

Accelerated Cure Project for MS

April 2019



Shedding Light on the Dark Days of MS

According to the Canadian poet, Atticus, “Depression is being colorblind and constantly told how colorful the world is.” Depression is one of the most common symptoms of MS. [Studies](#) show approximately half of people with MS struggle with this condition.

Depression can affect how an individual thinks and feels, as well as their ability to participate in daily

activities. It can occur in any person with MS at any point in the course of the disease. When depression occurs, it requires the same careful assessment and treatment as any other symptom of MS. Left untreated, depression has the potential to reduce quality of life, make other MS symptoms, such as fatigue, pain, or cognitive changes, feel worse, and may be life threatening.



There are several different types of depression. [Major depression](#) is an overall state of sadness and loss of interest in activities, even ones that are usually enjoyable. The [Diagnostic and Statistical Manual of Mental Disorders](#) (DSM) is the reference used by physicians to diagnose mental disorders, like depression. According to the DSM, individuals with major depression experience at least five of the following symptoms in a two-week period: 1) Sadness or depressed mood; 2) Lack of pleasure or interest in activities; 3) Trouble sleeping, or sleeping all the time; 4) Fatigue or lack of energy; 5) Feelings of worthlessness or guilt; 6) Lack of concentration or focus; 7) Changes in appetite; 8) Agitation, or moving in slow motion; or, 9) Recurrent thoughts of death or suicide. It’s important to note that the symptoms of depression are complex and can vary widely from person to person. Several are also symptoms of MS, such as fatigue, insomnia and cognitive difficulties. These similarities make diagnosing depression

challenging in people with MS. A trained health professional who is familiar with both conditions is needed to make an accurate diagnosis of depression for an individual with MS.

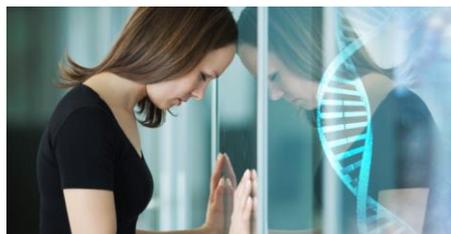
[Persistent depressive disorder](#) (also called dysthymia) shares many symptoms with major depression, however the symptoms are more insidious and tend to be less severe. These symptoms are typically present for at least two years, rather than two weeks. This form of depression tends to slowly become a part of everyday life and may eventually be perceived as a person's normal, unhappy mood. [Bipolar disorder](#) (sometimes referred to as manic-depressive disorder) is characterized by extreme mood swings. Individuals with this type of depression experience episodes of low spirits, but they also go through periods of unusually high energy or activity. Manic symptoms (for example, unrealistically high self-esteem or a decreased need for sleep) are typically short-lived and followed by a period of depression. In



some cases of bipolar disorder, the depressive phase can lead to self-destructive behavior. [Seasonal affective disorder](#) is a type of depression that is related to the change in seasons. It usually occurs in the fall and winter, when days are shorter.

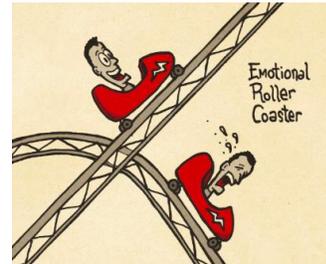
Two types of depression are influenced by reproductive hormones and may occur in women. [Perinatal depression](#) occurs during pregnancy or within one year after birth (also known as postpartum depression). This type of depression may include both major and minor depressive episodes. While it is most common in women, postpartum depression can also occur in men after the birth of a child. [Premenstrual dysphoric disorder](#) (PMDD) is a severe form of premenstrual syndrome. PMDD typically causes extreme, disruptive mood swings. These symptoms usually begin shortly after ovulation and end once menstruation starts.

While depression can potentially occur in any person with MS at any point in the course of the disease, a number of factors increase its likelihood. Chronic illness in and of itself is a known risk factor for depression. Depression is nearly twice as likely to occur in women than men. For some, difficult life situations or stresses may lead to discouragement or despair. People living with MS may experience such emotions following diagnosis, or during an exacerbation. Those with a susceptibility to depression prior to their MS diagnosis may be at an even higher risk afterward. Factors such as a lack of support, and drug dependence may also contribute to the onset of depression. As mentioned in our [March 2019 newsletter](#), researchers at Case Western Reserve University recently identified several risk factors for depression in MS, including obesity, hypertension, mononucleosis, and obstructive pulmonary disease. This groundbreaking research also identified genetic influences on the condition. For example, the major [alleles](#) for the [APOE gene](#) are called E2, E3 and E4. Data from this study show that the E4 genotype is a risk factor for depression and the E2 genotype appears to have an opposite, protective effect. The research team also concluded that a family history of depression (specifically when an individual's



mother is affected) is a causative factor. [Researchers](#) in Greece have confirmed this finding. Other illnesses can contribute to depression as well, such as hormone or thyroid problems, changes in blood sugar levels, and urinary tract or other infections. Therefore, it is of primary importance for those struggling with depression to have a physical examination and laboratory testing to rule out any underlying (and treatable) physical cause.

Many aspects of living with MS, and the disease itself, have the potential to cause depression. It may be the result of neurological damage to the central nervous system. One [imaging study](#) suggests that people living with MS and depression have more lesions in the left anterior temporal/parietal regions of the brain. [Researchers](#) at UCSF suggest the cytokines involved in the abnormal immune response that occurs in MS may, in fact, cause depressive symptoms. Subsequent [studies](#) have



confirmed these findings. Some of the medications used to treat MS may be linked to depression. Steroids are often prescribed during exacerbations, a time when people with MS are already vulnerable to depressive symptoms. Steroids often cause a short term “high” when first given followed by an emotional plunge once the medication is stopped. Depression is a suspected side effect of interferon beta treatments for MS (Avonex, Betaseron and Rebif), although the evidence to support this is mixed. Two MS clinical trials (the [SPECTRIMS trial](#) and the [PRISMS trial](#)) show no association between depression and interferon beta-1a treatment. Other [studies](#) suggest interferons decrease the amount of serotonin formed in the brain, which may, in turn, be linked to depression. Medications used to manage MS symptoms may also cause depression. For example, despondency is a side effect of baclofen (for spasticity), benzodiazepines (for dizziness, vertigo or spasticity), and other sedating drugs.

A number of instruments are used in the clinical and research settings to evaluate depression. One of the most commonly used tools is the [Beck Depression Inventory](#) (BDI), which is a questionnaire containing 21 multiple-choice questions aimed at assessing the mood, symptoms and behaviors of people who are depressed. Each answer is assigned a score, from one to three (based on severity). These numbers are added together to determine a total score, which is used to evaluate an individual’s level of depression. Dr. Max Hamilton, a psychiatrist at Leeds University, developed the [Hamilton Depression Rating Scale](#) (HAM-D) in the late 1950’s. This questionnaire is used to determine the severity of depression in people who have already been diagnosed with the condition. The HAM-D consists of 21 multiple-choice questions, each relating to a particular sign or symptom of depression. Scoring is based on the first 17 items. The remaining four questions measure factors that are related to depression, but are not thought to be measures of severity, such as paranoia or obsessive and compulsive symptoms. Individual answers are scored (zero through four), added together and higher total scores indicate more severe depression. The [Zung Scale](#) is another instrument, designed by Duke University psychiatrist Dr. William Zung, to assess the level of depression in individuals with existing depression. It contains 20 questions that are framed in terms of positive and negative statements. Scores for individual questions are added to obtain an overall score, ranging from 20 to 80, with scores above 50 indicating depression.

8 NEGATIVE EFFECTS OF DEPRESSION ON A RELATIONSHIP

- * EMOTIONAL TOLL
- * ROMANCE AND SEXUAL INTIMACY PROBLEMS
- * COMMUNICATION PROBLEMS
- * ISOLATION
- * LACK OF ENERGY/MOTIVATION
- * DEPENDENCE ON THE RELATIONSHIP
- * LACK OF UNDERSTANDING
- * UNCERTAINTY

The effects of depression can be devastating. Those struggling with it may find even simple activities, like getting out of bed in the morning, challenging. Bigger tasks (i.e. getting to a doctor's appointment) may feel impossible. An individual living with both MS and depression may not be inclined or able to follow his or her treatment plan, which could have detrimental effects in the long run. Depression may erode relationships. Many of its symptoms are invisible, which often leads to misunderstandings. Those struggling with depression frequently turn inward, withdraw from family and friends, and stop participating in social

activities. Support systems tend to crumble when they are needed the most. Loss of libido is a chief complaint among individuals experiencing depression, which may also damage relationships. Depression may impact a person's ability to work. A [2012 study](#) looking at its impact on work productivity in people with RRMS suggests depression negatively impacts both the ability to work, and one's productivity while there. For the depressed individual with MS, a loss of employment and insurance benefits can have a devastating impact.

Depression is one of the most treatable of all MS symptoms. One type of medication frequently used is a selective serotonin reuptake inhibitor (SSRI). These drugs inhibit the [reuptake](#) of serotonin (a chemical produced within the body which is known to elevate mood), allowing it to remain in the body's system longer. Some commonly prescribed SSRIs include [Celexa](#), [Lexapro](#), [Paxil](#), [Prozac](#) and [Zoloft](#). Another class of antidepressants is a serotonin and norepinephrine reuptake inhibitor (SNRI), such as [Cymbalta](#) and [Effexor](#), which work by increasing the amounts of serotonin and norepinephrine in the brain. These medications have similar side effects to SSRIs. Numerous other drugs are also FDA-approved for the treatment of depression, such as [Desyrel](#), [Remeron](#), [Serzone](#) and [Wellbutrin](#). There is wide variability in response to antidepressant drugs and it may be necessary to try different medications and doses before an effective medication, or combination of medications is found. In addition, many of the drugs used to treat depression can take up to six weeks before reaching maximum effectiveness. Many need to be continued for at least four to nine months to prevent depression from quickly returning. For those with severe depression, medication may need to be continued indefinitely. As mentioned in our [February 2019 newsletter](#), dietary supplements such as St. John's wort and ginkgo biloba are thought to help with symptoms of depression. [Recent research](#) suggests that fish oil supplementation can also be beneficial in this regard. It's important to note that anyone considering dietary supplements should first consult his or her physician as these can cause serious side effects and/or interactions with other medications.



[Studies](#) show the most successful treatment plan for depression is to seek counseling in conjunction with a prescribed drug therapy. The National MS Society's [MS Navigator program](#) provides people living with MS with the information, resources and support they need to combat depression and other challenges in

MS. A number of professionals are specifically trained to provide objective insight and coping skills to help manage the symptoms of depression, including a psychiatrist, psychologist, social worker, or a counselor. A variety of therapeutic approaches may be used during the counseling process, such as [talk therapy](#) and [behavioral therapy](#). Counseling sessions may be conducted individually, with couples, families, or larger groups. Some less traditional therapy options also include [phone therapy](#) and [online therapy](#). These options may be attractive to those who are home bound or otherwise unable to attend a counseling session. In rare instances, a number of procedures may be used to treat significant depression that does not respond to more traditional forms of therapy and medication. These include [transcranial magnetic stimulation](#), [vagus nerve stimulation](#) and [electroconvulsive therapy](#) (also known as electroshock treatment).

Overall wellness strategies can be very helpful in coping with depression. Such strategies include exercising daily, reducing stress, maintaining social networks, and abstaining from addictive substances like alcohol. Many people find that helping others, for example by volunteering, is a great way to lift their mood. In fact, [research](#) shows that giving support to others can sometimes be more beneficial than receiving help. Such a boost after doing a good deed, or an act of kindness is often referred to as a “[helper’s high](#).” To help with depression, some find it helpful to journal their feelings. Such an activity may not only help individuals feel better, but can be an effective way of documenting changes in mood, which can be very helpful information for healthcare providers. Some people find great comfort in sticking to a routine. These individuals may find doing whatever is possible to maintain a normal schedule when forced to make a change often helps them adjust. Other helpful strategies include adopting a pet, developing a spiritual interest (prayer, meditation, or some other spiritual practice) and, above all else, maintaining a sense of humor when possible.



Despite all of the devastating implications of depression, it is often ignored, and as a result, under-treated. While depression is common in people with MS, it is not universal and shouldn't be considered normal or expected. A common misconception is that depression can be overcome by willpower or religious belief alone, when, in fact, it is an illness that requires time, attention and treatment. Individuals with MS and their families should pay attention to symptoms of depression and notify their health care provider should any arise. There are effective therapies that can help dispel the gloom and return one to a happier, more peaceful life.

