

# Seasonal Affective Disorder

## Introduction

Seasonal Affective Disorder (SAD) is a type of depression that has a seasonal pattern. It is characterised by episodes of depression that recur at the same time each year.

SAD is sometimes known as 'winter depression' because the symptoms are more apparent during the winter.

As with other kinds of depression, two of the main symptoms of SAD are a low mood and a loss of interest in ordinary things. Other symptoms of SAD include:

- being less active
- putting on weight
- sleeping more

## SAD affects people mostly in the winter

As SAD most commonly happens in winter, the symptoms are worse in the winter months. SAD sometimes affects people in the summer, although this is rare.

The symptoms of SAD often start as the days begin to get shorter in the autumn. They are worst during December, January, and February. For most people with SAD, the symptoms start to improve by spring time, then disappear.

## How common is SAD?

In the UK, it is thought that SAD affects around 7% of people. It tends to affect mainly younger people, especially those in their twenties. Depression in general affects twice as many women as men. This figure is likely to be the same for SAD.

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## Outlook

Like any type of depression, SAD can be a difficult condition to live with. Symptoms can make you feel tired, stressed and unhappy. However, a number of treatments and medications are available, including:

- **light therapy:** treatment with bright light
- **talking therapies:** such as cognitive behavioural therapy (CBT)
- **antidepressants:** medication to treat depression

## The winter blues

When the sun is shining, many people feel happier and more energetic. Conversely, when it is dark and gloomy, many people feel more lethargic and less sociable. The amount of sunlight you get can affect your:

- mood
- appetite
- energy levels
- sex drive

If this sounds familiar, you may have a milder form of SAD called winter blues. For people with SAD, the symptoms of low mood and depression are much more severe.

## Symptoms of seasonal affective disorder

As seasonal affective disorder (SAD) is a type of depression, its symptoms tend to be similar to those of depression. However, unlike non-seasonal depression, the symptoms of SAD occur on a seasonal basis.

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## Recurrent episodes

People with SAD find that their symptoms return annually, at the same time each year. As winter depression is more common than summer depression, most peoples symptoms begin in the winter and improve in the spring.

At the beginning of the autumn, the symptoms of SAD are usually relatively mild. However, as the winter progresses and sunlight decreases, the symptoms tend to get worse. However, each person experiences SAD differently, and the symptoms vary from person to person.

Between 70-80% of people with SAD have recurrent episodes of unipolar depression, rather than bipolar depression. Unipolar depression means that you only have depressive symptoms. Bipolar depression involves depressed periods and manic (high) periods when you feel very happy and energetic.

## Symptoms of depression

As with any form of depression, some of the main symptoms will include low moods and a loss of pleasure or interest in activities.

Other symptoms of depression may include:

- being in an irritable mood
- feelings of despair
- feelings of guilt and worthlessness
- having low self-esteem
- being indecisive
- tearfulness
- feeling stressed or anxious
- a reduced sex drive

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## Winter depression

In addition to those symptoms listed above, other symptoms of winter SAD may include:

- being less active
- feeling tired and sleeping more (hypersomnia)
- not having as much energy
- not being able to concentrate
- putting on weight
- an increased appetite and eating more than usual (hyperphagia)
- craving carbohydrates (starchy foods, such as bread and pasta)

SAD can be a difficult condition to live with. Its symptoms can have a significant impact on your day-to-day life.

## Summer depression

If you have SAD in the summer, your symptoms are likely to be similar to the depression symptoms listed above.

## Causes of seasonal affective disorder

The cause of seasonal affective disorder (SAD) is not fully understood. It is thought to be linked to reduced exposure to sunlight during the shorter days of the year (the winter months).

## Hypothalamus

The amount of sunlight that you receive affects some of the chemicals and hormones in your brain. However, it is not clear exactly what the effect is. One theory is that light stimulates a part of the brain called the hypothalamus, which controls mood, appetite and sleep. These things can affect how you feel.

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In people with SAD, lack of sunlight and a problem with certain brain chemicals prevents the hypothalamus working properly. The lack of light is thought to have three effects:

- It affects the production of the hormone melatonin.
- It affects the production of the hormone serotonin.
- It disturbs your circadian rhythm (the psychological process that regulates your body's internal clock).

## **Melatonin**

Melatonin is a hormone (a chemical that is produced by the body) that affects the way we sleep. It is produced by the pineal gland (a small gland inside your brain). When it is dark, the pineal gland produces melatonin to make you feel sleepy.

When it is light, the light enters your eye and reaches the retina (the light-sensitive surface at the back of your eye). The retina converts the light into an electric impulse and sends a signal to the hypothalamus part of your brain. The hypothalamus sends a message to various glands in your body, including the pineal gland, which produces less melatonin.

People with SAD produce much higher-than-normal levels of melatonin in winter. This results in the symptoms of SAD, such as sleepiness and a lack of energy.

## **Serotonin**

Serotonin is a hormone that affects your mood, appetite and sleep. It is also a neurotransmitter, which means that it transmits messages between your nerve cells. Sunlight affects the production of serotonin, so reduced sunlight means that less serotonin is produced.

If you have SAD, you usually have lower-than-average serotonin levels during the winter months. This may mean that messages between nerve cells are not being transmitted effectively, which may cause the symptoms of SAD, such as a low mood.

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## Circadian rhythm

Your circadian rhythm is a psychological process that helps to regulate your body's internal clock, which lets you know when to sleep and when to wake up.

A reduced level of sunlight can sometimes disturb your circadian rhythm. Disruption to sleeping and waking patterns is often linked to feelings of depression.

## Other causes of SAD

Depression has many different causes and contributing factors, some of which may also contribute to SAD. Possibilities include:

- **genetic and family factors:** a family history of depression could mean that you inherit particular genes (units of genetic material) that make depression more likely
- **adverse childhood experiences,** such as physical or sexual abuse, or neglect
- **personality factors:** for example, if you are already quite anxious
- **psychological factors:** this relates to how the brain functions, for example, the way that you think about things and your emotions
- **social factors:** your relationships with other people, for example, whether you have close friends

## Diagnosing seasonal affective disorder

Visit your GP if you have the symptoms of seasonal affective disorder (SAD). Your GP may carry out a psychological assessment in order to check your mental health.

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During the assessment, you may be asked questions about:

- your mood
- your lifestyle
- your eating patterns
- your sleeping patterns
- any seasonal changes in your thoughts and behaviour
- anything in your personal history that may contribute to a depressive disorder (for example, child abuse)
- anything in your family history that may contribute to a depressive disorder (for example, a family history of depression)

Your GP may also carry out a brief physical examination to check for any other possible causes of your symptoms.

## Diagnosing depression

There are two major classification systems that are used to diagnose depression. Your GP may use one of these systems to help diagnose SAD. The classification systems consider:

- what symptoms you have
- the severity of your symptoms
- how long your symptoms last
- how your symptoms progress
- to what extent the symptoms prevent you from carrying out your normal activities

Depending on your symptoms, you may be diagnosed with a level of depression, such as mild, moderate or severe.

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## Seasonal depression

SAD is a difficult condition to diagnose because there are many other types of depression that have similar symptoms. Therefore, it may take several years before you and your GP realise that your symptoms are forming a regular pattern.

A diagnosis of SAD will depend on:

- whether you have had symptoms during the same seasons for two or more years in a row
- whether your periods of depression are followed by periods without depression
- whether there are any other obvious explanations or causes for your seasonal mood changes

## Treating seasonal affective disorder

The National Institute for Clinical Excellence (NICE) advises that the treatment of seasonal affective disorder (SAD) should be the same as the treatment for other types of depression.

Treatment for depression usually includes psychosocial treatments, and/or antidepressants.

Light therapy is another form of treatment that is sometimes used to treat SAD (see below). NICE has concluded that evidence of the benefits of light therapy is uncertain, although some research suggests that it may have a positive, short-term effect when used by people with SAD.

Depending on the nature and severity of your symptoms, your GP can recommend the most suitable treatment for you. You may need to use a combination of treatments to get the best results.

## Psychosocial treatments

Psychosocial treatments are those that have both psychological aspects (looking at how your brain functions) and social aspects (looking at how you interact with other people). Some possible psychosocial treatments are described below.

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## **Cognitive behavioural therapy**

Cognitive behavioural therapy (CBT) is a combination of therapies. It starts with the idea that your problems are often created by you. It is not the situation itself that is making you unhappy, but how you think about it and how you react to it.

By changing how you think about a certain situation, you will behave differently so that the situation no longer makes you unhappy.

CBT involves having a number of sessions with a specially trained therapist, usually over several weeks or months. Your CBT could be:

- an individual programme of self-help
- a program that is designed for you and your partner (if the relationship with your partner is affecting your depression)
- a group programme that you complete with other people who are in a similar situation

## **Computerised cognitive behavioural therapy**

Computerised cognitive behavioural therapy (CCBT) is a programme of CBT that is completed on a computer. It is an individual programme that is tailored to your needs and supported by a trained therapist. It will take place over several weeks or months.

## **Group physical activity programme**

Exercise is known to be beneficial for treating people with depression. You may be offered up to three sessions of exercise a week, for around three months.

## **Counselling or psychodynamic psychotherapy**

Other possible talking therapies include counselling, where you talk to a trained counsellor about your problems, and psychodynamic psychotherapy.

Under psychodynamic psychotherapy, you discuss how you feel about yourself and others, and you talk about your past. It aims to find out whether anything in your past is affecting how you feel today.

## **Antidepressants**

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Antidepressants are often used to treat other forms of depression, and they may also be used to treat SAD if your symptoms are severe. The preferred type of antidepressant is known as a selective serotonin reuptake inhibitor (SSRI). SSRIs increase the level of the hormone serotonin in your brain, which helps to lift your mood.

If you are prescribed antidepressants, be aware of the following:

- It can take between 4-6 weeks for the antidepressants to work fully.
- It is important to take the medication as prescribed, and continue with the treatment even if you start to feel better.
- Some antidepressants have side effects and may interact with other types of medication.

The most common side effect of antidepressants is an upset stomach. For a full list of possible side effects, see the information leaflet that comes with your medication.

There is limited evidence that antidepressants are effective in treating SAD. However, it is thought that they may be most effective if they are taken at the beginning of winter (before the symptoms of SAD appear) and continued until spring.

### **Light therapy**

Light therapy involves wearing a light visor (a kind of hat that gives out light), or sitting in front of, or beneath, a light box. Light boxes are special lamps that come in a variety of designs, including desk lamps and wall-mounted fixtures. They produce a very bright light. Light intensity is measured in lux. A higher lux indicates that the light is brighter.

Speak to your GP and check the manufacturers' instructions before using a SAD light device. Find out:

- which products are recommended.
- what lux you should be using
- how long you need to sit in front of the light

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Very bright light may not be suitable if:

- you have an eye problem, or your eyes are particularly sensitive to light
- you are taking certain types of medication, such as antidepressants
- you have epilepsy (a condition that causes fits)

### **How light therapy works**

Light therapy is thought to work by simulating the sunlight that is missing during the darker winter months. The additional light encourages your brain to reduce the production of melatonin (the hormone that makes you sleepy), while increasing the production of serotonin (the hormone that affects your mood).

Changing the amount of chemicals that are released into your body should help to treat the cause of SAD and stop your symptoms. However, this is based on the assumption that SAD is caused by a lack of light, and the effect that this has on hormones that are released in your brain.

### **Research into light therapy**

Evidence on the effectiveness of light therapy is mixed. It is difficult to compare the research that has been carried out because a variety of light sources have been used, and the trials (medical tests) were often brief.

However, a number of studies have concluded that light therapy is effective, particularly if used first thing in the morning. Light therapy is thought to be best for producing short-term results. This may mean that light therapy will help to relieve your symptoms, but that you will still be affected by SAD the following winter.

NICE states that if you wish to try light therapy, be aware that the evidence of its overall benefits is uncertain.

### **Side effects**

The most common side effect of light therapy is mild agitation. For example, you may start to feel nervous, worried or irritable.

Light therapy may also give you a headache, or make it difficult for you to sleep. Visit your GP if you have any side effects while using light therapy.

### **Self-help**

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There are a number of simple lifestyle changes you can make to improve your symptoms:

- Try to get as much natural sunlight as possible. Even a brief lunchtime walk can be beneficial.
- Make your work and home environments as light and bright as possible.
- Sit near windows when indoors.
- Get regular exercise, particularly outdoors and in daylight, if possible.
- Eat a healthy, well-balanced diet.
- Avoid stressful situations.
- Talk to your family and friends about your condition so that they understand why your behaviour changes in the winter months. If they understand your condition, they can help and support you more effectively.

## **Additional information**

### **Useful organisations**

#### **Mind**

15-19 Broadway, Stratford, London E15 4BQ

Tel : 0845 766 0163

<http://www.mind.org.uk/>

#### **SAD Association**

PO Box 989, Steyning, BN44 3HG

Tel :

<http://www.sada.org.uk/>

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