

Using Mind Body Techniques to Improve Blood Glucose

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HOW STRESS AFFECTS DIABETES

Stress causes the body to release adrenaline and cortisol to mobilize the body's ability to meet the demands of stress. These reactions cause the body to convert fat and glucose into usable cellular energy so the body can respond to threat, both real and perceived. The Flight/Fight response does not always work well for people with diabetes. Insulin may become ineffective in getting the energy into the cells, so glucose increases in the blood stream. The Flight/Fight response and increases in blood sugar can be generated just thinking about stressful events without the stress actually occurring. Learning mind body techniques to manage stress can help to better balance blood sugar.



MIND BODY APPROACH TO UNDERSTANDING STRESS

Our life history and our view of the world impacts our assessments of what we believe are possible or not possible for us to achieve. These assessments further impact the typical moods we tend to fall into on a regular basis. Moods dictate the actions we will or will not take and create a “story” the body lives in. This is the mind body connection. There is much we can do to alter that story by becoming mindful of our moods. Anxiety, resignation, resentment, and shame/embarrassment are stressful moods in and of themselves. What we think and how we feel has a huge impact on the way our bodies interpret stress. Developing an Observer Mind can help lower the effects of stress and balance blood sugar in diabetics.

MIND BODY TECHNIQUES TO LOWER STRESS & BALANCE BLOOD SUGAR

Stress Management programs that involve muscle relaxation, imagery, diaphragmatic breathing and learning ways to modify reactions to the Flight/Fight reaction have been associated with significant lowering of A1C levels. *Standardized exercise programs and Hatha Yoga practice* have been shown to decrease fasting blood sugar by 27% and 29% respectively. The *Mindfulness Based Stress Reduction* technique demonstrated a lowering of A1C by nearly .5% after one month of daily practice. Improvements of <0.5% in Hb A1C have been associated with significant reduction in risk of microvascular complications. A 3 month study showed that a combination of *biofeedback and relaxation therapy* helped participants change their response to stress and thereby lower the effects of stress hormones, such as cortisol.

THE MINDFUL BREATHING TECHNIQUE (DOWNLOAD THIS TECHNIQUE AT THE WEBSITE)

1. Sit in a comfortable, upright position
2. Place one hand over your abdominal area, about 1 inch above navel
3. Begin by noticing your breathing, is your chest and shoulders rising and falling?
4. As you exhale through your mouth, slowly, sense the energy lowering to the level of your belly
5. Now inhale slowly through your nostrils as you expand your belly (feel it expand)
6. Exhale slowly through your nostrils as you contract your belly (feel it contract)
7. Inhale slowly to the count of five full seconds, expanding your belly
8. Exhale slowly to the count of five full seconds, contracting your belly
9. Do this daily for about 5 minutes to develop your breath meditation practice
10. Expand your practice to 10 minutes daily, or take time during your day to practice for 5-10 minutes
11. Begin to notice the changes in your mood, work performance, relationships and clarity of mind



This pattern of inhaling for five seconds and exhaling for five seconds using the diaphragm results in a 10 second respiration cycle or 6 breaths per minute. This breathing pattern maximizes the release of peaceful biochemicals in your body, lowers adrenaline and cortisol. Reducing the effects of stress helps balance blood sugar.

RESOURCES:

www.mindstreaming.net

Janet Doucette's website for inspired training in **Stress Reduction, Meditation, and Cultivating Inner Peace**, includes **Free Training in Stress Relief** based on the information in this seminar as well as audio meditations and downloadable PowerPoint **Mini-Meditation Training**. (To download the above technique go to the website's Audio Sanctuary and choose "Mindful Breathing")

Conference Handouts and pdf copies of the research documents are available at the Mindstream website. Directions: Enter the Mindstream at www.mindstream.com, click on Janet Doucette's link, then on Conference Links to download the following research documentation.

Stress Management Programs: Stress Management Improves Long-Term Glycemic Control in Type 2 Diabetes, 2002, Surwitt, et al. Diabetes Care Vol 25, Number 1.

Yoga & Type 2 Diabetes: Effect of exercise therapy on lipid profile and oxidative stress indicators in patients with type 2 diabetes, 2008, Gordon et al. BioMed Central

Meditation and Glycemic Control: Mindfulness-Based Stress Reduction is associated with improved glycemic control in Type 2 Diabetes Mellitus: A Pilot Study. 2007, Rosenweig, et. al. Alternative Therapies, Vol 13, Number 5.

Biofeedback, Stress Reduction and Blood Sugar: Biofeedback Assisted Relaxation in Type 2 Diabetes. 2005, McGinnis et al. Diabetes Care, Vol 28. No 9.

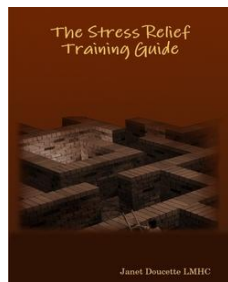
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