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# HerbClip™



**FILE: ▪Adaptogens**
**▪Diabetes**
**▪Hyperglycemia**

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**RE: Exploring Adaptogens in Theoretical Treatments for Diabetes**

Dixon M. Diabetes—beyond hyperglycemia: a theoretical basis for treatment using adaptogenic herbs. *Canadian Journal of Herbalism.* 2004;25(3):28–44.

Diabetes is a major health concern in the U.S. The lifetime risk of developing diabetes for someone born in 2000 is estimated to be 32.8% for males and 38.5% for females.[1] The pathogenesis of diabetes is understood to entail disruptions in the body's endocrine system. The author takes a novel approach to this dysregulation by describing the ways in which the hormones secreted during chronic stress may contribute to the onset of diabetes.

The influences of the endocrine system on blood sugar regulation are controlled by the interaction of the hypothalamus and the pituitary in the brain; the adrenal glands, one of which rests atop each kidney; and the beta-cells of the pancreas, which secrete insulin. Cortisol, the "stress hormone" is secreted by the adrenal glands in response to signals from the hypothalamus and pituitary, an interaction referred to as the HPA axis. Cortisol increases the production of glucose while at the same time decreasing its utilization. Additionally, it may be directly toxic to the pancreas, as well as other tissues of the body. The resultant increase in blood sugar stimulates the pancreas to secrete insulin in an attempt to bring the blood sugar back into homeostasis. However, excessive insulin production can cause an excessive drop in blood sugar, which can stimulate further secretion of cortisol. Cortisol also suppresses the activity of leptin on the hypothalamus, which stimulates feelings of hunger and contributes to obesity.

The use of adaptogenic herbs, which "have a normalizing or stabilizing action" on the body, may help restore homeostasis and be part of an effective treatment diabetes prevention and treatment strategy. Traditionally, such adaptogens include Asian ginseng (*Panax ginseng*), ashwaghanda (*Withania somnifera*), schisandra (*Schisandra chinensis*), and eleuthero (*Eleutherococcus senticosus*). Other herbs that can specifically nourish the adrenal glands and decrease anxiety may also be helpful. These include licorice (*Glycyrrhiza glabra*), St. John's wort (*Hypericum perforatum*) and verbena (*Verbena officinalis*).

Few clinical studies have evaluated the use of the herbs mentioned in this article for the prevention or treatment of diabetes. Research evaluating the use of adaptogenic herbs for diabetes is needed.

*—John Neustadt, ND4*

**References**

1. Narayan KM, Boyle JP, Thompson TJ, Sorensen SW, Williamson DF. Lifetime risk for diabetes mellitus in the United States. *JAMA.* Oct 8 2003;290(14):1884-1890.

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