

# *Nutritional Aspects of Blushing*

by

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It can be very embarrassing and devastating to blush for no reason whatsoever. Blushing is the action of the [autonomic nervous system](#) (ANS) and in particular the "[Sympathetic Nervous System](#)"(SNS) over which we have no direct control. Blushing is associated with anxiety and the blushing is often confused with the cause of anxiety. Thus the person is usually trying to stop blushing and/or being anxious in a vain attempt to control the Sympathetic Nervous System which by definition cannot be controlled by the mind.

This branch of the ASN is activated by adrenaline - the fear hormone - and if we want to know why the body is overproducing adrenaline or releasing it at the wrong time, we need to understand the function of adrenaline.

Adrenaline serves to increase blood sugar levels throughout the body to give the body enough energy to deal with a crisis. (See [image](#)) Normally such a crisis occurs when suddenly out of the blue we are faced with a real life danger. Thus the Sympathetic Nervous System is a valuable mechanism that can save our life.

Once this SNS is activated by a flaw in the underlying biochemical mechanism - quite unrelated to environmental stresses - symptoms can take all sort or weird physical symptoms. The reason for this is explained in:

## [Anxiety and the Sympathetic Nervous System](#)

But the problem is that excess adrenaline production can also occur when the brain is suddenly starved of energy (of sugar). This may happen when we suffer from a metabolic disorder such as [Insulin Resistance](#) or [hypoglycemia](#). This may be quite unrelated to circumstances in the environment. The function of adrenaline is to push nutrients - glucose, fatty acids and protein - across cell membranes. Carbohydrates (sugars in food) are a major source of biological energy called adenosine triphosphate ([ATP](#)) indispensable as a source of energy to the brain.

Without this biological energy brain cells will die and so will we. Hence the brain has a mechanism to activate the adrenal glands to pour adrenaline into the system and this will activate the SNS. Adrenaline functions to convert [glycogen](#) - sugar stores in muscles and the liver - into glucose, so as to feed the brain with energy. The brain, although only 2 per cent of

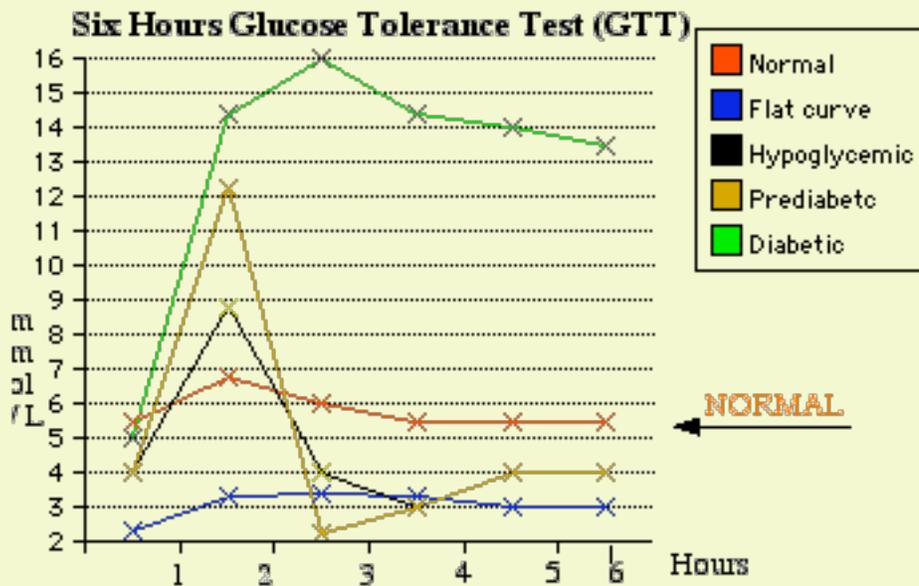
body weight, requires about 70 per cent of available glucose to energize biochemical machinery in the brain.

Thus when insulin resistance causes the blood sugar levels to rise initially, it is soon followed by more insulin secretion, called [hyperinsulinism](#). This results in a sudden drop of blood sugar reaching the brain. The brain then switches on the adrenal glands to pour adrenaline into the system. Adrenaline among others dilates blood vessels - to provide peripheral muscles with energy in preparation of strenuous action.

Thus if we want to prevent us blushing uncontrollably, we need to treat the underlying insulin resistance that is responsible for activating the SNS.

Prediabetic insulin resistance or hypoglycemia can be medically tested by Dr George Samra's special Glucose Tolerance Test for Hypoglycemia (GTTH) as described [here](#). An alternative is paper-and-pencil test called The Nutrition-Behavior Inventory Questionnaire (The [NBI](#)). However this may be less accurate.

The results of a GTTH can be seen from this illustration:



The major and foremost treatment for hypoglycemia is going on a [hypoglycemic diet](#), (similar to a diabetic diet) which consists of a small frequent snacks of high protein and low glycemic diet, supplemented with vitamins and minerals, such as B complex, vitamin C, zinc and chromium picolinate, omega-3 fatty acids (fishoil). For some of the hypoglycemic herbs see [here](#).

One immediate remedy for blushing is taking [GLYCERINE](#), before you expect to be in a situation that may cause you to blush. You could also try out [phenylalanine](#) or tyrosine available from health food stores. But no guarantee is given.

Another likely candidate would be the supplementation of [lecithin](#). It contains nutritional forerunners of phosphatidylcholine - a hormone - that could together with vitamin B5 activate the parasympathetic nervous system and counteract the SNS. However, it will not treat the hypoglycemia! Other possible single remedies could be [Seredyn](#) or [Eredicane](#), although results have been controversial.

One chemical solution is to ask your doctor to prescribe [Propranolol](#) one of the non-sedating anxiety pills in cases of emergency. It is an beta-adrenergic blocking agent counteracting the effects of the Sympathetic Nervous System. It is primarily used in the treatment of high blood pressure and angina. It can also counteract anxiety attacks without fogging up intellectual thinking. But of course this is not going to cure the underlying biochemical imbalance and they have inevitable side effects for some people. Some of its side effects are: Propranolol is generally well tolerated, and side effects are mild and transient. Rare side effects include abdominal cramps, diarrhea, constipation, fatigue, insomnia, nausea, depression, dreaming, memory loss, fever, impotence, lightheadedness, slow heart rate, low blood pressure, numbness, tingling, cold extremities, sore throat, and shortness of breath or wheezing.

Blushers can be expected to have a low self-image because of the embarrassment they have to face. But more importantly their metabolic disorder will unavoidably affect your self-image, because they are constantly bombarded with stress hormones over which you have no control.

Provided you treat the biological aspect of blushing, it may pay to do a course in

### [Self-Help Psychotherapy Course](#)

from beginning to the end. Pay particular attention when you come to a discussion of [The Wooden Leg Argument](#). It deals with a specific kind of negative self-image associated with a physical feature or disability in one's appearance

The course hones in on the improvement of the self-image and includes a course Assertiveness training, helping a person to assert him/herself without being aggressive. It is a program of conflict resolution from within as well as in social relationships. It also comprised a Values Clarification Course helping you to choose a compatible partner or selecting a career

Psychological treatment *alone* is seldom going to "cure" the blushing syndrome.