



WHITEPAPER: Managing Blood Sugar With Kitchen Herbs by Suzanne Soroczak (ssoroczak@muih.edu) Maryland University of Integrative Health

INTRODUCTION

Diabetes mellitus is one of the most studied ailments of the 21st century. However, as the number of people suffering from type 2 diabetes has grown exponentially more research is being conducted not only to determine a direct cause(s), but also on allopathic and complementary and alternative medicine (CAM) treatment options. There have been a number of natural health products (NHP) have been evaluated for their effect on the progression of type 2 diabetes and management of the disease. There is strong evidence (double-blind, placebo-controlled trial of 12-month duration) that Tianqi, a TCM remember made up of 10 traditional Chinese medicinal herbs, can reduce the progression of pre-diabetes to type 2 diabetes by 32% (Grossman, Roscoe, & Shack, 2018). In addition, a number of western, Ayurveda, and TCM medicinal herbs have been shown to reduce glycated hemoglobin (A1C) at least 0.5% in randomized controlled trials (Grossman, Roscoe, & Shack, 2018; Arumugam, Manjula, Paari, 2013; Choudhury et al., 2018).

This article aims to highlight the latest evidence-based research on type 2 diabetes and readily available kitchen herbs that can be used to manage glycemic homeostasis. It will highlight research on the user of vinegar, cinnamon, garlic, and turmeric & black pepper.

VINEGAR

While you may have this remarkable condiment sitting in your cupboard for use in salads, scientists have been researching the effect of vinegar on gut health and diabetes for decades. New evidence-based research has shown that both apple cider vinegar and balsamic vinegar can have positive effects on beta-cell function in the pancreas and lower glucose levels in the blood (Seok & Cha, 2012; Siddiqui et al., 2018). There are a couple of different ways that you can include vinegar in your diet to improve your body's blood sugar control. Consider eating salads with apple cider or balsamic vinegar dressing before meals. Ingesting vinegar before meals can reduce the blood sugar spike some diabetics see when eating. Have you tried a shrub?!? A shrub is a vinegar based drink that can be flavored with any fruits or herbs of your choice. You can enjoy a vinegar shrub mixed with sparkling water or alcohol! Another fun way to add vinegar to your diet is to make vinegar gummy bears substituting water with vinegar. Consuming as little as 2T of a vinegar based fire cider before bed is another way to reduce high overnight blood glucose. Adding vinegar to your diet as a way of maintaining healthy endocrine function has never been so easy.

CINNAMON

Cinnamon (*Cinnamomum spp.*) bark has been used to flavor meals and stimulate the appetite for millennia. Research has now shown that consuming cinnamon increases capacity of beta cells in pancreas to produce insulin which reduces blood glucose levels in diabetics (Easley and Horne, 2016). A great way to incorporate cinnamon in your diet is by adding the powdered form to your meals. As little as 1 teaspoon sprinkled on your oatmeal in the morning is powerful enough to maintain blood glucose levels throughout the day. There are a couple of different kinds of cinnamon available and their effects may differ. To learn more about the different types of cinnamon and how you can use it check out this monograph published by the European Medicines Agency: https://www.ema.europa.eu/documents/herbal-monograph/draft-community-herbal-monograph-cinnamomum-verum-j-s-presl-cinnamomum-zeylanicum-nees-cortex_en.pdf

GARLIC

Known to most people for its strong taste and antibiotic properties; this wunderkind herb is also a powerhouse when it comes to anti-glycemic function. Not only has research shown that it can improve insulin and glucose tolerance (Liu et al, 2012)), it can also stimulate the secretion of insulin by the pancreas and increase glucose utilization in the body (Eidi, Eidi, & Esmali, 2005)). I personally put garlic in just about everything from scrambled eggs to chicken soup, but if you're just starting out adding garlic to your cooking can provide such positive effects for diabetics. If you want to avoid the strong smell of raw garlic, you can also try garlic supplements.

CONCLUSION

This white paper has outlined three kitchen herbs that have shown to have antidiabetic effects and improve blood glucose levels. You may already have these herbs at home. If not, you can easily find these herbs as most grocery stores. Making small changes to your diet can be an effective way to maintain good blood sugar levels and improve your overall endocrine function. Happy eating!

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