## A Brief Guide to Seasonal Affective Disorder (SAD): Diagnosis and Treatment

From the Man Who Discovered SAD to Make People Happy





Norman E. Rosenthal, M.D.

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## Disclaimer

It is very important to acknowledge up front that neither this short guide nor any book can be a substitute for proper medical care. If any of you out there reading this is currently suffering from depression or the symptoms that I outline below, please consider consulting an appropriate professional. This is not—and I repeat not—a substitute for medical care. However, as one retailer used to say, "An educated consumer is our best customer." I have always believed that whatever medical problem ails you, you will get the best care for that problem if you are well informed about it.

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## About the author

Dr. Norman E. Rosenthal is the world-renowned psychiatrist and author whose research in describing seasonal affective disorder (SAD) has helped millions of people. His 2011 book *Transcendence* was a New York Times bestseller, and his latest book, *The Gift of Adversity*, was a Los Angeles Times bestseller.



## As featured in:





## Introduction:

First of all, welcome to this brief guide. My name is Dr. Norman Rosenthal and I have been working in the field of Seasonal Affective Disorder ever since my colleagues and I first described the condition about thirty years ago. Since then I have done a great deal of research on the subject and have treated hundreds of people with the condition—myself included. As some of you may know, one of the reasons that I recognized that SAD exists and can be a major source of inconvenience and suffering is my own experience. It is only after I emigrated from sunny South Africa and came to North America that I first developed the symptoms of SAD, and unpleasant as they were and are, the adversity turned out to be a gift (as adversity often is). It is my own experience with SAD that has motivated me to devote many years of my professional life to understanding and treating the condition. It is that understanding that I would like to share with you here.

## What is Seasonal Affective Disorder?

Seasonal Affective Disorder (SAD) is a condition in which low mood, low energy, and related symptoms occur regularly each year in the same season and get better at the opposite time of year. The most common form of SAD occurs in the autumn and winter and gets better in the spring and summer. The second most common form of SAD has the reverse pattern: people feel worse in the spring and summer and better in the autumn and winter. This second form of SAD has been called summer–SAD. Some unfortunate people suffer from both the winter and the summer forms of SAD. In this e-book I will confine my discussion to the more common, winter form of SAD.

One term that you may come across in reading about SAD is "seasonal pattern." You may wonder, "What is the difference between SAD and "seasonal pattern?" The answer is that there is really no difference. "Seasonal pattern" is the term used for SAD in the standard manual of psychiatric disorders (currently DSM-V). For example, in DSM-V, a person may have "major depressive disorder with seasonal pattern. I mentioned this here simply to clarify a point that could be confusing. In general people simply say they have seasonal affective disorder or SAD or, in milder cases, the Winter Blues. I will discuss the distinction between SAD and the Winter Blues below.





## What are the symptoms of SAD?

Although the term SAD makes you think of sadness or depression, and although SAD is classified as a form of depression or mood disorder, feelings of sadness and depression are actually late to appear in the sequence of symptoms typical of the condition. Often the symptoms of SAD occur in a cascade starting (at least in the northern hemisphere) as early as August but more commonly in September or October, and going all the way through till March, April, or May. I list the symptoms below approximately in the sequence in which they usually appear. But remember, everybody is different so the sequence can vary from one person to the next.

- 1. Difficulty waking up in the morning
- 2. Decreased energy or fatigue
- 3. Cravings for sweets and starches
- 4. Appetite increase
- 5. Weight gain
- 6. Difficulty concentrating
- 7. Less interest in sex
- 8. Withdrawal from friends or family
- 9. Feelings of depression, anxiety, or irritability

As you can imagine, the early symptoms of SAD can cause further difficulties, feeling tired and having trouble concentrating makes it hard to get things done. Craving sweets and starches, which people with SAD often find gives them an energy boost, leads to feelings of lack of control and overweight, that in turn often makes people feel worse about themselves. Withdrawal from friends and family puts a strain on relationships, as does decreased interest in sex and difficulty getting things done. All of this is to say that the early symptoms of SAD pile up as the season advances and their cumulative effect compounds feelings of depression and failure. People with SAD worry justifiably about getting things done on time or performing up to scratch, resulting in anxiety. Like hibernating bears or squirrels, they don't want to be bothered with interruptions or demands and become irritable or angry when that happens. As you can see when people have a severe case of SAD—as evidenced by many of the symptoms listed above—it is a serious matter. However, the severity of SAD symptoms is quite variable as I discuss below.





# How bad is your SAD?

One of the first measures that my colleagues and I developed when we began our research on SAD at the National Institute of Mental Health (NIMH) was a questionnaire aimed at measuring how much seasonal change an individual had experienced. We called this the Seasonal Pattern Assessment Questionnaire (SPAQ), which I reproduce in full below. The SPAQ has been used in many studies around the world, which have helped us to understand the frequency of SAD and Winter Blues, as well as its distribution at different latitudes and different parts of the world. If you are interested in finding out seasonal you are, go ahead and fill out the SPAQ and then I'll tell you how to go about scoring it.

By answering the following three questions, you can help determine if you are likely to experience SAD or the winter blues.

In the following questions, fill in the circles for all applicable months. This may be a single month
a cluster of months, ● ● ●, or any other grouping.

At what time of year do you...

	Jan Feb Jul Sep Oct Nov Dec		
A. Feel best	000000000000	0	
B. Tend to gain most weight	000000000000	0	No
C. Socialize most	000000000000	0	particular
D. Sleep least	000000000000	0	months
E. Eat most	00000000000	0	stand out
F. Lose most weight	000000000000 <sup>or</sup>	0	as extreme
G. Socialize least	000000000000	0	on a
H. Feel worst	000000000000	0	regular
I. Eat least	000000000000	0	basis
J. Sleep most	000000000000	0	

2. To what degree do the following change with the seasons?

(One circle for each question.)

	(		1 /			
	0	1	2	3	4	
A. Sleep length	No change O	Slight change O	Moderate change O	Marked change O	Exremely marked change O	
B. Social activity	Ō	Õ	Ō	Õ	Õ	
C. Mood (overall fe	eling O	0	0	0	0	
of well-be	eing)					
D. Weight	0	0	0	0	0	
E. Appetite	0	0	0	0	0	
F. Energy Level	0	0	0	0	0	

3. If you experience changes with the seasons, do you feel that these are a problem for you? O Yes O No If yes, is this problem O O O O O O O

FIGURE 1. Questionnaire for evaluating your degree of seasonality. Modified from the Seasonal Pattern Assessment Questionaire (SPAQ) of N.E. Rosenthal, G. Bradt, and T. Wehr (public domain)





# Scoring of SPAQ

First establish your pattern of seasonality: Do you feel worst in the winter, summer, both winter and summer—or are you not particularly seasonal at all? You can determine this by your answers to question 1.

### 1. What is your seasonal pattern?

- A. Winter seasonal pattern—People with this pattern generally feel worst in December, January, February (see question 1)
- B. Summer pattern—People with this pattern feel worst in July or August
- C. Combined pattern—People with this pattern feel worst in the months mentioned in both A and B above

You can measure the extent of your seasonal changes by examining your answers to question 2. Here's how:

### 2. To what degree do the following change with seasons?

As you can see there are six behaviors measured (A to F) and each can be measured in severity ranging from "no change" to "extremely marked change" (0 to 4). By adding up the numbers on the six items you derive your Global Seasonality Score (GSS), which will be a number between 0 and 24.

Finally, you want to see how severe a problem these seasonal changes are for you, which is rated in question 3.

# 3. If you experience changes with the season do you feel that these are a problem for you? (Yes, No) And if yes is this problem mild, moderate, marked, severe, or disabling.

The following is the key that we and others have used in research studies to determine whether a person is likely to be suffering from SAD or the Winter Blues. Please note that this is by no means a hard and fast clinical diagnosis, which can only be accurately reached by a well-trained clinician. But it does give you a good rough-and-ready guide that may help your further planning.

# Assessing your own seasonal difficulties based on the SPAQ

If you endorsed feeling worse in the winter months you might be suffering from SAD or the Winter Blues depending on the severity of symptoms. Likewise, for summer SAD or the combined summer winter SAD. I will not be dealing with these last two in the further discussion of the SPAQ but will confine my comments to Winter SAD.





As you might expect, in order to fit criteria for either SAD or the less severe variant, the Winter Blues, it is usual to meet a certain cumulative score on the GSS (Question 2 of the SPAQ). For SAD, this cumulative score is usually eleven or more. For Winter Blues 8 to 10, and if you score less than 8, you probably don't suffer from either of these two conditions. That said I have seen all kinds of exceptions. For example, some people who score less than 8 may have quite a hard time in the winter. Perhaps, they are just particularly stoical sorts who underreport their symptoms. As I think of it, however, I cannot recall many people who have over reported their symptoms on the SPAQ. I think there is a general cultural tendency towards believing that almost everyone has a hard time during the dark winter days. People absorb this cultural expectation and are disinclined to complain for fear of being considered whiners.

The third question asks you to what extent you experience your seasonal changes as a problem. Obviously, if you say no problem at all, that suggests that you don't have SAD or the Winter Blues, though you might still notice changes in the winter. Many people, for example, need a little extra sleep, eat more—especially over the holidays—and gain a few pounds of weight without considering this a problem. Here we see the first clue of what is going to be a recurrent theme in our understanding and dealing with SAD or the Winter Blues—namely, that a person's lifestyle is an important factor in how they feel about their seasonal changes. For example, if your work is super demanding, then even small decreases in energy could be a problem. Likewise, if you're a runway model, small gains in weight could be disastrous. But for many people, winter and the holiday season are times when relaxation is permitted, which makes life much easier to handle.





## How have SAD and Winter Blues been determined on the basis of the SPAQ (The questionnaire shown in figure 1)?

Even though as I explained, diagnoses of SAD and the Winter Blues are best made by a qualified professional, in reality such qualified professional is often not available. Luckily, there is a great deal of research that has helped us develop criteria for determining who is likely to suffer from SAD or the Winter Blues on the basis the SPAQ. These are the criteria that have emerged from research studies.

# Determining SAD

If you feel worst between December and February, have a Global Seasonal Score of 11 or more, and say that your seasonal changes are at least a moderate problem for you, chances are that you probably have experienced SAD during the winter.

## The Winter Blues

If you feel worst between December and February and have a GSS score between 8 to 10, chances are you experience the Winter Blues.

Incidentally, if you qualify for either SAD or the Winter Blues, don't despair, there are many things that you can do to help yourself or get help from others so that you can feel well all year round. I deal with these remedies below. But before getting into treatments, let's look a little deeper into the question, "Do you have SAD, the Winter Blues, or both?"

# Do you have SAD, the Winter Blues, or both?

When we initially described SAD, the idea behind it was that it would be a condition that at least during some winters was bad enough to warrant seeking medical attention. After we described SAD, it soon became apparent that many people with winter difficulties experienced a loss of productivity or creativity during the winter months—or simply a lower quality of life—without it getting severe enough to warrant medical attention. We called that subsyndromal SAD, but it is more commonly known as the Winter Blues.

We later discovered that winter difficulties, and seasonal changes in general, can vary greatly within the same individual. For example, some years you might be living in a darker climate or working at a more stressful job and you may experience full-fledged SAD. In other years, however, you may be living in a brighter climate or have a less stressful job—and may only have the Winter Blues. Finally, you may decide to retire to a sunny climate and enjoy your days on the beach or the golf course—and have no winter symptoms at all. So, as you see, some people can have SAD, the Winter Blues, both, or neither, depending on their circumstances.





## What causes SAD?

The last paragraph already gives us some clues as to what causes SAD. I think of the causes of SAD as the legs of a three-legged stool: one leg is the amount of light that you get during the winter; the second is the amount of stress to which you are exposed; and the third is your biological predisposition. The good thing about light exposure and stress is that you can do a great deal to modify them. As far as your biological predisposition is concerned, so far not so much. When we get to the section on treatment I will discuss some of the many things that you can do to make winter easier for you.

# How SAD and the Winter Blues vary from season to season

Once you understand what causes SAD—and what makes the symptoms of SAD better or worse—you will understand how these factors play out in your own life. Sometimes it is useful to look back at your history of SAD and Winter Blues over the years in order to understand these influences, which will be useful to you going forward. The figure below provides a template for you to use to examine the pattern of your SAD and Winter Blues over the last ten years. Now before you go on to filling out that figure I should mention that in my experience there are two kinds of people: some who like filling out figures and think it's useful and others who don't. If you fall into that second category, feel free to skip the figure. You can always come back to it later if you like.

Using the grid provided below, fill in the number corresponding to how you have felt in each month over the past 5 years. If you can't remember exactly how you felt, use your best guess. Use the following key to rate your mood (as compared to your average mood) over the course of the year.

- 0 = mood normal or better than normal
- 1 = mood slightly worse than normal
- 2 = mood moderately worse than normal
- 3 = mood much worse than normal
- 4 = mood very much worse than normal

Year	Jan	Feb	Mar	Apr	Jun	Jul	Aug	Sep	Oct	Nov	Dec

FIGURE 2. Assessing your own seasonal difficulties based on the SPAQ



As most people look back over the pattern of SAD and Winter Blues, the two major variable influences on seasonal mood and behavior (light and stress) emerge. Let us consider each of these influences in turn:

## A. Light Exposure

### 1. Location, location!

If you have lived in different locations, you might find that the further your home was from the equator, the worse your winter symptoms were. That is logical, considering that when you are further from the equator, the winter days are not only shorter but the winter itself is longer. In the United States, for example, a person may have suffered severe SAD when she lived in Buffalo in the far north of the country, the Winter Blues when she lived in Washington, DC, several hundred miles further south, and no winter symptoms at all in Miami, Florida. Likewise, in the United Kingdom comparable cities might be Aberdeen, London, and Brighton—though in reality the distances from north to south in the United Kingdom are not as great and another factor can sometimes overwhelm the influence of latitude—namely cloud cover, which I discuss below.

Before leaving the issue of latitude, I should mention that its influences apply in the southern hemisphere as well. Although, to many people in the north, the southern hemisphere may seem like continents of sun filled lands, that does not convey an accurate picture of so complex and varied a landmass. Take South Africa, for example: Cape Town in the south is a thousand miles further from the equator than Johannesburg, the largest city in the country. Although, the summer days are longer in Cape Town, the winter days are corresponding shorter. For that reason, as well as its cloudy





winter weather, the citizens of Cape Town are at greater risk for SAD than South Africans living in Johannesburg.

I have alluded several times now to the issue of cloud cover—an important influence on mood in people at risk for SAD. It is useful to bear this in mind in understanding your SAD symptoms. For example, you may ask yourself, "Why am I feeling down, considering that winter is over and spring is here?" If you look up at the sky, that may provide the answer. What emerges here is that day length is not the only light-related influence on mood. The overall amount of unobstructed sunshine per day is also an important factor. This fact is worth bearing in mind for people with SAD who are considering moving to a new location. Take into account not only latitude but also the hours of unobstructed sunshine per day. Fortunately, figures are available for these measurements and can be obtained via the Internet. Here are a few extra tips that follow from the cloudiness—mood connection.

a. Spring is a tricky season when it comes to understanding and managing SAD symptoms because weather can be especially variable at that time of year. So be vigilant not only about the date on the calendar but also on how much sunlight is actually available.

b. Even within a city or region light exposure may vary from one location to another. This occurs particularly in hilly or mountainous terrain, such as San Francisco or Hawaii, where luxurious sunlight might stream down on one side of a hill while the opposite side is plunged into cloudy gloom. As you can imagine, Hawaiian holiday resorts are strategically placed on the sunny side of hills. Likewise, in San Francisco real estate values vary according to how much sunshine people get in different neighborhoods. If you plan to move to a hilly area, make sure your new home is on the sunny side of the hill.

#### 2. Indoor Lighting

Remember many of us spend most of our daylight hours indoors—so when we think about light exposure, we need to concern ourselves not just with climate and latitude but also with how much light we get indoors. Two people may be in the same city but one may live in a penthouse apartment bathed in light, streaming through large picture windows, while the other resides in a basement apartment with little natural light trickling through one or two window wells. Therefore, in thinking of what you can do to improve the amount of light you receive during the winter, it will be important to be mindful of both the natural light in your area and the artificial light in your specific home.





### B. Stress

As you think back to different winters, you might realize that some were worse than others even though there were no changes in your environmental light. What may emerge as the key difference is the amount of stress you experienced during these different years. Stress can come in many different forms. Here are a few common examples.

a. Having to get up early in the morning

This can be extremely difficult for human hibernators who want to do nothing more than curl up for another hour or two after the alarm clock goes off. As you can imagine, this is a real problem for parents who need to get their kids off to school and those whose workday begins early—especially if they have a long commute.

b. People under deadline pressure

I have learned through hard experience not to offer to deliver a manuscript for a book at the beginning of March, which will put me under deadline pressures through the winter. In the past, I have often made these commitments during the summer months when I feel on top of the world, only to be left having to grind out the manuscript when my brain is moving in slow motion and the words just don't seem to come easily. Nowadays I promise to deliver manuscripts at the end of the summer and if I finish early, I regard that as a bonus.

c. Stresses around the holidays

For some people the expected projects (cards, gifts, household decorations) and socializing that typically attend the holidays are predictable stresses that can be anticipated and avoided.

Although these are some of the general stresses that may occur, watch out for specific stresses that are particular to each individual. Notice the common elements in the three categories in stress mentioned above. They all involve demands on a person when she or he is in the winter doldrums, a time when it is very difficult to meet even the ordinary demands of everyday life let alone additional stress.

## When should you see a doctor?

How many times have you asked yourself, "Should I go and see a doctor?" Let's say, for example, that you have a cold. Your nose is running, you're sneezing, your head feels stuffy, and you don't feel yourself. At that point, most people would say, I have a cold but don't need to see the doctor. I'll treat myself with some over-the-counter remedies and if it doesn't get better, I'll go get professional help. For some people, however, for example, those with asthma or chronic sinusitis, even a simple cold may trigger a visit to the doctor because those people know from bitter experience that colds are not minor ailments for them, and that if they don't see a doctor quickly, complications may arise.

I give you this example simply to illustrate how we are—and should be—frequently making decisions as to when any condition crosses that threshold where it is no longer a good idea to try to treat





yourself, but you should also consult a doctor. SAD and the Winter Blues are no exception in this regard. What follows are some guidelines to help you determine when it is necessary to see a doctor – and when self-help might suffice. But no guidelines are a substitute for good judgment and although there is much that you can do to help alleviate the Winter Blues or even SAD, these (especially the latter) can be serious conditions, and I urge you to take them seriously and treat them responsibly.

## The value and limits of self-help

If you catch your SAD symptoms early in the season or if they are mild, it may be possible to alleviate them to a great extent—sometimes even completely—with the measures outlined in this short guide. Conversely, if for some reason you delay in treating them or they become severe, it may make sense to seek out professional treatment right away. Here are some guidelines that may help you make this judgment.

## A. When to seek medical help without delay.

1. If you feel your life is not worth living or feel suicidal in any way.

Clearly this is not a time to start messing around with home remedies. Fortunately, suicide is not



common in people with SAD but it does occur and even the possibility of losing a life as a result of an illness that is so imminently treatable as SAD is a tragedy to be avoided at all costs. In one such tragic case, a woman with SAD returned to the UK from a winter vacation in a sunny resort and soon after returning fell into a state of despair that drove her to this extreme action. Although I don't know the exact circumstances of her story, it is easy to imagine how sad she must have felt being back in the dark weather and how she might have delayed in getting help for herself until she felt too down and despondent to do so.

So bottom line: If you have suicidal ideas, get help at once, and don't rely on doing it all yourself.

2. If your SAD symptoms have become so bad that they are jeopardizing an important aspect of your life, such as a relationship or a job—both of which can certainly suffer as a result of the typical symptoms of SAD—seek help without delay. It doesn't make sense to be trying to fix a complex problem all on one's own when the stakes are so high.

Exercise: Scroll up and read the symptoms of SAD listed above and think about how these different symptoms could impact your ability to function at work or be a good partner in a relationship. As you can see, many of the symptoms could make life very difficult on both of these fronts. When you are in the middle of SAD, it is easy to mix up cause and effect. In other words, it is to say I am unhappy because I have a bad job or bad relationship rather than realizing that the troubles at work and in your relationship are actually in large measure the result of your SAD symptoms.

3. If you need medications

The good news about SAD is twofold. First, there is so much that you can do on your own or with the help of friends and family to make life better during dark days. Second, if all of these helpful things are insufficient—as is sometimes the case—antidepressant medications can be very helpful. If antidepressants are required, however, you will need to consult a doctor. Luckily, self-help and medical help work very well together. An ideal solution is a solid collaboration between doctor and patient.

## What if the doctor doesn't know much about SAD?

This is a common question and unfortunately it often has its basis in reality. I'm not sure why this should be, but somehow patients have often led the way in diagnosing SAD and finding out about its treatments. Perhaps, because so many people feel "under the weather" during the winter months there is a tendency to think of people with SAD as whiners who just can't accept the realities of seasonal change and are making a mountain out of a molehill. What people without SAD (such as professionals, friends, and relatives) often don't realize is that for those people suffering from SAD winter is in fact a mountain and not a molehill. And they need help in getting over the mountain.

Another reason why professionals may miss cases of SAD is that diagnosing SAD takes time. You have to think back over the course of years (just as some of you may have done in completing figure 2). You may have to ask yourself, "How do I feel every year when the leaves begin to change colors in the autumn or every Christmas when I'm confronted with having to get gifts, cards, and





arrange for Christmas festivities?" The person with SAD knows the answer to these questions lousy! But to the busy doctor, these questions may seem like an idle use of time that would be better spent examining the patient physically and performing lab tests—neither of which is going to yield any information pertinent to the diagnosis of SAD.

#### An Important Medical Consideration:

Sometimes other conditions may masquerade as SAD, though with a classical history of recurrent winter difficulties this is uncommon. More commonly, however, other conditions may complicate SAD (i.e. you may have more than one condition). An underactive thyroid gland is a common culprit in this regard, and can be easily diagnosed by a blood test. Hypothyroidism (as this is called) is accompanied by feelings of sluggishness, a tendency to gain weight and feeling cold when others around you don't. So, here is another benefit of consulting a doctor: A condition other than SAD may be diagnosed, which, in the case of hypothyroidism is eminently treatable.

When it comes to SAD, however, often the patient is left with a task of educating the professional and an open-minded and enlightened professional is willing to receive such information with humility and appreciation. One book you might recommend to your physician is Winter Blues (Guilford 2013), which is a much more comprehensive and thoroughly documented guide and treatment of SAD than what is provided here. If you are interested in finding out more about SAD and its treatment than is provided here, you may find Winter Blues to be useful as well.

**Important tip:** It's not EITHER self-help OR professional help. If SAD symptoms are severe, the best results are usually obtained by a good collaboration between patient and professional.

# Tips for preventing and treating SAD and the Winter Blues

#### 1. Prevention is better than a cure

By looking back over your pattern of winter difficulties you can often get a good idea as to when symptoms are going to begin. Bearing that in mind, you are often best off initiating some of the tips and strategies listed below sooner rather than later. If you can prevent symptoms from gaining a foothold, you will generally have a much better winter.





### 2. Treat symptoms earlier rather than later

This tip follows directly from the previous one. Often symptoms respond better when they are milder and less entrenched. In addition, by treating earlier you can prevent the vicious cycle that tends to occur in SAD. Here's an example of what I mean. When SAD symptoms begin they often include low energy, fatigue, and difficulty concentrating. These symptoms tend to result in a person falling behind at work and in household chores. Now the person has to deal with being further and further behind with less and less energy to help catch up on the backlog. That leads to low mood and depression. Catching symptoms early—or better still, preventing them—can prevent such a vicious cycle from starting or progressing.

## 3. Get more light

This can be achieved in several ways:

- a. Bring more light into your home
- b. Light therapy
- c. Take winter vacations to sunny places
- d. Relocate

Let me deal with each of these in turn but I should state the obvious up front. First, relocation is clearly a drastic solution and other measures should be taken before considering it. Second, trips to sunny places are wonderful but for most people offer only short reprieves from winter. Third,





getting outdoors can be very helpful, but also has its limitations, so bringing light indoors is the first thing to consider.

a. Bring more light into your home

There are many ways to bring more light indoors, including some you may not have thought of (and some I may not have thought of). Here are some examples.

i. Bring more lamps into rooms

ii. Paint rooms in light colors so that they reflect more light

iii. Create at least one room in your house that is a "bright room." This could be a south facing room if your in the northern hemisphere or a north facing room if your in the southern hemisphere. It may be the room with the most windows or with a skylight. Concentrating all of your efforts on one room may be more economical. You may enhance the sense of brightness by adding orange, yellow, or saffron-colored pillows or throws.

iv. Make sure that as much light as possible gets through the windows. Minimize window treatments and clean the windows to prevent the obscuring effects of accumulated grime.

v. Consider adding skylights

#### b. Light Therapy

Although all of the above-mentioned measures for bringing light into the home are helpful, in reality they're often insufficient because they simply don't bring enough light to the eyes of a person suffering from SAD.

Important Fact: Evidence shows that the antidepressant effects of light in people with SAD are mediated by the eyes, not the skin.

From our earliest description of SAD in 1984, which was also the first controlled study of light therapy, we realized that exposing people with SAD to bright environmental light relieves their symptoms. Light acts on them like an antidepressant. Since our initial controlled study many other controlled studies have confirmed our earlier results.

### A Strange Controversy:

Even though SAD experts agree that light therapy is an effective antidepressant treatment for the symptoms of SAD and the winter blues, some medical professionals remain skeptical about this. It is difficult to understand this on the basis of the existing data.

There have been many studies of light therapy in countries on both sides of the Atlantic, showing positive effects of light therapy. These have been pooled together in standard ways, called meta-analyses, which have shown clearly that light therapy works. The most widely quoted of these





meta-analyses was published in the prestigious American Journal of Psychiatry.

For some reason, however, committees in certain countries, notably the United Kingdom and Sweden, have concluded that there is insufficient evidence to endorse the use of light therapy for SAD— at least as administered in its usual fashion by means of light fixtures. For this reason, although light therapy is permitted in these countries, it is not reimbursed by the National Health Care systems.

#### What kind of light fixture is best?

Since you have many different kinds of light fixtures to choose from, these are the properties of the light fixtures that have been used in most successful research studies.

- i. They contain fluorescent lights behind a plastic diffusing screen, which filters out ultra-violet rays that are potentially harmful to both eyes and skin.
- ii. Their surface area is usually at least one foot square
- iii. They put out light of sufficient intensity.

Although our initial 1984 study and some subsequent studies used light sources that delivered 2,500 lux to the eyes (as you might guess, lux is a unit of measurement of light intensity), more recent studies have used light of higher intensity—usually 10,000 lux. Most current light boxes are calibrated to deliver light to the eyes at an intensity between 2,500 and 10,000 lux. Remember, however, that the intensity of the light will vary according to how far your eyes are from the light box. One reason why I like light boxes to have a certain minimum surface area is because a very small light box may deliver its promised level of light only if your eyes are precisely at a certain point. But in reality a person moves his or her head around and with these movements light levels reaching the eye are likely to vary widely, often with loss of effectiveness.

More recently we have seen the development of light fixtures that consist of LEDs, either white or blue. Although some manufacturers claim that these fixtures are effective for SAD, in reality as of this time few studies have been done to support these claims. In addition, when it comes to the very important question of safety the larger fluorescent-based light fixtures have been used safely for decades. No such long track record exists for the smaller LED-based light fixtures.





In fact, some experts have raised concerns about potentially harmful effects of the light coming from such LEDs on the human retina.

Fortunately, several reputable companies make excellent light fixtures that are obtainable at a reasonable cost both in the US and in Europe. Obviously, "reasonable" is a relative term but when one considers a one-time cost of a few hundred dollars or pounds and the amount of suffering and lost productivity that a light fixture can spare, the word "reasonable" does seem to be justified.

# When is the best time to use the light box and for how long? What about dawn simulation?

Studies have shown that for most people light therapy is most powerful when used first thing in the morning. For some reason, the eyes seem to be most sensitive at that time of the day. In fact, researchers have taken advantage of the extreme sensitivity of the eyes in the early morning to develop yet a second form of light therapy called dawn simulation.

Dawn simulators are devices that turn on a light source early in the morning while a person is still asleep. Even though the amounts of light involved in dawn simulation are far less than those involved in light therapy, and even though dawn simulation occurs when a person's eyes are closed (and we know light therapy works through the eyes), dawn simulation can be a valuable addition to the overall treatment program. It is not, however, usually sufficient all by itself—and of the two treatments (light therapy vs. dawn simulation), therapy with light fixtures is usually more potent. But as you will see throughout this section, the best results are often obtained by adding all the different approaches together rather than by any one approach alone. This applies here too, and many people (myself included) combine dawn simulation with conventional light therapy for the best results.

Even though light therapy is most effective when used in the early morning it can be helpful when used at other times of day as well. For example, often people with SAD experience a major slump in the late afternoon and light therapy at that time can be very helpful in getting them over the hump.

## How should a light fixture be used?

The usual way to use a light fixture is to set it on a tabletop or desk at eye level a few feet away. Since the effects of light come in through the eyes, it is important that the eyes be open while receiving light therapy. It is not, however, necessary to stare at the light fixture and I would not recommend that anybody do so for more than brief intervals. Although the light box does not have to be directly in front of a person receiving light therapy, it is not going to help if it is too far round to the side of your head because too little light will reach your eyes. So directly in front or slightly off to the side are best for effective light therapy to occur.

### What are the side effects of light therapy?

All active treatments have potential side effects and light therapy is no exception in this regard,





though fortunately these side effects are uncommon when light therapy is used correctly. Here are some of the more common side effects you may encounter with light therapy:

- 1. Headache
- 2. Eye strain
- 3. Dryness of eyes and nasal passages
- 4. Insomnia—especially if the light is used at night
- 5. Unpleasant activation and irritability

Usually these side effects can be well controlled by decreasing the duration of light therapy or moving the light fixture somewhat farther away from the eyes. Sometimes dryness-induced irritation of the eyes and nasal passages may trigger the headaches. These can be alleviated by using a humidifier while receiving light therapy. Some people compare the feelings of over activation and irritability that they experience after sitting too long in front of their lights to how they feel when they drink too much coffee. It's good to be attuned to those feelings because they are best handled by backing off the amount of light therapy you are receiving.

Insomnia is most likely to occur if you receive light therapy in the evening, especially late at night. If you develop insomnia, you can often improve matters by moving your light therapy to earlier in the day.

If you experience side effects that are worse than these mild ones mentioned here you should discontinue your light therapy and consult a physician without delay.

## Warning: Be careful not to get too much light

The trouble with this warning is that nobody can say how much light is too much for any given person. As you will see below, some people (for example, those with strong bipolar tendencies) can tolerate only 5 minutes of light therapy, whereas others can happily manage 45 minutes or more. Formal light studies have not generally used more than 45 minutes per treatment session.





The amount of time a person can happily tolerate may vary with the season. I would simply urge you to listen to your body and back off on light therapy if any of the described side-effects listed here (or even others not listed) become troublesome. Avoid staring at the lights. Although light therapy works via the eyes, staring into the lights, which is not necessary for its therapeutic effects and can cause more side-effects.

### Who should not get light therapy before checking it out with a doctor?

For most people, light therapy is an extremely safe form of treatment but two types of people should get a physician's clearance before using light therapy:

- 1. People with certain eye problems
- 2. People with a history of bipolar one disorder (depressions and mania)

Certain eye conditions, notably macular degeneration and retinitis pigmentosa, can be aggravated by exposure to bright light. Therefore if you know you have one of these conditions, you should certainly check with your eye doctor before even considering light therapy. Now people with these conditions do not always know that they have them. So, if you are having trouble with your vision and haven't had your eyes checked out, you should do so before initiating light therapy.

People with bipolar disorder can be very sensitive to light therapy and even small amounts of light therapy, such as five minutes, may trigger symptoms of mania or hypomania (which is a less sever form of mania). For those of you unfamiliar with the symptoms of mania, they include, racing thoughts, pressured speech, insomnia, irritability, and euphoria. Should you experience these symptoms back off on your light therapy and consult your doctor.

Despite these potential side-effects, I am glad to report that light therapy has proved to be a safe treatment if used wisely. At the National Institute of Mental Health, we followed a large group of people with SAD over almost a decade and found no eye problems at all. I myself have been using light therapy now for over 30 years and show no evidence of any eye problems. Like all treatments, use light therapy wisely, and the chances are it will serve you well as it has me over all these years.

### Money back guarantees on light boxes

In the United States, companies that sell light fixtures universally have a thirty-day money back refund policy. A similar policy exists for major light fixture companies in the U.S. This excellent business practice allows people who are not sure whether light therapy is right for them to have a free trial of the treatment. When light therapy works, it usually does so within a week—sometimes even within a few days—so this trial period is more than enough to determine whether light therapy might work for you, and is something to bear in mind.

4. Reduce stress and change your lifestyle

Just to remind you, the three principle causes of SAD and the Winter Blues are insufficient light, stress, and biological predisposition. We've discussed some ways to bring more light into your





daily life. Let's now move on to ways to change your lifestyle and reduce stress.

#### a. Get your full quota of sleep

This is good advice for all of us who live in our fast-paced world, where the internet enables you to shop or play games or chat with friends at all times of the day or night. It is a big mistake, however, to think that you can cheat the sandman, cut an hour (or even half an hour) off your nightly sleep requirements and pay no price for that. The freshness of mind and clarity of thinking that you need in order to function at your best at any time—not to mention the dark days of winter when those of us with SAD are not at our best—depends on getting sufficient sleep. As you may recall, one of the symptoms of SAD is the need for more sleep than you need in summer or than the average person needs at any time of the year. Light therapy and other treatments may reduce this need for sleep, but the chances are that even with good treatment, you will still need your eight hours of sleep per night or even more, depending on the individual. I know that for some people this requirement may be difficult or even impossible to meet and it makes no sense to stress someone unduly by asking them to do the impossible. But if we're honest with ourselves, we will have to acknowledge that we often mess around late at night doing unnecessary things rather than accepting that the day is over and we had best pack it in.

#### b. Shift your rhythms earlier

Because the eyes are most sensitive to light in the early morning hours, most people with SAD are better off following the old adage "early to bed and early to rise." In general, the same eight hours of sleep will serve you better if they occur between 11:00 P.M. and 7:00 A.M. then between 1:00 A.M. and 9:00 A.M. Being exposed to more light in the morning —whether informally, via light therapy, or dawn simulation (see above)—will tend to shift your rhythms in a favorable earlier direction. Likewise, reducing your light levels in the later evening hours will have a similar beneficial effect. Remember, computer screens and tablets can be very bright light sources and since people often use these late at night, can interfere with this desired effect on sleep. Computer programs are available that dim computer screens automatically after certain hours of night, and yellow filters have been recommended as they screen out blue light, which is thought to be the most active part of the spectrum with regard to shifting the timing of daily rhythms. But these devices are probably unnecessary if you simply keep in mind the general principles at work and the overall goal. In other words, dim light in the late evening, bright light in the early morning, and overall earlier sleep for an adequate duration will all be likely to serve you well.

#### c. Exercise

I realize that in listing exercise I run the risk of sounding obvious, but can you imagine a list of self-help tips that excludes exercise? And remember, any exercise is good, especially when conducted in the morning and in bright light. Take your dog for a brisk walk or climb on your exercise bike, treadmill, or elliptical in front of a light box perched at eye level. Studies have shown that combining light and exercise has an additive beneficial effect. The most common response I get to this suggestion is, "If I had enough motivation to exercise, I wouldn't need your advice." To this I say, "If you're having trouble doing it yourself, get help." If you don't





have a dog complaining that he needs a walk and bringing you his leash, find a companion. Very likely, someone else in the neighborhood could use a boost in motivation as much as you can. So try and locate such a person and motivate each other. Hire someone if necessary to show up at a special hour of the day—and it doesn't have to be some fancy trainer with a string of letters behind his or her name. Remember, all you need is the motivation to get going and do your walk, not some high-tech advice. In other words, be creative in finding solutions to problems where basic instincts fail you.

#### d. Get help

Just as you many need help with exercising, you may need help with...lots of other things too. Don't be ashamed to ask for help. You can reciprocate when you are feeling better. I recognize that when it comes to paying for help, money may often be a problem—and I am certainly not encouraging you to go into debt thereby increasing your stress level. However, sometimes when SAD strikes it can jeopardize a person's job performance or the job itself just to mention a few potential consequences—and a careful cost-benefit analysis will reveal that relatively small amounts of money shelled out strategically might actually be a very good investment. A simple example: Paying someone to help pay credit card and other bills in time can avoid surcharges. I'm sure you can think of many other situations where paying for help can actually save money.





e. Diet

Unfortunately, common symptoms of SAD and the Winter Blues are increased appetite, cravings for sweets or starches, and, as a consequence weight gain. Sadly the weight gain tends to stick around through the summer so that you begin the new winter season at a higher baseline. Of course, there is no shortage of diet books. You probably have several on your shelf right now. But who has time to read them? So, let me offer you a simple program.

i. Measure your weight every morning at the same time and wearing the same clothes and write it down in a log so that you can easily see how much you weighed yesterday, last week, last month, etc. This log gives you a valuable index of what you're doing day to day that makes matters either better or worse and provides real-time feedback on how you can modify your diet.

ii. Avoid pure sugar. Just cut it out—unless you run several miles each day or do some other heroic form of exercise or have an amazing metabolism. Most of us who have SAD or the Winter Blues do not fall into this category. Our lives are basically sedentary and there is just too much carbohydrate rich contraband around.

iii. Next goes the white starch—pasta, potatoes, white rice, and white bread in all its forms. As I write this down, I realize it is an ideal and one that will be too difficult (and perhaps unnecessary) for most people to adhere to. But at least try to strike a compromise between this ideal and how you are currently eating. For example, try to limit yourself to eating these foods only two or three times a week or at one meal a day. Every little bit of restraint helps.

iv. Eat salads and green vegetables. Not only are these good for you, but they fill you up and make you less hungry for the bad stuff—or, you might say, the good stuff. You take your pick.

v. Favor proteins. Lean protein such as eggs for breakfast (or egg whites if you want to be extra good), fish and chicken are all excellent sources of lean protein, which tend to reduce one's appetite for carbohydrate rich foods.

vi. But you will find that you really do need carbohydrates in your diet, both nutritionally and to help you feel satisfied. Complex carbohydrates are great for this purpose. These include unprocessed oats (as opposed to oatmeal, which is more highly processed), almonds and other nuts, chickpeas and other legumes, and whole-wheat tortillas.

#### f. Reduce stress wherever possible

This tip is especially helpful when planning in advance. Let's say, for example, you have a deliverable —such as a project or writing deadline. Do you think it would be wiser to commit yourself to a March 1 or a September 1 deadline? The answer may seem obvious when the question is posed to you like this but often in the middle of summer it is hard for us to imagine how things will feel in winter. Our brains are working well, words and ideas are flowing, so March 1 seems perfectly feasible. Now imagine yourself at the beginning of





January. You have only two months to go to meet your deadline, but words and ideas are not flowing, Instead you may be sitting doodling away on a blank pad waiting for inspiration though following all the tips in this brief guide will make that far less likely to happen. Why put yourself under predictable pressure if you can prevent it? It is much better to imagine you imagine how you will actually feel in winter ahead of time and choose the September 1 date if at all possible. Likewise, you may decide not to invite house-guests over the holiday season, but rather to keep holiday entertaining to a modest level. I am by no means suggesting that you be reclusive or inhospitable, just realistic. Summer may be a better time to entertain.

#### g. Vacations in the sun

Sometimes just having a few sunny vacations on the books provides you with additional encouragement as you contemplate the winter. A reprieve in a sunny place can be a valuable break. Be very careful, however, on reentering the dark climate. You may feel great as you step off the plane and forget to restart your winter regiment right away, thereby inviting a relapse of your SAD symptoms. Instead, get right back on track with your light therapy and stress management.

There are, of course, many more things you can do to make life easier for yourself in the winter. Just knowing about SAD and the Winter Blues—what causes their symptoms and what alleviates them—can guide you to many potential solutions. I invite you to use your imagination to come up with some novel solutions of your own.

#### h. Support groups

Although there have been several attempts to develop and maintain support groups for people with SAD, SADA, the SAD Association of the UK is the only one that has maintained a steady presence for the past 25 years. It is a fine organization consisting of volunteers, who put out newsletters and other useful information, which have helped tens of thousands of people. They maintain a website at http://www.sada.org.uk





It would be valuable to have organizations in other countries as well but in practice, they have been difficult to establish and maintain. One possible reason for this is that when you have a large group of people with SAD, most feel lousy and unmotivated at the same time.

#### i. A few words about medications

Although I am a great believer in doing as much as possible to feel better without using medications—and many people succeed in this regard—the reality is that in many instances medications are valuable and even necessary to treat the symptoms of SAD. Most of my patients with SAD receive medications as part of their treatment. That said, people with SAD who come to me for consultation and treatment are often on the more severe end of the spectrum. I do not wish to go into detail about medications in this brief guide, which emphasizes treatments you can apply on your own. When it comes to medications for SAD or any other emotional disorder, you do need to involve a physician.

It is worth knowing that several anti-depressants can be useful for SAD and if one doesn't work, another probably will. Also, medications work very well in conjunction with other treatments (such as those listed in this brief guide). These other treatments (such as light therapy) often enable people to use lower doses of medications, thereby resulting in fewer side effects. I discuss medications for SAD in some detail in my book, Winter Blues, Guilford 2013.

