disorders of mood, sleep, and biological rhythms, which has resulted in over 200 scholarly publications.

Besides his scholarly writings, Rosenthal has also written several books for the public, including *Winter Blues: Seasonal Affective Disorder: What It Is and How to Overcome It* ; *How to Beat Jet Lag: A Practical Guide for Air Travelers*; and *St. John's Wort: The*

*Herbal Way to Feeling Good*; and *The Emotional Revolution: How the New Science of Feelings can Transform Your Life*. Rosenthal's skill at communicating complex scientific material in a way that is both readily understandable and engaging has made him a popular TV and radio guest. He has appeared on many national shows including *Good Morning America*, *CBS Sunday*, *CBS Morning News*, *CNN*, *Fresh Air*, *All Things Considered*, *ESPN*, and *The Today Show*, to name just a few.

Rosenthal is the medical director of Capital Clinical Research Associates (CCRA) and maintains an active private practice in suburban Maryland. He has been listed among *The Best Doctors in America* and in the *Guide to America's Top Psychiatrists*.

## S.A.D. Overview

Sourced from Dr. Rosenthal's professional [website](#): "My colleagues and I first described SAD in a journal article in 1984, based on a group of people we studied in Maryland in the U.S. Since then, others have described the same condition in many different parts of the world, including both northern and southern hemispheres."

According to [Medline](#): Seasonal affective disorder is a mental health condition that is triggered by the changing of the seasons. This condition is a subtype of major depressive disorder and bipolar disorder. Major depressive disorder is characterized by prolonged sadness and a general lack of interest, while bipolar disorder is characterized by similar depressive episodes alternating with periods of abnormally high energy and activity (hypomania or mania). People with seasonal affective disorder have signs and

symptoms of either major depressive disorder or bipolar disorder only during certain months of the year. Major depressive disorder is more common than bipolar disorder among people with seasonal affective disorder. This condition usually begins in a person's twenties or thirties.

The signs and symptoms that occur during depressive episodes in people with seasonal affective disorder are similar to those of major depressive disorder, including a loss of interest or enjoyment in activities, a decrease in energy, a depressed mood, and low self-esteem. In most people with seasonal affective disorder, [depression](#) and other features appear in the fall and winter months and subside in the spring and summer months. In these individuals, additional symptoms often include weight gain due to increased cravings for carbohydrates and an increase in sleep (hypersomnia). Affected individuals with underlying bipolar disorder typically have alternating episodes of depression in the fall and winter months and mania during the spring and summer months.

In about 10 percent of people with seasonal affective disorder, the condition has the opposite seasonal pattern, occurring in the spring and summer months and stopping during the fall and winter months. These individuals usually have a loss of appetite and sleep, unlike those with symptoms in the fall and winter.

For those affected, it is estimated that symptoms of seasonal affective disorder are present during 40 percent of the year. In some individuals, seasonal affective disorder does not recur every year. Thirty to 50 percent of affected individuals do not show symptoms of the disorder in consecutive winters. In about 40 percent of individuals with

seasonal affective disorder, depressive episodes continue after winter and do not alleviate in the summer months, leading to a change in diagnosis to either major depressive disorder or bipolar disorder.

Individuals with seasonal affective disorder tend to have another psychological condition, such as attention-deficit/hyperactivity disorder (ADHD), an eating disorder, anxiety disorder, or panic disorder.

## Frequency

The prevalence of SAD increases the further people live from the equator. In one study of people at four different locations in the U.S., for example, my colleagues and I found that in Florida, the prevalence of SAD was only 1.5% of the population, whereas in New Hampshire, it was almost 10%.<sup>2</sup> (Source)

Seasonal affective disorder occurs in 0.5 to 3 percent of individuals in the general population; it affects 10 to 20 percent of people with major depressive disorder and about 25 percent of people with bipolar disorder.

Some individuals have a condition known as subsyndromal seasonal affective disorder or seasonality, which is more common than seasonal affective disorder. These individuals have only mild changes in mood that correspond with the changes in seasons.

# Causes

The causes of seasonal affective disorder are complex. A shortage of sunlight contributes to the development of the disorder in the fall and winter months, and too much sunlight is associated with seasonal affective disorder in the spring and summer months. Affected individuals seem to have disrupted daily (circadian) rhythms, such as the sleep-wake cycle, which are normally regulated to match the night-day cycle. These individuals cannot alter their sleep-wake cycle to match the night-day cycle of the winter months, resulting in changes in sleep, mood, and behavior. Those with seasonal affective disorder in summer have difficulty adjusting to the increased daylight hours. It is likely that affected individuals are genetically predisposed to being unable to adjust their circadian rhythms. Studies have identified variants in multiple genes that are associated with developing seasonal affective disorder. However, few of these variants have been verified in multiple studies.

Most genes that have been implicated in seasonal affective disorder are active (expressed) in the brain, where they are involved in the regulation of circadian rhythms. Some of these genes play a role in the expression of certain genes at specific times during the day or night, which helps set circadian rhythms. Others are involved in the production of chemical messengers in the brain known as neurotransmitters, specifically dopamine and serotonin. Dopamine can be converted into hormones that control blood pressure and body temperature, which change depending on the time of day. Serotonin can be converted into a hormone called melatonin, which signals to the brain that it is time to sleep.

Abnormal regulation of circadian rhythms likely contribute to an individual's inability to match his or her circadian rhythms to changes in seasons, resulting in changes in sleep, mood, and behavior as daylight hours change. However, little is known about what causes certain individuals to be more sensitive to the changing of the seasons than others. ([Source](#))

## Diagnosis

According to [The National Institute of Mental Health](#):

To be diagnosed with SAD, a person must meet the following criteria:

- They must have symptoms of major depression or the more specific symptoms listed above.
- The depressive episodes must occur during specific seasons (i.e., only during the winter months or the summer months) for at least 2 consecutive years. However, not all people with SAD do experience symptoms every year.
- The episodes must be much more frequent than other depressive episodes that the person may have had at other times of the year during their lifetime.

# Treatment

Further sourced from Dr. Rosenthal's website: The good news about SAD is that there are lots of things that you can do to treat it effectively. In my experience, when these treatments are added together (because a combination is usually better than any single treatment), most people can treat their SAD symptoms well enough to function through the winter – though you might never feel quite as good as you do in summer.

Here then, are the major ways for treating SAD, in more or less their order of effectiveness:

## 1. LIGHT THERAPY

Put simply, light therapy involves bringing more light into one's environment during the dark days (winter, cloudy weather, basement apartments, windowless offices etc). This can be done naturally by getting outdoors on a dark day, especially in the morning. Practically speaking, it is hard to do especially on a cold and busy winter day. You can bring more indoor light into your home or office by means of regular lamps. The most practical way, however, to treat yourself with artificial light therapy is by means of special light fixtures, also known as light boxes.

When it comes to choosing a light box, there are many offerings on the marketplace. These are the important considerations in choosing a light box: (1) It should be of a certain size – the surface area from which the light comes should be at least one foot square. In my opinion, the smaller boxes are less effective – though this has not been

tested by research. (2) Fluorescents are best. The new LED-based light boxes have not been as well tested for safety and efficacy. (3) White is better than blue. Although the blue may seem cool, it just hasn't been as well tested as the white, and some experts have voiced safety concerns about it.

## 2. STRESS MANAGEMENT

During the winter, people with Seasonal Affective Disorder have a reduced ability to handle stress, which can push them deeper into depression. I recommend that you do whatever you can to minimize stress. This means thinking about winter ahead of time. For example, do not undertake projects with a spring deadline attached to them because you know ahead of time that that will put you under stress during the winter.

One of the most effective ways to reduce stress is meditation. I have been enormously helped in managing my own SAD symptoms since regularly practicing Transcendental Meditation (TM), and many others have found this practice equally helpful. Others have found relief from stress through other forms of meditation – such as mindfulness, which includes insight meditation (Vipassana), loving-kindness, open field meditation (such as monitoring one's breathing), and walking meditation. Yoga can also be highly beneficial for reducing stress and keeping you limber in the months, when one tends to become a couch potato.

## 3. EXERCISE

Talking of being a couch potato, regular exercise can be an extremely helpful SAD-busting technique. You ought to do it for your general health anyway, so why not capitalize on the two-for-one benefit and do it for your mental health as well? I regularly walk briskly outdoors in the morning, which I greatly enjoy not only for the exercise, but also because it connects me with nature, my neighborhood and my neighbors. There are many forms of exercise, however, and the greatest predictor of a successful exercise program is your ability to stick to it.

#### 4. TALK THERAPY (ALSO KNOWN AS PSYCHOTHERAPY)

Being depressed is lonely, and for many people, it helps to have a coach to guide you through the process. A good therapist will help you implement some of the suggestions listed in this section. In addition, there is evidence that cognitive behavior therapy (CBT) can be specifically helpful to people with SAD, not only helping them get through the winter, but even reducing the chance that they will become depressed the following winter.

#### 5. ANTIDEPRESSANT MEDICATIONS

For many people, antidepressants are a valuable part of their SAD management regimen. These should be prescribed by someone with an understanding of SAD, who can incorporate them into the overall regimen. In general, the more effective the other aspects of an anti-SAD regimen are, the fewer antidepressants will be needed, which is a good thing as it minimizes side-effects. On the other hand, if you do need antidepressants, as confirmed by a psychiatrist, I recommend that you use them.

Remember, you may need different dosages of antidepressants at different points in the fall and winter as the amount of sunlight waxes and wanes. Many different forms of antidepressants can be helpful. In one study, my colleagues and I found that giving the antidepressant bupropion-XL in the autumn, before symptoms arose, helped prevent the subsequent onset of SAD symptoms.

## 6. TAKE TRIPS TO SUNNY PLACES

You know where those sunny places are but, unless you plan in advance, you may feel too tired, unmotivated and down, to plan a trip when you need it the most. Take a look at a trip I took recently to Paradise Island in the Bahamas as “rescue medication” when my usual anti-SAD regimen wasn’t working.

## 7. WATCH YOUR DIET

People with Seasonal Affective Disorder often crave sweets and starches. Although these may boost energy briefly, there is often a rebound when people feel tired and lethargic and are driven to – you guessed it – gorge on more sweets and starches. The unwelcome result is extra pounds on the hips or belly, which are hard to take off when winter is over, not to mention bad for your health.

Encourage people to eat diets high in proteins, vegetables, unprocessed foods and complex carbohydrates. Check out my blog on the benefits of slow cooked Irish steel cut oatmeal, which can be made in a batch so as to provide breakfast for the entire

week – a boon for the hassled SAD sufferer, struggling to get out the door on a winter morning.

## 8. RELOCATION

If all else fails, you can always move further south, though this is of course a major life change and needs to be carefully thought through. In *Winter Blues*, I outline some of the considerations required before such a major move is undertaken.

## Additional Resources

- [THE RECENT HISTORY OF SEASONAL AFFECTIVE DISORDER \(SAD\)](#)
- [Seasonal Affective Disorder and COVID-19](#)
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