

Depression

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In any given 1-year period, 9.5 percent of the population, or about 20.9 million American adults, suffer from a depressive illness.⁵ The economic cost for this disorder is high, but the cost in human suffering cannot be estimated. Depressive illnesses often interfere with normal functioning and cause pain and suffering not only to those who have a disorder, but also to those who care about them. Serious depression can destroy family life as well as the life of the ill person. But much of this suffering is unnecessary.

Most people with a depressive illness do not seek treatment, although the great majority—even those whose depression is extremely severe—can be helped. Thanks to years of fruitful research, there are now medications and psychosocial therapies such as cognitive/behavioral, “talk,” or interpersonal that ease the pain of depression.

Unfortunately, many people do not recognize that depression is a treatable illness. If you feel that you or someone you care about is one of the many undiagnosed depressed people in this country, the information presented here may help you take the steps that may save your own or someone else’s life.

WHAT IS A DEPRESSIVE DISORDER?

A depressive disorder is an illness that involves the body, mood, and thoughts. It affects the way a person eats and sleeps, the way one feels about oneself, and the way one thinks about things. A depressive disorder is not the same as a passing blue mood. It is not a sign of personal weakness or a condition that can be willed or wished away. People with a depressive illness cannot merely “pull themselves together” and get better. Without treatment, symptoms can last for weeks, months, or years. Appropriate treatment, however, can help most people who suffer from depression.

TYPES OF DEPRESSION

Depressive disorders come in different forms, just as is the case with other illnesses such as heart disease. This pamphlet briefly describes three of the most common types of depressive disorders. However, within these types there are variations in the number of symptoms, their severity, and persistence.

Major depression is manifested by a combination of symptoms (see symptom list) that interfere with the ability to work, study, sleep, eat, and enjoy once pleasurable activities. Such a disabling episode of depression may occur only once but more commonly occurs several times in a lifetime.

A less severe type of depression, **dysthymia**, involves long-term, chronic symptoms that do not disable, but keep one from functioning well or from feeling good. Many people with dysthymia also experience major depressive episodes at some time in their lives.

Another type of depression is **bipolar disorder**, also called manic-depressive illness. Not nearly as prevalent as other forms of depressive disorders, bipolar disorder is characterized by cycling mood changes: severe highs (mania) and lows (depression). Sometimes the mood switches are dramatic and rapid, but most often they are gradual. When in the depressed cycle, an individual can have any or all of the symptoms of a depressive disorder. When in the manic cycle, the individual may be overactive, overtalkative, and have a great deal of energy. Mania often affects thinking, judgment, and social behavior in ways that cause serious problems and embarrassment. For example, the individual in a manic phase may feel elated, full of grand schemes that might range from unwise business decisions to romantic sprees. Mania, left untreated, may worsen to a psychotic state.

SYMPTOMS OF DEPRESSION AND MANIA

Not everyone who is depressed or manic experiences every symptom. Some people experience a few symptoms, some many. Severity of symptoms varies with individuals and also varies over time.

Depression

- Persistent sad, anxious, or “empty” mood
- Feelings of hopelessness, pessimism
- Feelings of guilt, worthlessness, helplessness
- Loss of interest or pleasure in hobbies and activities that were once enjoyed, including sex
- Decreased energy, fatigue, being “slowed down”
- Difficulty concentrating, remembering, making decisions
- Insomnia, early-morning awakening, or oversleeping
- Appetite and/or weight loss or overeating and weight gain
- Thoughts of death or suicide; suicide attempts
- Restlessness, irritability
- Persistent physical symptoms that do not respond to treatment, such as headaches, digestive disorders, and chronic pain

Mania

- Abnormal or excessive elation
- Unusual irritability
- Decreased need for sleep
- Grandiose notions
- Increased talking
- Racing thoughts
- Increased sexual desire
- Markedly increased energy
- Poor judgment
- Inappropriate social behavior

CAUSES OF DEPRESSION

Some types of depression run in families, suggesting that a biological vulnerability can be inherited. This seems to be the case with bipolar disorder. Studies of families in which members of each generation develop bipolar disorder found that those with the illness have a somewhat different genetic makeup than those who do not get ill. However, the reverse is not true: Not everybody with the genetic makeup that causes vulnerability to bipolar disorder will have the illness. Apparently additional factors, possibly stresses at home, work, or school, are involved in its onset.

In some families, major depression also seems to occur generation after generation. However, it can also occur in people who have no family history of depression. Whether inherited or not, major depressive disorder is often associated with changes in brain structures or brain function.

People who have low self-esteem, who consistently view themselves and the world with pessimism or who are readily overwhelmed by stress, are prone to

depression. Whether this represents a psychological predisposition or an early form of the illness is not clear.

In recent years, researchers have shown that physical changes in the body can be accompanied by mental changes as well. Medical illnesses such as stroke, a heart attack, cancer, Parkinson's disease, and hormonal disorders can cause depressive illness, making the sick person apathetic and unwilling to care for his or her physical needs, thus prolonging the recovery period. Also, a serious loss, difficult relationship, financial problem, or any stressful (unwelcome or even desired) change in life patterns can trigger a depressive episode. Very often, a combination of genetic, psychological, and environmental factors is involved in the onset of a depressive disorder. Later episodes of illness typically are precipitated by only mild stresses, or none at all.

Depression in Women

Women experience depression about twice as often as men.¹ Many hormonal factors may contribute to the increased rate of depression in women—particularly such factors as menstrual cycle changes, pregnancy, miscarriage, postpartum period, pre-menopause, and menopause. Many women also face additional stresses such as responsibilities both at work and home, single parenthood, and caring for children and for aging parents.

A recent NIMH study showed that in the case of severe premenstrual syndrome (PMS), women with a preexisting vulnerability to PMS experienced relief from mood and physical symptoms when their sex hormones were suppressed. Shortly after the hormones were re-introduced, they again developed symptoms of PMS. Women without a history of PMS reported no effects of the hormonal manipulation.^{6,7}

Many women are also particularly vulnerable after the birth of a baby. The hormonal and physical changes, as well as the added responsibility of a new life, can be factors that lead to postpartum depression in some women. While transient “blues” are common in new mothers, a full-blown depressive episode is not a normal occurrence and requires active intervention. Treatment by a sympathetic physician and the family's emotional support for the new mother are prime considerations in aiding her to recover her physical and mental well-being and her ability to care for and enjoy the infant.

Depression in Men

Although men are less likely to suffer from depression than women, three to four million men in the United States are affected by the illness. Men are less likely to admit to depression, and doctors are less likely to suspect it. The rate of suicide in men is four times that of women, though more women attempt it. In fact, after age 70, the rate of men's suicide rises, reaching a peak after age 85.

Depression can also affect the physical health in men differently from women. A new study shows that, although depression is associated with an increased risk of coronary heart disease in both men and women, only men suffer a high death rate.²

Men's depression is often masked by alcohol or drugs, or by the socially acceptable habit of working excessively long hours. Depression typically shows up in men not as feeling hopeless and helpless, but as being irritable, angry, and discouraged; hence, depression may be difficult to recognize as such in men. Even if a man realizes that he is depressed, he may be less willing than a woman to seek help. Encouragement and support from concerned family members can make a difference. In the workplace, employee assistance professionals or work-site mental health programs can be of assistance in helping men understand and accept depression as a real illness that needs treatment.

Depression in the Elderly

Some people have the mistaken idea that it is normal for the elderly to feel depressed. On the contrary, most older people feel satisfied with their lives. Sometimes, though, when depression develops, it may be dismissed as a normal part of aging. Depression in the elderly, undiagnosed and untreated, causes needless suffering for the family and for the individual who could otherwise live a fruitful life. When he or she does go to the doctor, the symptoms described are usually physical, for the older person is often reluctant to discuss feelings of hopelessness, sadness, loss of interest in normally pleasurable activities, or extremely prolonged grief after a loss.

Recognizing how depressive symptoms in older people are often missed, many health care professionals are learning to identify and treat the underlying depression. They recognize that some symptoms may be side effects of medication the older person is taking for a physical problem, or they may be caused by a co-occurring illness. If a diagnosis of depression is made, treatment with medication and/or psychotherapy will help the depressed person return to a happier, more fulfilling life. Recent research suggests that brief psychotherapy (talk therapies that help a person in day-to-day relationships or in learning to counter the distorted negative thinking that commonly accompanies depression) is effective in reducing symptoms in short-term depression in older persons who are medically ill. Psychotherapy is also useful in older patients who cannot or will not take medication. Efficacy studies show that late-life depression can be treated with psychotherapy.⁴

Improved recognition and treatment of depression in late life will make those years more enjoyable and fulfilling for the depressed elderly person, the family, and caretakers.

Depression in Children

Only in the past two decades has depression in children been taken very seriously. The depressed child may pretend to be sick, refuse to go to school, cling to a parent, or worry that the parent may die. Older children may sulk, get into trouble at school, be negative, grouchy, and feel misunderstood. Because normal behaviors vary from one childhood stage to another, it can be difficult to tell whether a child is just going through a temporary “phase” or is suffering from depression. Sometimes the parents become worried about how the child’s behavior has changed, or a teacher mentions that “your child doesn’t seem to be himself.” In such a case, if a visit to the child’s pediatrician rules out physical symptoms, the doctor will probably suggest that the child be evaluated, preferably by a psychiatrist who specializes in the treatment of children. If treatment is needed, the doctor may suggest that another therapist, usually a social worker or a psychologist, provide therapy while the psychiatrist will oversee medication if it is needed. Parents should not be afraid to ask questions: What are the therapist’s qualifications? What kind of therapy will the child have? Will the family as a whole participate in therapy? Will my child’s therapy include an antidepressant? If so, what might the side effects be?

The National Institute of Mental Health (NIMH) has identified the use of medications for depression in children as an important area for research. The NIMH-supported Research Units on Pediatric Psychopharmacology (RUPPs) form a network of seven research sites where clinical studies on the effects of medications for mental disorders can be conducted in children and adolescents. Among the medications being studied are antidepressants, some of which have been found to be effective in treating children with depression, if properly monitored by the child’s physician.⁸

DIAGNOSTIC EVALUATION AND TREATMENT

The first step to getting appropriate treatment for depression is a physical examination by a physician. Certain medications as well as some medical conditions such as a viral infection can cause the same symptoms as depression, and the physician should rule out these possibilities through examination, interview, and lab tests. If a physical cause for the depression is ruled out, a psychological evaluation should be done, by the physician or by referral to a psychiatrist or psychologist.

A good diagnostic evaluation will include a complete history of symptoms, i.e., when they started, how long they have lasted, how severe they are, whether the patient had them before and, if so, whether the symptoms were treated and what treatment was given. The doctor should ask about alcohol and drug use, and if the patient has thoughts about death or suicide. Further, a history should include questions about whether other family members have had a depressive

illness and, if treated, what treatments they may have received and which were effective.

Last, a diagnostic evaluation should include a mental status examination to determine if speech or thought patterns or memory have been affected, as sometimes happens in the case of a depressive or manic-depressive illness.

Treatment choice will depend on the outcome of the evaluation. There are a variety of antidepressant medications and psychotherapies that can be used to treat depressive disorders. Some people with milder forms may do well with psychotherapy alone. People with moderate to severe depression most often benefit from antidepressants. Most do best with combined treatment: medication to gain relatively quick symptom relief and psychotherapy to learn more effective ways to deal with life's problems, including depression. Depending on the patient's diagnosis and severity of symptoms, the therapist may prescribe medication and/or one of the several forms of psychotherapy that have proven effective for depression.

Electroconvulsive therapy (ECT) is useful, particularly for individuals whose depression is severe or life threatening or who cannot take antidepressant medication.³ ECT often is effective in cases where antidepressant medications do not provide sufficient relief of symptoms. In recent years, ECT has been much improved. A muscle relaxant is given before treatment, which is done under brief anesthesia. Electrodes are placed at precise locations on the head to deliver electrical impulses. The stimulation causes a brief (about 30 seconds) seizure within the brain. The person receiving ECT does not consciously experience the electrical stimulus. For full therapeutic benefit, at least several sessions of ECT, typically given at the rate of three per week, are required.

Medications

There are several types of antidepressant medications used to treat depressive disorders. These include newer medications—chiefly the selective serotonin reuptake inhibitors (SSRIs)—the tricyclics, and the monoamine oxidase inhibitors (MAOIs). The SSRIs—and other newer medications that affect neurotransmitters such as dopamine or norepinephrine—generally have fewer side effects than tricyclics. Sometimes the doctor will try a variety of antidepressants before finding the most effective medication or combination of medications. Sometimes the dosage must be increased to be effective. Although some improvements may be seen in the first few weeks, antidepressant medications must be taken regularly for 3 to 4 weeks (in some cases, as many as 8 weeks) before the full therapeutic effect occurs.

Patients often are tempted to stop medication too soon. They may feel better and think they no longer need the medication. Or they may think the medication isn't helping at all. It is important to keep taking medication until it has a chance to work, though side effects (see section on Side Effects on page 14) may appear before antidepressant activity does. Once the individual is feeling

better, it is important to continue the medication for at least 4 to 9 months to prevent a recurrence of the depression. *Some medications must be stopped gradually to give the body time to adjust. **Never** stop taking an antidepressant without consulting the doctor for instructions on how to safely discontinue the medication.* For individuals with bipolar disorder or chronic major depression, medication may have to be maintained indefinitely.

Antidepressant drugs are not habit-forming. However, as is the case with any type of medication prescribed for more than a few days, antidepressants have to be carefully monitored to see if the correct dosage is being given. The doctor will check the dosage and its effectiveness regularly.

For the small number of people for whom MAO inhibitors are the best treatment, it is necessary to avoid certain foods that contain high levels of tyramine, such as many cheeses, wines, and pickles, as well as medications such as decongestants. The interaction of tyramine with MAOIs can bring on a hypertensive crisis, a sharp increase in blood pressure that can lead to a stroke. The doctor should furnish a complete list of prohibited foods that the patient should carry at all times. Other forms of antidepressants require no food restrictions.

Medications of any kind – prescribed, over-the counter, or borrowed – ***should never be mixed without consulting the doctor.*** Other health professionals who may prescribe a drug—such as a dentist or other medical specialist—should be told of the medications the patient is taking. Some drugs, although safe when taken alone can, if taken with others, cause severe and dangerous side effects. Some drugs, like alcohol or street drugs, may reduce the effectiveness of antidepressants and should be avoided. This includes wine, beer, and hard liquor. Some people who have not had a problem with alcohol use may be permitted by their doctor to use a modest amount of alcohol while taking one of the newer antidepressants.

Antianxiety drugs or sedatives are not antidepressants. They are sometimes prescribed along with antidepressants; however, they are not effective when taken alone for a depressive disorder. Stimulants, such as amphetamines, are not effective antidepressants, but they are used occasionally under close supervision in medically ill depressed patients.

Questions about any antidepressant prescribed, or problems that may be related to the medication, should be discussed with the doctor.

Lithium has for many years been the treatment of choice for bipolar disorder, as it can be effective in smoothing out the mood swings common to this disorder. Its use must be carefully monitored, as the range between an effective dose and a toxic one is small. If a person has preexisting thyroid, kidney, or heart disorders or epilepsy, lithium may not be recommended. Fortunately, other medications have been found to be of benefit in controlling mood swings. Among these are two mood-stabilizing anticonvulsants, carbamazepine (Tegretol®) and valproate (Depakote®). Both of these medications have gained wide acceptance in clinical practice, and valproate has been approved by the

Food and Drug Administration for first-line treatment of acute mania. Other anticonvulsants that are being used now include lamotrigine (Lamictal®) and gabapentin (Neurontin®); their role in the treatment hierarchy of bipolar disorder remains under study.

Most people who have bipolar disorder take more than one medication including, along with lithium and/or an anticonvulsant, a medication for accompanying agitation, anxiety, depression, or insomnia. Finding the best possible combination of these medications is of utmost importance to the patient and requires close monitoring by the physician.

Side Effects

Antidepressants may cause mild and, usually, temporary side effects (sometimes referred to as adverse effects) in some people. Typically these are annoying, but not serious. However, any unusual reactions or side effects or those that interfere with functioning should be reported to the doctor immediately. The most common side effects of tricyclic antidepressants, and ways to deal with them, are:

- **Dry mouth** – it is helpful to drink sips of water; chew sugarless gum; clean teeth daily.
- **Constipation** – bran cereals, prunes, fruit, and vegetables should be in the diet.
- **Bladder problems** – emptying the bladder may be troublesome, and the urine stream may not be as strong as usual; the doctor should be notified if there is marked difficulty or pain.
- **Sexual problems** – sexual functioning may change; if worrisome, it should be discussed with the doctor.
- **Blurred vision** – this will pass soon and will not usually necessitate new glasses.
- **Dizziness** – rising from the bed or chair slowly is helpful.
- **Drowsiness as a daytime problem** – this usually passes soon. A person feeling drowsy or sedated should not drive or operate heavy equipment. The more sedating antidepressants are generally taken at bedtime to help sleep and minimize daytime drowsiness.

The newer antidepressants have different types of side effects:

- **Headache** – this will usually go away.
- **Nausea** – this is also temporary, but even when it occurs, it is transient after each dose.
- **Nervousness and insomnia (trouble falling asleep or waking often during the night)** – these may occur during the first few weeks; dosage reductions or time will usually resolve them.
- **Agitation (feeling jittery)** – if this happens for the first time after the drug is taken and is more than transient, the doctor should be notified.

- **Sexual problems** – the doctor should be consulted if the problem is persistent or worrisome.

Herbal Therapy

In the past few years, much interest has risen in the use of herbs in the treatment of both depression and anxiety. St. John's wort (*Hypericum perforatum*), an herb used extensively in the treatment of mild to moderate depression in Europe, has recently aroused interest in the United States. St. John's wort, an attractive bushy, low-growing plant covered with yellow flowers in summer, has been used for centuries in many folk and herbal remedies. Today in Germany, *Hypericum* is used in the treatment of depression more than any other antidepressant. However, the scientific studies that have been conducted on its use have been short-term and have used several different doses.

Because of the widespread interest in St. John's wort, the National Institutes of Health (NIH) conducted a 3-year study, sponsored by three NIH components—the National Institute of Mental Health, the National Center for Complementary and Alternative Medicine, and the Office of Dietary Supplements. The study was designed to include 336 patients with major depression of moderate severity, randomly assigned to an 8-week trial with one-third of patients receiving a uniform dose of St. John's wort, another third sertraline, a selective serotonin reuptake inhibitor (SSRI) commonly prescribed for depression, and the final third a placebo (a pill that looks exactly like the SSRI and the St. John's wort, but has no active ingredients). The study participants who responded positively were followed for an additional 18 weeks. At the end of the first phase of the study, participants were measured on two scales, one for depression and one for overall functioning. There was no significant difference in rate of response for depression, but the scale for overall functioning was better for the antidepressant than for either St. John's wort or placebo. While this study did not support the use of St. John's wort in the treatment of major depression, ongoing NIH-supported research is examining a possible role for St. John's wort in the treatment of milder forms of depression.

The Food and Drug Administration issued a Public Health Advisory on February 10, 2000. It stated that St. John's wort appears to affect an important metabolic pathway that is used by many drugs prescribed to treat conditions such as AIDS, heart disease, depression, seizures, certain cancers, and rejection of transplants. Therefore, health care providers should alert their patients about these potential drug interactions.

Some other herbal supplements frequently used that have not been evaluated in large-scale clinical trials are ephedra, ginkgo biloba, echinacea, and ginseng. Any herbal supplement should be taken only after consultation with the doctor or other health care provider.

PSYCHOTHERAPIES

Many forms of psychotherapy, including some short-term (10–20 week) therapies, can help depressed individuals. “Talking” therapies help patients gain insight into and resolve their problems through verbal exchange with the therapist, sometimes combined with “homework” assignments between sessions. “Behavioral” therapists help patients learn how to obtain more satisfaction and rewards through their own actions and how to unlearn the behavioral patterns that contribute to or result from their depression.

Two of the short-term psychotherapies that research has shown helpful for some forms of depression are interpersonal and cognitive/behavioral therapies. Interpersonal therapists focus on the patient’s disturbed personal relationships that both cause and exacerbate (or increase) the depression. Cognitive/behavioral therapists help patients change the negative styles of thinking and behaving often associated with depression.

Psychodynamic therapies, which are sometimes used to treat depressed persons, focus on resolving the patient’s conflicted feelings. These therapies are often reserved until the depressive symptoms are significantly improved. In general, severe depressive illnesses, particularly those that are recurrent, will require medication (or ECT under special conditions) along with, or preceding, psychotherapy for the best outcome.

HOW TO HELP YOURSELF IF YOU ARE DEPRESSED

Depressive disorders make one feel exhausted, worthless, helpless, and hopeless. Such negative thoughts and feelings make some people feel like giving up. It is important to realize that these negative views are part of the depression and typically do not accurately reflect the actual circumstances. Negative thinking fades as treatment begins to take effect. In the meantime:

- Set realistic goals in light of the depression and assume a reasonable amount of responsibility.
- Break large tasks into small ones, set some priorities, and do what you can as you can.
- Try to be with other people and to confide in someone; it is usually better than being alone and secretive.
- Participate in activities that may make you feel better.
- Mild exercise, going to a movie, a ballgame, or participating in religious, social, or other activities may help.
- Expect your mood to improve gradually, not immediately. Feeling better takes time.
- It is advisable to postpone important decisions until the depression has lifted. Before deciding to make a significant transition—change jobs, get married or divorced—discuss it with others who know you well and have a more objective view of your situation.

- People rarely “snap out of” a depression. But they can feel a little better day-by-day.
- *Remember*, positive thinking will replace the negative thinking that is part of the depression and will disappear as your depression responds to treatment.
- Let your family and friends help you.

How Family and Friends Can Help the Depressed Person

The most important thing anyone can do for the depressed person is to help him or her get an appropriate diagnosis and treatment. This may involve encouraging the individual to stay with treatment until symptoms begin to abate (several weeks), or to seek different treatment if no improvement occurs. On occasion, it may require making an appointment and accompanying the depressed person to the doctor. It may also mean monitoring whether the depressed person is taking medication. The depressed person should be encouraged to obey the doctor’s orders about the use of alcoholic products while on medication. The second most important thing is to offer emotional support. This involves understanding, patience, affection, and encouragement. Engage the depressed person in conversation and listen carefully. Do not disparage feelings expressed, but point out realities and offer hope. Do not ignore remarks about suicide. Report them to the depressed person’s therapist. Invite the depressed person for walks, outings, to the movies, and other activities. Be gently insistent if your invitation is refused. Encourage participation in some activities that once gave pleasure, such as hobbies, sports, religious or cultural activities, but do not push the depressed person to undertake too much too soon. The depressed person needs diversion and company, but too many demands can increase feelings of failure.

Do not accuse the depressed person of faking illness or of laziness, or expect him or her “to snap out of it.” Eventually, with treatment, most people do get better. Keep that in mind, and keep reassuring the depressed person that, with time and help, he or she will feel better.

WHERE TO GET HELP

If unsure where to go for help, check the Yellow Pages under “mental health,” “health,” “social services,” “suicide prevention,” “crisis intervention services,” “hotlines,” “hospitals,” or “physicians” for phone numbers and addresses. In times of crisis, the emergency room doctor at a hospital may be able to provide temporary help for an emotional problem, and will be able to tell you where and how to get further help.

Listed below are the types of people and places that will make a referral to, or provide, diagnostic and treatment services.

- Family doctors

- Mental health specialists, such as psychiatrists, psychologists, social workers, or mental health counselors
- Health maintenance organizations
- Community mental health centers
- Hospital psychiatry departments and outpatient clinics
- University- or medical school-affiliated programs
- State hospital outpatient clinics
- Family service, social agencies, or clergy
- Private clinics and facilities
- Employee assistance programs
- Local medical and/or psychiatric societies

FURTHER INFORMATION

Write to:

National Institute of Mental Health Information Resources and Inquiries Branch

6001 Executive Boulevard
Room 8184, MSC 9663
Bethesda, MD 20892-9663
Telephone: 1-301-443-4513
FAX: 1-301-443-4279
TTY: 1-301-443-8431
FAX4U: 1-301-443-5158
Website: <http://www.nimh.nih.gov>
E-mail: nimhinfo@nih.gov

National Alliance for the Mentally Ill (NAMI)

Colonial Place Three
2107 Wilson Blvd., Suite 300
Arlington, VA 22201
Phone: (703) 524-7600
Internet: <http://www.nami.org>

Depression & Bipolar Support Alliance (DBSA)

730 N. Franklin St., Suite #501
Chicago, IL 60610-7204
Phone: 1-800-826-3632
Fax: (312) 642-7243
Internet: www.DBSAAlliance.org

Mental Health America

2001 N. Beauregard Street, 6th Floor

Alexandria, VA 22311

Phone: 1-800-969-6942 or (703) 684-7722

TTY: 800-443-5959

Internet: <http://www.nmha.org>

REFERENCES

- 1 Blehar MD, Oren DA. Gender differences in depression. *Medscape Women's Health*, 1997;2:3. Revised from: Women's increased vulnerability to mood disorders: Integrating psychobiology and epidemiology. *Depression*, 1995;3:3-12.
- 2 Ferketick AK, Schwartzbaum JA, Frid DJ, Moeschberger ML. Depression as an antecedent to heart disease among women and men in the NHANES I study. *National Health and Nutrition Examination Survey. Archives of Internal Medicine*, 2000; 160(9): 1261-8.
- 3 Frank E, Karp JF, Rush AJ (1993). Efficacy of treatments for major depression. *Psychopharmacology Bulletin*, 1993; 29:457-75.
- 4 Lebowitz BD, Pearson JL, Schneider LS, Reynolds CF, Alexopoulos GS, Bruce MI, Conwell Y, Katz IR, Meyers BS, Morrison MF, Mossey J, Niederehe G, Parmelee P. Diagnosis and treatment of depression in late life: consensus statement update. *Journal of the American Medical Association*, 1997; 278:1186-90.
- 5 Robins LN, Regier DA (Eds). *Psychiatric Disorders in America, The Epidemiologic Catchment Area Study*, 1990; New York: The Free Press.
- 6 Rubinow DR, Schmidt PJ, Roca CA. Estrogen-serotonin interactions: Implications for affective regulation. *Biological Psychiatry*, 1998; 44(9):839-50.
- 7 Schmidt PJ, Neiman LK, Danaceau MA, Adams LF, Rubinow DR. Differential behavioral effects of gonadal steroids in women with and in those without premenstrual syndrome. *Journal of the American Medical Association*, 1998; 338:209-16.
- 8 Vitiello B, Jensen P. Medication development and testing in children and adolescents. *Archives of General Psychiatry*, 1997; 54:871-6.

The New York State Office of Mental Health thanks the National Institute of Mental Health for providing the information contained in this booklet.

Printed by the New York State Office of Mental health in June 2008.

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New York State Office of Mental Health

Customer Relations
44 Holland Avenue
Albany, NY 12229
800-597-8481 (toll free)

For information about mental health services in your community,
contact the NYSOMH regional office nearest you:

Western New York Field Office

737 Delaware Avenue, Suite 200
Buffalo, NY 14209
(716) 885-4219

Central New York Field Office

545 Cedar Street, 2nd Floor
Syracuse, NY 13210-2319
(315) 426-3930

Hudson River Field Office

4 Jefferson Plaza, 3rd Floor
Poughkeepsie, NY 12601
(845) 454-8229

Long Island Field Office

998 Crooked Hill Road, Building #45-3
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