People who are depressed are fearful someone might find out about their “illness.” Depression is actually a physiological disorder. Scientists are discovering that depression may be accompanied by psychological symptoms, but depression is associated first with changes in brain chemistry. These changes can cause other physical alterations in the body as well. Yet there is a stigma attached to the admission of depression.

Many times depression is disguised as physical illness. Complaints of backaches, headaches, muscle tension, constipation, fatigue, weight changes or sleep problems might be the subtle symptoms of low mood and depression. Depression may be masked by or coexist with other illnesses, and it may exist with other psychological symptoms. It can be confused with grief or other repressed emotions. Depression manifests a tremendous range of symptoms and severity.

The symptoms of depression need not be severe such as extreme pessimism, sadness and negativity, with low mood and outlook, to qualify as depression. Depression can exist without the presence of these symptoms. Some symptoms are so subtle, a person may not even be aware of them. But put enough of these symptoms together, and a change of mood occurs. This change of mood can take over your life or it can come and go resulting in “up” day and “down” days.

Generally speaking, brief low moods exist if your “down” days come and go with one or two accompanying symptoms. If the symptoms multiply, or if they come and go often enough to interfere with life’s pleasures or cause pain, a sustained mood change exists. The illness of depression commonly occurs when a combination of at least four of the following symptoms occur and last for two or more weeks.

The following are symptoms of depression:

1) **Fatigue** is a general loss of energy, tiring easily, and lack of ambition for accomplishing anything.

2) **Insomnia or the Opposite, Excessive Sleep** Trouble falling asleep or very restless sleep with frequent awakenings may be a type of anxious depression. With severe depression, a person will commonly awaken early in the morning such as 3:00 or 4:00 A.M., feeling worse, fearful, dreadful, and unable to return to sleep. In mild depression, sleep is almost an escape from life so the person sleeps excessively.

3) **Indecision** from the simplest matters to the most important is seen with depression. This may result from stress.

4) **Loss of sexual desire** may result or there may be a reduction in sexual activity or total lack of interest and loss of sex drive.

5) **Changes in eating behavior** may result in loss of appetite or excessive eating with resultant weight loss or gain.

6) **Anxiety** may be generalized which comes and goes for no apparent reason or it may yield restless, agitated feelings.

7) **Phobias** or extreme irrational anxieties may be present. About seventy percent of the people with pain disorders, severe anxieties or phobias have an associated depression.

8) **Guilt** over real or imagined events may cause remorse or shame. A person may have guilty feelings about themselves in that they cannot function as they once could.

9) **Hopelessness** may exist in a person where they feel they are incurable and nothing can be done for them.

10) **Helplessness** may result as the person feels unusually dependent, unable to take care of himself/herself.

11) **A general loss of interest** or indifference in everything that was previously important to a person.

12) **Irritability** is exhibited through excessive anger, impatience, jumpiness, annoyances or hostility.

13) **Social withdrawal** or avoidance of interaction with other people.

14) **Physical changes** or physical symptoms may be observed; some of these symptoms may include: nausea, chest pains, constipation. stomach cramps, rapid breathing, sweating, coldness, numbness or tingling of the hands and feet, headache or feelings of pressure in the head. Commonly, the depressed person interprets these symptoms as disease.

15) **Suicidal thoughts** may range from wishing you were dead to the planning of committing suicide.

16) **Delusions or hallucinations** may exist in severe depression where the person has a partial loss of reality.

Research has shown the causes of depression are imbalances in certain brain chemicals that play a major role in mood. Regardless of overt triggering factors, the underlying biochemical mechanism of depression is almost always a shift in the brain chemistry. Depression is a treatable disease if the biochemistry is understood.

The brain amine theory and the neurotransmitters such as serotonin and norepinephrine are explored. All of our moods from love, hate, anger to anxiety are related to our brain's chemistry, specifically the neurotransmitters, serotonin and norepinephrine. Neurotransmitters are chemicals that are released at the nerve endings in the brain connecting one nerve cell with another. Many antidepressant drugs work by increasing the amount of serotonin and norepinephrines at the synapses in the brain. These two neurotransmitters belong to a chemical group called the amines. The theory of depression that emerged is known as the brain amine or monoamine theory of depression. Ninety percent of these amines are located in the limbic system. The limbic system is located deep within the brain, and it controls emotions, pain perception and sleep.
A study done with five hundred patients showed a pattern of low tyrosine, phenylalanine, and 5HTP. A low glutamine level was found in fifty percent of the patients. Glutamine is an important inhibitory neurotransmitter.

The illness of depression is characterized by less than the usual amounts of amino acid products in the brain. Serotonin and norepinephrine are the most significant neurotransmitters that are depleted in the brain in people with depression.

The safest, most effective way of increasing the serotonin and norepinephrine level is with the precursor nutrients. The precursor nutrients include amino acids, enzymes, vitamins and minerals. The four basic supplements for the precursor loading program are L-Tyrosine, 5HTP, Vitamin B-Complex, Vitamin C and a multivitamin/multimineral supplement.

Research done by Alan Galenberg, at Harvard Medical School, demonstrated Tyrosine is more effective than antidepressants for the relief of depression. Tyrosine is known as the stress amino acid. Tyrosine will rapidly increase thenorepinephrine level in the brain.

Deficiencies of the "B" Complex vitamins can cause depression. Whenever depression is complicated by severe stress, illness and poor dietary habits, "B" complex vitamins may be necessary. Vitamin B6 is one of the B vitamins which is essential for the metabolism and utilization of proteins and amino acids.

Many studies indicate that traumatic life events can trigger biochemical depressions. Often stress precedes most episodes of illness and is associated with the onset of depression. Probably one of the most traumatic and stressful events of life is the loss of someone we love. This loss is the most complex one to work through because of its finality. Approximately ten to twenty percent of these grief reactions will progress to depression. Loss is the common denominator for all the psychological explanations of depression. A person feels helpless and does not want to accept that the person they loved is really gone. Loss by death challenges our adaptive and coping skills more than any other stressors. Depression from grief has no set time, but time does heal emotional wounds and soon we are able to resume our normal lifestyle. Complex grief is abnormal when it gets worse with time or is prolonged and held in. It is important that during any stage of grief, a person should continue to eat healthy foods and use supplements even if he or she does not feel like eating. It is essential for healing to take place.

Research shows that thoughts and emotions influence neurotransmitter production. They affect the body's secretions, excretions, metabolism, hormones and immune function. Worrisome thoughts, habitual negative thinking and stress eventually alter the brain's biochemistry and the brain is not able to produce needed neurotransmitters. Our behavior, thoughts and feelings are contingent upon our brain's biochemistry. Whatever the brain tells the body to do, it will do.

Depression is commonly overlooked in persons under twenty and over sixty-five. Yet, both age groups have crises, losses and health changes that can divert and cause the depression to be missed. It is essential that both groups receive adequate nutrient supplementation.

Depression and suicide has increased in the younger age group. Even children as young as five have been known to commit suicide. A child's coping skills are poorly developed and the stresses of life can simply overwhelm them. The teenage suicide rate has doubled in the past twenty years, especially in the fifteen to nineteen year old group. A diet high in sugar and caffeine contributes to a drop in neurotransmitters and hence, depression. Depression and feelings of hopelessness and helplessness are the bottom line in all of the suicides.

In the senior population group, some forty to fifty percent suffer from depression or low moods. Aging is stress in itself both emotionally and physically. The brain as it ages becomes increasingly sensitive to nutritional and other biochemical changes in the body; the elderly have up to a fifty-two percent reduction in their neurotransmitters. Body changes such as reduction in thyroid levels, a drop in growth hormones, such as DHEA, and a fifty percent drop in adrenal function contribute to the problems.

Other conditions in the older population predispose them to the brain chemical changes leading to depression. Nutritional deficiencies are among the most important. Poor eating habits, poor food digestion and absorption, teeth and other mouth problems all contribute to low moods and depression. Physical illness can precipitate depression. The side effects of medications of all sorts can increase the monoamine oxidase (MAO) level. This can destroy the 'good mood' chemicals in the brain.

According to Sherry Rogers, M.D., in her book *Depression Cured at Last!*, up to two million patients are hospitalized each year and as many as 140,000 die of side effects or reactions related to various prescription drugs.

Depression effects everyone at one time or another. At present, one in twenty Americans suffers from clinical depression. One person in every five will suffer a depressive episode at some point in their life, possibly more. Children are not immune. Five to seven percent have some type of depression problem.

In summary, there are various reasons why you or a member of your family may be depressed:

a) low levels of the brain's master controller - serotonin.

b) amino acid deficiencies.

c) a genetic predisposition in your family.

d) chemical depression and faulty neurotransmitter production.

e) prescription drug abuse.
NUTRITIONAL SUPPORT PROGRAM

Total Vite or Brain Link or BNC+GABA every morning
MagLink - 2 twice daily - if loose stools or diarrhea occur, decrease by one or spread dose out until bowel tolerant.
Mood Sync* - 2 twice daily depending on your weight
Tyrosine - 850 or 500 mg - 2 daily depending on your weight
SAMe* - 2 daily
DHEA 50mg - upon arising in the morning, if you are over 40 years old
Glutamine capsules or powder - 2,000mg daily
Rodex B6 - time-release - one in the morning; helps amino acids to metabolize more efficiently
5HTP* - begin with one capsule; raises serotonin level and helps with insomnia

FOR TEENS
Brain Link - follow label instructions according to body weight
MagLink - 1 three times daily
Teen Link* - 1 three times daily
5HTP* - 1 capsule

CHILDREN
HTPI0* - 1 to 2 capsules, depending on weight

*NOTE: Do NOT take if you are using an SSRI, tricyclic or MAO inhibitor medications.

REFERENCES AND RESOURCES
Rogers, Sherry A., M.D., Depression Cured at Last! Sarasota, FL: SK Publishing, 1997

This article is not intended to give medical advice or replace the services of a physician. It is for educational purposes only.