WOMEN AND DEPRESSION

National Institute of Mental Health

DISCOVERING HOPE

Contents

What is depression?

Everyone occasionally feels blue or sad, but these feelings are usually fleeting and pass within a couple of days. When a woman has a depressive disorder, it interferes with daily life and normal functioning, and causes pain for both the woman with the disorder and those who care about her. Depression is a common but serious illness, and most who have it need treatment to get better.

Depression affects both men and women, but more women than men are likely to be diagnosed with depression in any given year.[1] Efforts to explain this difference are ongoing, as researchers explore certain factors (biological, social, etc.) that are unique to women.

Many women with a depressive illness never seek treatment. But the vast majority, even those with the most severe depression, can get better with treatment.

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What are the different forms of depression?

There are several forms of depressive disorders that occur in both women and men. The most common are major depressive disorder and dysthymic disorder. Minor depression is also common.

Major depressive disorder, also called major depression, is characterized by a combination of symptoms that interfere with a person's ability to work, sleep, study, eat, and enjoy once-pleasurable activities. Major depression is disabling and prevents a person from functioning normally. An episode of major depression may occur only once in a person's lifetime, but more often, it recurs throughout a person's life.

Dysthymic disorder, also called dysthymia, is characterized by depressive symptoms that are long-term (e.g., 2 years or longer) but less severe than those of major depression. Dysthymia may not disable a person, but it prevents one from functioning normally or feeling well. People with dysthymia may also experience one or more episodes of major depression during their lifetimes.

Minor depression may also occur. Symptoms of minor depression are similar to major depression and dysthymia, but they are less severe and/or are usually shorter term.

Some forms of depressive disorder have slightly different characteristics than those described above, or they may develop under unique circumstances. However, not all scientists agree on how to characterize and define these forms of depression. They include the following:

- **Psychotic depression** occurs when a severe depressive illness is accompanied by some form of psychosis, such as a break with reality; seeing, hearing, smelling or feeling things that others can't detect (hallucinations); and having strong beliefs that are false, such as believing you are the president (delusions).
- **Seasonal affective disorder** (SAD) is characterized by a depressive illness during the winter months, when there is less natural sunlight. The depression generally lifts during spring and summer. SAD may be effectively treated with light therapy, but nearly half of those with SAD do not respond to light therapy alone. Antidepressant medication and psychotherapy also can reduce SAD symptoms, either alone or in combination with light therapy.[2]

Bipolar disorder, also called manic-depressive illness, is not as common as major depression or dysthymia. Bipolar disorder is characterized by cycling mood changes—from extreme highs (e.g., mania) to extreme lows (e.g., depression). More information about bipolar disorder is available at http://www.nimh.nih.gov/health/topics/bipolar-disorder/index.shtml.

What are the basic signs and symptoms of depression?

Women with depressive illnesses do not all experience the same symptoms. In addition, the severity and frequency of symptoms, and how long they last, will vary depending on the individual and her particular illness. Signs and symptoms of depression include:

- *Persistent sad, anxious or "empty" feelings*
- *Feelings of hopelessness and/or pessimism*
- *Irritability, restlessness, anxiety*
- *Feelings of guilt, worthlessness and/or helplessness*
- *Loss of interest in activities or hobbies once pleasurable, including sex*
- *Fatigue and decreased energy*
- *Difficulty concentrating, remembering details and making decisions*
- *Insomnia, waking up during the night, or excessive sleeping*
- *Overeating, or appetite loss*
- *Thoughts of suicide, suicide attempts*
- *Persistent aches or pains, headaches, cramps or digestive problems that do not ease even with treatment*

What causes depression in women?

Scientists are examining many potential causes for and contributing factors to women's increased risk for depression. It is likely that genetic, biological, chemical, hormonal, environmental, psychological, and social factors all intersect to contribute to depression.

Genetics

If a woman has a family history of depression, she may be more at risk of developing the illness. However, this is not a hard and fast rule. Depression can occur in women without family histories of depression, and women from families with a history of depression may not develop depression themselves. Genetics research indicates that the risk for developing depression likely involves the combination of multiple genes with environmental or other factors.[3]

Chemicals and hormones

Brain chemistry appears to be a significant factor in depressive disorders. Modern brain-imaging technologies, such as magnetic resonance imaging (MRI), have shown that the brains of people suffering from depression look different than those of people without depression. The parts of the brain responsible for regulating mood, thinking, sleep, appetite and behavior don't appear to be functioning normally. In addition, important neurotransmitters—chemicals that brain cells use to communicate—appear to be out of balance. But these images do not reveal WHY the depression has occurred.

Scientists are also studying the influence of female hormones, which change throughout life. Researchers have shown that hormones directly affect the brain chemistry that controls emotions and mood. Specific times during a woman's life are of particular interest, including puberty; the times before menstrual periods; before, during, and just after pregnancy (postpartum); and just prior to and during menopause (perimenopause).

Premenstrual dysphoric disorder

Some women may be susceptible to a severe form of premenstrual syndrome called premenstrual dysphoric disorder (PMDD). Women affected by PMDD typically experience depression, anxiety, irritability and mood swings the week before menstruation, in such a way that interferes with their normal functioning. Women with debilitating PMDD do not necessarily have unusual hormone changes, but they do have different responses to these changes.[4] They may also have a history of other mood disorders and differences in brain chemistry that cause them to be more sensitive to menstruation-related hormone changes. Scientists are exploring how the cyclical rise and fall of estrogen and other hormones may affect the brain chemistry that is associated with depressive illness.[5,6,7]

Postpartum depression

Women are particularly vulnerable to depression after giving birth, when hormonal and physical changes and the new responsibility of caring for a newborn can be overwhelming. Many new mothers experience a brief episode of mild mood changes known as the "baby blues," but some will suffer from postpartum depression, a much more serious condition that requires active treatment and emotional support for the new mother. One study found that postpartum women are at an increased risk for several mental disorders, including depression, for several months after childbirth.[8]

Some studies suggest that women who experience postpartum depression often have had prior depressive episodes. Some experience it during their pregnancies, but it often goes undetected. Research suggests that visits to the doctor may be good opportunities for screening for depression both during pregnancy and in the postpartum period.[9,10]

Menopause

Hormonal changes increase during the transition between premenopause to menopause. While some women may transition into menopause without any problems with mood, others experience an increased risk for depression. This seems to occur even among women without a history of depression.[11,12] However, depression becomes less common for women during the post-menopause period.[13]

Stress

Stressful life events such as trauma, loss of a loved one, a difficult relationship or any stressful situation—whether welcome or unwelcome—often occur before a depressive episode. Additional work and home responsibilities, caring for children and aging parents, abuse, and poverty also may trigger a depressive episode. Evidence suggests that women respond differently than men to these events, making them more prone to depression. In fact, research indicates that women respond in such a way that prolongs their feelings of stress more so than men, increasing the risk for depression.[14] However, it is unclear why some women faced with enormous challenges develop depression, and some with similar challenges do not.

What illnesses often coexist with depression in women?

Depression often coexists with other illnesses that may precede the depression, follow it, cause it, be a consequence of it, or a combination of these. It is likely that the interplay between depression and other illnesses differs for every person and situation. Regardless, these other coexisting illnesses need to be diagnosed and treated.

Depression often coexists with eating disorders such as anorexia nervosa, bulimia nervosa and others, especially among women. Anxiety disorders, such as post-traumatic stress disorder (PTSD), obsessive-compulsive disorder, panic disorder, social phobia and generalized anxiety disorder, also sometimes accompany depression.[15,16] Women are more prone than men to having a coexisting anxiety disorder.[17] Women suffering from PTSD, which can result after a person endures a terrifying ordeal or event, are especially prone to having depression.

Although more common among men than women, alcohol and substance abuse or dependence may occur at the same time as depression.[17,15] Research has indicated that among both sexes, the coexistence of mood disorders and substance abuse is common among the U.S. population.[18]

Depression also often coexists with other serious medical illnesses such as heart disease, stroke, cancer, HIV/AIDS, diabetes, Parkinson's disease, thyroid problems and multiple sclerosis, and may even make symptoms of the illness worse.[19] Studies have shown that both women and men who have depression in addition to a serious medical illness tend to have more severe symptoms of both illnesses. They also have more difficulty adapting to their medical condition, and more medical costs than those who do not have coexisting depression. Research has shown that treating the depression along with the coexisting illness will help ease both conditions.[20]

How does depression affect adolescent girls?

Before adolescence, girls and boys experience depression at about the same frequency.[13] By adolescence, however, girls become more likely to experience depression than boys.

Research points to several possible reasons for this imbalance. The biological and hormonal changes that occur during puberty likely contribute to the sharp increase in rates of depression among adolescent girls. In addition, research has suggested that girls are more likely than boys to continue feeling bad after experiencing difficult situations or events, suggesting they are more prone to depression.[21] Another study found that girls tended to doubt themselves, doubt their problem-solving abilities and view their problems as unsolvable more so than boys. The girls with these views were more likely to have depressive symptoms as well. Girls also tended to need a higher degree of approval and success to feel secure than boys.[22]

Finally, girls may undergo more hardships, such as poverty, poor education, childhood sexual abuse, and other traumas than boys. One study found that more than 70 percent of depressed girls experienced a difficult or stressful life event prior to a depressive episode, as compared with only 14 percent of boys.[23]

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How does depression affect older women?

As with other age groups, more older women than older men experience depression, but rates decrease among women after menopause.[13] Evidence suggests that depression in post-menopausal women generally occurs in women with prior histories of depression. In any case, depression is NOT a normal part of aging.

The death of a spouse or loved one, moving from work into retirement, or dealing with a chronic illness can leave women and men alike feeling sad or distressed. After a period of adjustment, many older women can regain their emotional balance, but others do not and may develop depression. When older women do suffer from depression, it may be overlooked because older adults may be less willing to discuss feelings of sadness or grief, or they may have less obvious symptoms of depression. As a result, their doctors may be less likely to suspect or spot it.

For older adults who experience depression for the first time later in life, other factors, such as changes in the brain or body, may be at play. For example, older adults may suffer from restricted blood flow, a condition called ischemia. Over time, blood vessels become less flexible. They may harden and prevent blood from flowing normally to the body's organs, including the brain. If this occurs, an older adult with no family or personal history of depression may develop what some doctors call "vascular depression." Those with vascular depression also may be at risk for a coexisting cardiovascular illness, such as heart disease or a stroke.[24]

How is depression diagnosed and treated?

Depressive illnesses, even the most severe cases, are highly treatable disorders. As with many illnesses, the earlier that treatment can begin, the more effective it is and the greater the likelihood that a recurrence of the depression can be prevented.

The first step to getting appropriate treatment is to visit a doctor. Certain medications, and some medical conditions such as viruses or a thyroid disorder, can cause the same symptoms as depression. In addition, it is important to rule out depression that is associated with another mental illness called bipolar disorder. (For more information about

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bipolar disorder, visit the National Institute of Mental Health's (NIMH) Web site at http://www.nimh.nih.gov). A doctor can rule out these possibilities by conducting a physical examination, interview, and/or lab tests, depending on the medical condition. If a medical condition and bipolar disorder can be ruled out, the physician should conduct a psychological evaluation or refer the person to a mental health professional.

The doctor or mental health professional will conduct a complete diagnostic evaluation. He or she should get a complete history of symptoms, including when they started, how long they have lasted, their severity, whether they have occurred before, and if so, how they were treated. He or she should also ask if there is a family history of depression. In addition, he or she should ask if the person is using alcohol or drugs, and whether the person is thinking about death or suicide.

Once diagnosed, a person with depression can be treated with a number of methods. The most common treatment methods are medication and psychotherapy.

Medication

Antidepressants work to normalize naturally occurring brain chemicals called neurotransmitters, notably serotonin and norepinephrine. Other antidepressants work on the neurotransmitter dopamine. Scientists studying depression have found that these particular chemicals are involved in regulating mood, but they are unsure of the exact ways in which they work.

The newest and most popular types of antidepressant medications are called selective serotonin reuptake inhibitors (SSRIs) and include:

- fluoxetine (Prozac)
- citalopram(Celexa)
- sertraline (Zoloft)
- paroxetine (Paxil)
- escitalopram (Lexapro)
- fluvoxamine (Luvox)

Serotonin and norepinephrine reuptake inhibitors (SNRIs) are similar to SSRIs and include:

- venlafaxine (Effexor)
- duloxetine (Cymbalta)

SSRIs and SNRIs tend to have fewer side effects and are more popular than the older classes of antidepressants, such as tricyclics—named for their chemical structure—and monoamine oxidase inhibitors (MAOIs). However, medications affect everyone differently. There is no one-size-fits-all approach to medication. Therefore, for some people, tricyclics or MAOIs may be the best choice.

People taking MAOIs must adhere to significant food and medicinal restrictions to avoid potentially serious interactions. They must avoid certain foods that contain high levels of the chemical tyramine, which is found in many cheeses, wines and pickles, and some medications including decongestants. Most MAOIs interact with tyramine in such a way that may cause a sharp increase in blood pressure, which may lead to a stroke. A doctor should give a person taking an MAOI a complete list of prohibited foods, medicines and substances.

For all classes of antidepressants, people must take regular doses for at least 3 to 4 weeks, sometimes longer, before they are likely to experience a full effect. They should continue taking the medication for an amount of time specified by their doctor, even if they are feeling better, to prevent a relapse of the depression. The decision to stop taking medication should be made by the person and her doctor together, and should be done only under the doctor's supervision. Some medications need to be gradually stopped to give the body time to adjust. Although they are not habit-forming or addictive, abruptly ending an antidepressant can cause withdrawal symptoms or lead to a relapse. Some individuals, such as those with chronic or recurrent depression, may need to stay on the medication indefinitely.

In addition, if one medication does not work, people should be open to trying another. Research funded by NIMH has shown that those who did not get well after taking a first medication often fared better after they switched to a different medication or added another medication to their existing one.[25,26] For the latest information on medications used to treat depression, see the U.S. Food and Drug Administration Web site at http://www.fda.gov.

Sometimes other medications, such as stimulants or antianxiety medications, are used in conjunction with an antidepressant, especially if the person has a coexisting illness. However, neither antianxiety medications nor stimulants are effective against depression when taken alone, and both should be taken only under a doctor's close supervision.

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Is it safe to take antidepressant medication during pregnancy?

At one time, doctors assumed that pregnancy was accompanied by a natural feeling of well being, and that depression during pregnancy was rare, or never occurred at all. However, recent studies have shown that women can have depression while pregnant, especially if they have a prior history of the illness. In fact, a majority of women with a history of depression will likely relapse during pregnancy if they stop taking their antidepressant medication either prior to conception or early in the pregnancy, putting both mother and baby at risk.[27,12]

However, antidepressant medications do pass across the placental barrier, potentially exposing the developing fetus to the medication. Some research suggests the use of SSRIs during pregnancy is associated with miscarriage and/or birth defects, but other studies do not support this.[28] Some studies have indicated that fetuses exposed to SSRIs during the third trimester may be born with "withdrawal" symptoms such as breathing problems, jitteriness, irritability, difficulty feeding, or hypoglycemia. In 2004, the U.S. Food and Drug Administration (FDA) issued a warning against the use of SSRIs in the late third trimester, suggesting that clinicians gradually taper expectant mothers off SSRIs in the third trimester to avoid any ill effects on the baby.[29]

Although some studies suggest that exposure to SSRIs in pregnancy may have adverse effects on the infant, generally they are mild and short-lived, and no deaths have been reported. On the flip side, women who stop taking their antidepressant medication during pregnancy increase their risk for developing depression again and may put both themselves and their infant at risk.[28,12]

In light of these mixed results, women and their doctors need to consider the potential risks and benefits to both mother and fetus of taking an antidepressant during pregnancy, and make decisions based on individual needs and circumstances. In some cases, a woman and her doctor may decide to taper her antidepressant dose during the last month of pregnancy to minimize the newborn's withdrawal symptoms, and after delivery, return to a full dose during the vulnerable postpartum period.

Is it safe to take antidepressant medication while breastfeeding?

Antidepressants are excreted in breast milk, usually in very small amounts. The amount an infant receives is usually so small that it does not register in blood tests. Few problems are seen among infants nursing from mothers who are taking antidepressants. However, as with antidepressant use during pregnancy, both the risks and benefits to the mother and infant should be taken into account when deciding whether to take an antidepressant while breastfeeding.[30]

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What are the side effects of antidepressants?

Antidepressants may cause mild and often temporary side effects in some people, but usually they are not long-term. **However, any unusual reactions or side effects that interfere with normal functioning or are persistent or troublesome should be reported to a doctor immediately.**

The most common side effects associated with SSRIs and SNRIs include:

- Headache – usually temporary and will subside.
- Nausea – temporary and usually short-lived.
- Insomnia and nervousness (trouble falling asleep or waking often during the night) – may occur during the first few weeks but often subside over time or if the dose is reduced.
- Agitation (e.g., feeling jittery).
- Sexual problems – women can experience sexual problems including reduced sex drive and problems having and enjoying sex.

Tricyclic antidepressants also can cause side effects including:

- Dry mouth – it is helpful to drink plenty of water, chew gum, and clean teeth daily.
- Constipation – it is helpful to eat more bran cereals, prunes, fruits, and vegetables.
- Bladder problems – emptying the bladder may be difficult, and the urine stream may not be as strong as usual.
- Sexual problems – sexual functioning may change, and side effects are similar to those from SSRIs and SNRIs.
- Blurred vision – often passes soon and usually will not require a new corrective lenses prescription.
- Drowsiness during the day – usually passes soon, but driving or operating heavy machinery should be avoided while drowsiness occurs. These more sedating antidepressants are generally taken at bedtime to help sleep and minimize daytime drowsiness.