

# SUNSHINE SHARING

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## Signs and Symptoms of Excessive Stress

**Circulatory:** Angina, sensations of pressure in the chest, chest pain, rapid heartbeat, elevated blood pressure

**Digestive:** Chronic indigestion, nausea, diarrhea, ulcers, irritable bowel, Crohn's disease

**Muscular:** Stiff neck and shoulders, chronic muscle tension, low back pain, tension headaches, migraines, muscle tremors or twitching, teeth grinding

**Skin:** Skin eruptions, hives, eczema, cold hands and feet, profuse sweating, sweating palms

**Respiratory:** Allergies, asthma, shortness of breath

**Energy:** Fatigue, disturbed sleep patterns, insomnia or sleeping too much, anxiety, panic attacks, depression

**Adrenal Exhaustion:** Dark circles under eyes, quivering tongue, pulsing pupils, craving for sweets, blood sugar problems (hypoglycemia and diabetes)

**Mental:** Absent mindedness, loss of concentration, confusion, loss of memory

**Emotional:** Fear, withdrawal, negative self-talk, loss of interest in life, emotionally sensitive, moody, irritable, loss of sense of humor, apprehension

**Social/Behavioral:** Change in social activities, antisocial behavior, inappropriate social responses, intense pacing, increased alcohol intake

## Reading the Signs of Stress



It's been said that the only sure things in life are death and taxes, but in this modern world we can add a third sure thing we're all likely to experience—stress. Stress is just a fact of life in modern society and it has a very negative impact on our health.

While we have all experienced stress, we may not be aware of what stress is from a biological standpoint, or what we can do to prevent it from damaging one's health. In this issue of *Sunshine Sharing* we'll be exploring the effects of stress on the human body. We'll also examine the signs that a person's stress level is too high and may be damaging their health. Finally, we'll learn about herbs, supplements, and lifestyle changes that can lower one's stress level.

The body is programmed to survive. When something threatens a person's survival there is a series of reactions in the body which prepare the body to cope with the threat. Dr. Hans Selye (1936), was the first researcher to document the effects of stress on health. He conducted experiments in laboratory animals and found that stress, coupled with nutritional deficiency, plays a role in the development of every disease.

As a result of the work of Dr. Selye and other researchers, we now have a very clear picture of what happens in the body when survival is threatened. When the mind perceives danger, a series of chemical reactions, sometimes called the fight or flight response, is triggered. The brain signals the hypothalamus to secrete the adrenocorticotrophic hormone releasing factor which travels to the pituitary where it stimulates the production of the adrenocorticotrophic stimulating hormone (ACTH). ACTH travels to the adrenals causing the increased production of epinephrine (adrenaline) and cortisol.

Epinephrine is both a hormone and a neurotransmitter in the sympathetic nervous system. It heightens physical alertness and activity. Cortisol is an anti-inflammatory hormone that suppresses the immune response. There are other changes in body biochemistry as well, including alterations in enzyme systems and prostaglandin production.

The net effect of all of these changes is to prepare the body for action. The body is "tweaked" physically to be able to fight the dangerous situation or escape from it. On the following page, you'll find a list of some of the changes that take place in the body as a result of the release of these chemical messengers.

If you study the sidebar (on page 2) listing some of the physical changes that take place in the body under stress, you can readily see how this coping mechanism could help the body when the danger is real and physical, such as facing a bear or a mountain lion, or charging an enemy in battle. The body is

## Reading the Signs of Stress

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operating at peak efficiency to defend itself or flee the situation.

One problem is that this mechanism is triggered whether the danger is physical or psychological. It is even triggered if the danger is imagined and not real. (Think of what happens when you watch a scary movie.) In modern society the dangers we encounter are more psychological than physical. A stack of unpaid bills, a lawsuit, and congested freeway traffic are still perceived by the brain as a threat to survival, but there isn't much one can do physically about these problems. However, the same physical reactions occur.

Soldiers who have been at war for a long time experience a phenomenon that used to be called shell shock. In World War II it was called battle fatigue. Today it is called by the fancy name of *post-traumatic stress disorder*. Whatever the name, the cause and the effects are the same, and one doesn't have to go to war to experience it. Anyone who is exposed to repeated stress

### Physical Changes in the Body Resulting from Stress:

Blood is shunted away from digestive organs and outward to the muscles to ensure we are prepared for action.

There is a decrease in digestive activity and peristalsis of the intestines.

The heart rate and blood pressure increase. This increases the blood flow both to the brain and to the limbs.

Sugar is released into the blood stream to provide energy for brain and muscle activity.

Muscles tense for action.

Blood clotting occurs more rapidly so the body can prevent blood loss if there are internal or external injuries.

The skin becomes less sensitive as blood withdraws from the skin (so injuries will not be felt as acutely), while the pupils dilate to allow for increased visual perception..

over a prolonged period of time will eventually experience battle fatigue.

After any stressful experience, it takes some time for the biochemistry of the body to return to normal. Even with a minor stress which causes one to tense up a little, it can take as much as 20 minutes for the stress hormones and chemicals to dissipate and muscles to relax. When the stress is repeated at frequent intervals, the body is never given a chance to recover.

Dr. Seyle identified three stages to the stress response. The first stage occurs when a stressful event causes *shock*. The shock is followed by a mobilization of the stress-coping mechanisms we've just described.

Dr. Selye called the second stage of stress the *general adaptation syndrome*. During this stage the body appears to return to normal, but if another stress is added, then the body has a more difficult time dealing with it. With continued exposure to stress a person may develop disease conditions like those listed on the first page.

*Exhaustion* is the third and final stage of stress. At this point, the stress overwhelms the organism and the person or animal dies.

Millions of Americans are in the second (general adaptive stage) of stress. Drs. Thomas H. Holmes and Richard H. Rahe, psychiatrists at the University of Washington Medical School, updated Seyle's original list (1937) in their *Social Readjustment Scale* (1967). See next column. Different life events are scored with different amounts of "stress points." They found that if a person had less than 150 points during a year, they had only a 30% chance of developing a stress related disease. 150 - 299 points meant there was a 50% chance of a stress induced illness. Over 300 points meant an 80% chance of a stress-related illness.

Take this little test for yourself and look at the list of stress-related signs and symptoms on page 1. If you scored high on the *Social Readjustment Scale* and are suffering from some of the symptoms listed on page one, try reducing your stress using some of the natural aids discussed on the pages that follow.

## Holmes and Rahe Social Readjustment Scale

Life Events	Score
Death of spouse	100
Divorce	73
Marital separation from mate	65
Detention in jail, other institution	63
Death of a close family member	63
Major personal injury or illness	53
Marriage	50
Fired from work	47
Marital reconciliation	45
Retirement	45
Major change in the health or behavior of a family member	44
Pregnancy	40
Sexual difficulties	39
Gaining a new family member (through birth, adoption, oldster moving, etc.)	39
Major business readjustment (merger, reorganization, bankruptcy)	39
Major change in financial status	38
Death of close friend	37
Change to different line of work	36
Major change in the number of arguments with spouse	35
Taking out a mortgage or loan for a major purchase	31
Foreclosure on a mortgage or loan	30
Major change in job responsibilities	29
Son or daughter leaving home (marriage, attending college)	29
Trouble with in-laws	29
Outstanding personal achievement	28
Spouse beginning or ceasing to work outside the home	26
Beginning or ceasing formal schooling	26
Major change in living conditions	25
Revision of personal habits (dress, manners, associations, etc.)	24
Trouble with boss	23
Major change in working hours or conditions	20
Change in residence	20
Change to a new school	20
Major change in usual type and/or amount of recreation	19
Major change in church activities (a lot more or less than usual)	19
Major change in social activities (clubs, dancing, movies, visiting)	18
Taking out a mortgage or loan for a lesser purchase (for a car, TV, freezer, etc.)	17
Major change in sleeping habits	16
Major change in the number of family get-togethers	15
Major change in eating habits	15
Vacation	13
Christmas season	12
Minor violations of the law (traffic tickets, etc.)	11



# Tools for Reducing Stress

Before we reach for an herb or supplement to help us deal with stress, let's look at the first—and most important—thing we need to do to reduce stress in our lives. Since most of the stress we encounter in the modern world is psychological, we need to deal with the problem at its source—the mind.

Although we may be conditioned to respond to those unpaid bills or that freeway traffic as a threat to our existence, it really isn't. If we can retrain our mind, we can actually retrain the way our body responds to these events and avoid triggering the cascade of stress-producing hormones in the first place.

## The Relaxation Response

In 1976 Dr. Herbert Benson wrote a now famous book, *The Relaxation Response*. Dr. Benson documented how using a simple meditation technique can reduce stress levels and stress-related illness. Dr. Benson's contribution was to remove the religious overtones from meditation and document its benefits scientifically. He devised a simple non-religious meditative technique that anyone can use to reduce stress levels.

There are three steps to doing a relaxing meditation. First, get into a comfortable position, either sitting or lying down, and consciously allow the muscles of your body to relax. Second, start breathing slowly and deeply. Third, create a single point of mental focus so that you can stop the flow of obsessive thoughts in your brain (sometimes referred to as monkey chatter).

Dr. Benson simply had the person repeat the word "one" over and over again in their mind. Another simple technique is to count with your breathing. As you breath in and out you think, "In-two-three-four, hold-two-three-four, out-two-three-four, and hold-two-three-four," and repeat this

pattern over and over again. Quieting the mind allows the brain to stop signalling the release of stress chemicals through the hypothalamus, resulting in a rapid reduction of stress levels.

This simple technique, if practiced daily for only 20-30 minutes can profoundly reduce a person's stress level. Of course, when the body is severely worn down by stress, supplements can help the body repair and rebuild.

## Adaptagens

When it comes to dealing with stress, the most important supplements a person can turn to are a class of herbs called adaptagens. Adaptagens get their name from their ability to mediate Selye's general adaptive syndrome. Adaptagens work on the hypothalamus and pituitary glands to reduce the output of stress hormones, thereby lowering stress responses in the body.

The first herb recognized to have adaptagenic properties was **eleuthero root** (formerly known as Siberian ginseng). Russian researchers discovered this distant cousin of ginseng improved stamina and endurance in athletes, reduced errors in workers, and helped improve the immune response. It acts as a tonic to the adrenal glands and helps the body withstand heat, cold, infection, and physical stresses, including radiation.

When Americans first went into space they came back very ill. Russian cosmonauts were not experiencing the same problems. Dr. Bruce Halstead, a California M.D. and researcher, asked the Russians to share their secret. Now American astronauts also use eleuthero root to help them adapt more easily to weightlessness in space.

Since the discovery of eleuthero root, numerous other adaptagens have been identified. One of these is schizandra berries, a tonic used in Chinese medicine. Schizandra helps with many of the health problems brought on by chronic stress, including disturbed sleep patterns, fatigue, shortness of breath, loss of concentration, forgetfulness and irritability. It is the primary

herb in **Nervous Fatigue Formula**, a Chinese adaptagenic blend that treats the effects of mental and emotional burnout.

Nervous Fatigue Formula is an amazing product for exhausted adrenals, chronic stress, fatigue, restless sleep, and chest pains brought on by anxiety and stress. According to Chinese tradition, it helps "calm the spirit," promoting deeper sleep, reduced stress levels, a calmer mind and more energy. It is particularly indicated for people who are tired after a long bout with stress but cannot sleep peacefully through the night. Four capsules twice a day or three capsules three times per day will usually have a person sleeping more peacefully within two to three days.

Schizandra is also an ingredient in **Nutri-Calm**, an antistress vitamin supplement. This blend is very helpful for people who are always restless and "on the go," having difficulty relaxing. One tablet two or three times each day often helps people feel less restless and more relaxed without losing energy.

## Supporting the Adrenals

Both Nutri-Calm and Nervous Fatigue formula support the health of the adrenal glands. However, sometimes when the adrenals are severely depleted a stronger formula is necessary. **Adrenal Support** is a powerful formula for rebuilding exhausted adrenals. Combining some of the same antistress vitamins found in Nutri-Calm with schizandra and other adrenal-supporting herbs and nutrients, Adrenal Support also contains an adrenal glandular.

When symptoms of severe adrenal fatigue are present (exhaustion, extreme sensitivity, etc.) just one or two capsules of Adrenal Support can help a person begin to feel normal again in as little as two or three days. This powerful blend is not intended for long term use, however. After three to six months, a person should use Nervous Fatigue Formula, Nutri-Calm or Suma Combination if they feel the need for continued support of the adrenal glands.

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## Tools for Reducing Stress

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Suma is another herb shown to have adaptagenic properties. Suma has been called Brazilian ginseng because of its tonic properties. **Suma Combination** combines suma with eleuthero root, astragalus, ginkgo, and gotu kola. In combination, the herbs in Suma Combination reduce stress levels, enhance immune function and improve memory and concentration.

A recent addition to the arsenal of stress-fighting formulas is **Adap-taMax**. This formula combines a variety of adaptagenic herbs including: Korean ginseng, eleuthero root, rhodiola, ashwaganda, gynostemma, schizandra, and suma. The formula also contains rosemary, astragalus, reishi mushrooms, alfalfa, kelp, and ginkgo. Together, these herbs not only reduce stress responses, they also enhance immunity, reduce oxidative damage, brighten moods and support the immune system.

## Nervines

Besides adaptagens and adrenal tonics, nervine herbs can also help the body cope with stress. One of the herbs that can be extremely helpful for reducing stress levels is **kava kava**. This Polynesian herb is a powerful muscle relaxant and mood elevator. It helps to relax the body without dulling the mind. For people whose stress is creating chronic muscle tension and difficulty "unwinding," kava

kava can be taken at the end of the day to help the body unwind from the stress of the day.

Other nervine formulas that can help the body relax, countering the tensing effects of stress, include **Stress-J** and **Stress Relief**. These herbal blends can reduce anxiety, tension, and nervousness associated with stress.

## Other Aids to Reducing Stress

Moderate exercise is another way to reduce stress levels. Since stress produces chemicals designed to promote heightened activity, exercise can help burn off these stress related chemicals. Just taking a walk when you feel distressed or tense will often help both the body and mind to relax and let go of the stress and tension.

Avoiding sugar, alcohol, and caffeine can also help to reduce stress levels. Caffeine whips the adrenals by overstimulating them, which contributes to adrenal fatigue and feeling burned out. The fatigue that accompanies the exhausted adrenal glands prompts the person to consume more caffeine in an effort to increase their energy level, resulting in a vicious downward spiral. Sugar tends to have similar effects.

Even if we can't eliminate all of the stressful events in our life, we can reduce their impact on our body and our health by following some of these simple steps.

## Sources

For more information about stress and natural ways to reduce it, talk to the person who gave you this newsletter. His or her name should appear below. You can also consult some of the sources listed below for additional information.

*The Relaxation Response* by Herbert Benson

*The Cortisol Connection* by Shawn Talbott

*Head First: The Biology of Hope* by Norman Cousins

*Timeless Healing* by Herbert Benson

*The Stress of Life* by Hans Selye

*Activating the Healing Response* by Steven Horne

## Important Notice

The information in *Sunshine Sharing* is for educational purposes only and should not be used to diagnose and treat diseases. If you have a health problem, we recommend you consult a competent health practitioner before embarking on any course of treatment.

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