Everyone experiences some unhappiness, often as a result of a change, either in the form of a setback or a loss, or simply, as Freud said, "everyday misery." The painful feelings that accompany these events are usually appropriate and temporary, and can even present an opportunity for personal growth and improvement. However, when sadness persists and impairs daily life, it may be an indication of a depressive disorder. Severity, duration, and the presence of other symptoms are the factors that distinguish normal sadness from clinical depression.

Clinical **depression** is classified as a mood disorder. The primary subtypes are major depression, dysthymia (longstanding but milder depression), and atypical depression. Other depressive disorders include premenstrual dysphoric disorder (PDD or PMDD) and seasonal affective disorder (SAD).

In **major, or acute, depression**, at least five of the symptoms listed below must occur for a period of at least 2 weeks, and they must represent a change from previous behavior or mood. Episodes of major depression usually last about 20 weeks. Depressed mood or loss of interest must be present. Symptoms include:

- depressed mood on most days for most of each day -- irritability may be prominent in children and adolescents
- total or very noticeable loss of pleasure most of the time
- significant increases or decreases in appetite, weight, or both
- sleep disorders, either insomnia or excessive sleepiness, nearly every day
- feelings of agitation or a sense of intense slowness
- loss of energy and a daily sense of tiredness
- sense of guilt or worthlessness nearly all the time
- inability to concentrate occurring nearly every day
- recurrent thoughts of death or suicide

In addition, other criteria must be met:

- the symptoms listed above do not follow or accompany manic episodes (such as in bipolar disorder or other disorders)
- they impair important normal functions (such as work or personal relationships)
- they are not caused by drugs, alcohol, or other substances
- they are not caused by normal grief

Dysthymia, or chronic depression, afflicts 3 - 6% of the general population and is characterized by many of the same symptoms that occur in major depression. Symptoms of dysthymia are less intense and last much longer, at least 2 years. The symptoms of dysthymia have been described as a "veil of sadness" that covers most activities. Possibly because of the duration of the symptoms, patients who suffer from chronic minor depression do not exhibit marked changes in mood or in daily functioning, although they have low energy, a general negativity, and a sense of dissatisfaction and hopelessness.

About a third of patients with depression have **atypical depression**. Atypical depression refers to a subtype of depression characterized by mood reactivity, which is the ability to temporarily

respond to positive experiences. It is accompanied by two or more associated symptoms such as sensitivity to rejection, hypersomnia (oversleeping), overeating (usually related to carbohydrate craving), and leaden paralysis (feelings of heaviness in the arms and legs).

Seasonal affective disorder (SAD) is characterized by annual episodes of depression during fall or winter that improve in the spring or summer. Other SAD symptoms include fatigue and a tendency to overeat (particularly carbohydrates) and oversleep in winter. A minority of individuals with SAD have symptoms of undereating and being sleepless. SAD tends to last about 5 months in those who live in the northern part of the U.S.

Seasonal changes affect many people's moods, regardless of gender and whether or not they have SAD. Simply being mildly depressed during the winter does not mean that one has SAD. Living in a northern country with long winter nights does not guarantee a higher risk for depression. Changes in light may not be the only contributor to SAD.

The causes of depression are not fully known. Most likely a combination of genetic, biologic, and environmental factors play a role.

Genetic Factors: Because depression often runs in families, it may have a genetic component. Data from family, twin, adoption, and genetic studies strongly indicate a genetic factor. Studies have found that close relatives of patients with depression are two to six times more likely to develop the problem than individuals without a family history.

Biologic Factors: Evidence supports the theory that depression has a biologic basis. The basic biologic causes of depression are strongly linked to abnormalities in the delivery of certain key neurotransmitters (chemical messengers in the brain). These neurotransmitters include:

- **Serotonin:** Perhaps the most important neurotransmitter in depression is serotonin. Among other functions, it is important for feelings of well-being. Imbalances in the brain's serotonin levels can trigger depression and other mood disorders.
- **Other Neurotransmitters:** Other neurotransmitters possibly involved in depression include acetylcholine and catecholamines, a group of neurotransmitters that consists of dopamine, norepinephrine, and epinephrine (also called adrenaline). Corticotropin-releasing factor (CRF), a stress hormone and neurotransmitter, may be involved in depression and anxiety disorders.

Endocrine glands release hormones into the bloodstream that are transported to various organs and tissues throughout the body. For instance, the pancreas secretes insulin, which allows the body to regulate levels of sugar in the blood. The thyroid gets instructions from the pituitary gland to secrete hormones that determine the pace of chemical activity in the body. The more thyroid hormone in the bloodstream, the faster the chemical activity; the less hormone, the slower the metabolism.

The degree to which these chemical messengers are disturbed may be affected by other factors such as genetic susceptibility. For example, researchers have identified a defect in the gene known as SERT, which regulates serotonin and has been linked to depression.

Reproductive Hormones: In women, the female hormones estrogen and progesterone may play a role in depression.

Environmental Factors: Medications. Many prescription drugs can affect brain chemicals and trigger depression. These medications include certain types of drugs used for acne, high blood pressure, contraception, Parkinson's disease, inflammation, gastrointestinal relief, and other conditions.

Risk Factors: According to major surveys, major depressive disorder affects nearly 15 million Americans (nearly 7% of the adult population) in a given year. While depression is an illness that can afflict anyone at any time in their life, the average age of onset is 32 (although adults age 49 - 54 years are the age group with the highest rates of depression.). Other major risk factors for depression include being female, being African-American, and living in poverty.

Depression in Women: Women, regardless of nationality, race, ethnicity, or socioeconomic level, have twice the rate of depression than men. While men are more likely than women to die by suicide, women are twice as likely to attempt suicide.

The causes of such higher rates of depression may be due in part to hormonal factors:

- **Puberty:** While both boys and girls have similar rates of depression before puberty, girls have twice the risk for depression once they reach puberty. In addition to hormonal factors, sociocultural factors may also affect the development of depression in girls in this age group.
- **Menstruation:** While many women experience mood changes around the time of menstruation, a small percentage of women suffer from a condition called premenstrual dysphoric disorder (PMDD). PMDD is a specific psychiatric syndrome that includes severe depression, irritability, and tension before menstruation.
- **Pregnancy and Childbirth**: Hormonal fluctuations that occur during and after pregnancy, especially when combined with relationship stresses and anxiety, can contribute to depression. Post-partum depression is a severe depression (sometimes accompanied by psychosis) that occurs within the first year after giving birth. The rapid decline of reproductive hormones that accompany childbirth may play the major role in postpartum depression in susceptible women, particularly first-time mothers. Studies suggest that women who are more sensitive to hormone fluctuations are at greater risk for postpartum depression if they have a personal or family history of depression. Miscarriage also poses a risk for depression.
- **Perimenopause and Menopause:** Hormonal fluctuations that can trigger depression also occur when a women is transitioning to menopause (perimenopause). Sleep disruptions

are also common during perimenopause and may contribute to depression. Once women pass into menopause, depressive symptoms generally tend to wane.