

Glycemic Response is Improved by Breathing Exercises?

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ABSTRACT

The effects of slow breathing on glycemic control and insulin sensitivity was the subject of the first systematic study of the literature. While several studies have looked at the impact of yoga on people with diabetes, only a handful have focused on the isolation of slow breathing as the primary factor in their involvement. While it's impossible to differentiate yoga's exercise-related effects from its glycemic control effects, there's a lot of evidence that a breathing intervention will improve insulin sensitivity and glycemic control. This happens to be true of both stable and diabetic people, both acutely and chronically. Yoga pranayama and the deep breathing techniques that are central to yoga are a surprisingly low-cost and under-utilized intervention for people suffering from glycemic control and insulin sensitivity issues. To better understand the effect of respiratory regulation on glucose metabolism and insulin response, more research on pranayama and slow breathing manoeuvres is required.

KEYWORDS: Exercises, yoga, Muscle.

INTRODUCTION

Deep breathing exercises are often used as part of conventional yoga exercises aimed at improving brain performance, mindfulness, and stress reduction. Although yoga can be practised in a variety of forms, there are three basic themes that emerge from the diversity: asana, dyana, and pranayama. The word "asana" refers to the postural manipulations and poses that are widely accepted in yoga. The length of an asana posture, its physical strength, the context in which it is done, and the ability of an asana to actively or indirectly change breathing patterns will all affect human physiology. Nindra, Iyengar, Hatha, Shavashana, and Kundalini are among the many yoga subtypes that vary somewhat in how asana, dyana, and pranayama practises are performed, but they all have deliberate manipulations of pranayama exercises as part of their distinct identities. Yoga's meditation techniques, known as pranayama, aim to get the practitioner into the current moment and thereby relieve tension. The study of how yoga breathing exercises affect glycemic response and insulin sensitivity is complicated by the fact that some pranayama are quite complicated whereas others are quite simple. Since the brain is an insulin-sensitive organ, it is damaged by decreased insulin regulation and abnormal glycemic reaction, maintaining insulin and glycemic control is critical for cognitive performance. Furthermore, glycemic regulation is particularly necessary during exercise in insulin-sensitive tissues including skeletal and cardiac muscle. Diabetes is a glycemic regulation abnormality caused by an inability to secrete insulin and reliance on exogenous insulin (type 1) or an inability to respond to

secreted insulin that can lead to insulin dependency (type 2). (type 2). [1-3].

CONCLUSION

With the high cost of treating glycemic reaction and insulin deficiency problems, any minor changes that can be achieved with little to no money should be included in clinical guidelines. There are few studies that isolate the influence of only pranayama or gradual breathing, despite the many studies that show yoga has positive effects for people with diabetes and insulin sensitivity. As part of improved patient-centered and cost-effective diabetes therapy, future studies of yoga effects for communities with diabetes would need to carefully identify their pranayama and better isolate this effect on glycemic response and insulin sensitivity. Furthermore, research focused solely on breathing habits may be especially helpful in understanding the effects of yoga on glucose metabolism.

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Received date: Apr 10, 2021; Accepted date: Apr 21, 2021; Published date: Apr 30, 2021

Citation: Jayaram D. (2021) Device Defects in Whole-Body Vibration Training. *Journal of Yoga & Physical Therapy* 11:344. doi: 10.4172/2472-1115.21.11.344

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