The Breathing App Dx

Partner & Care Provider **Referral Program**

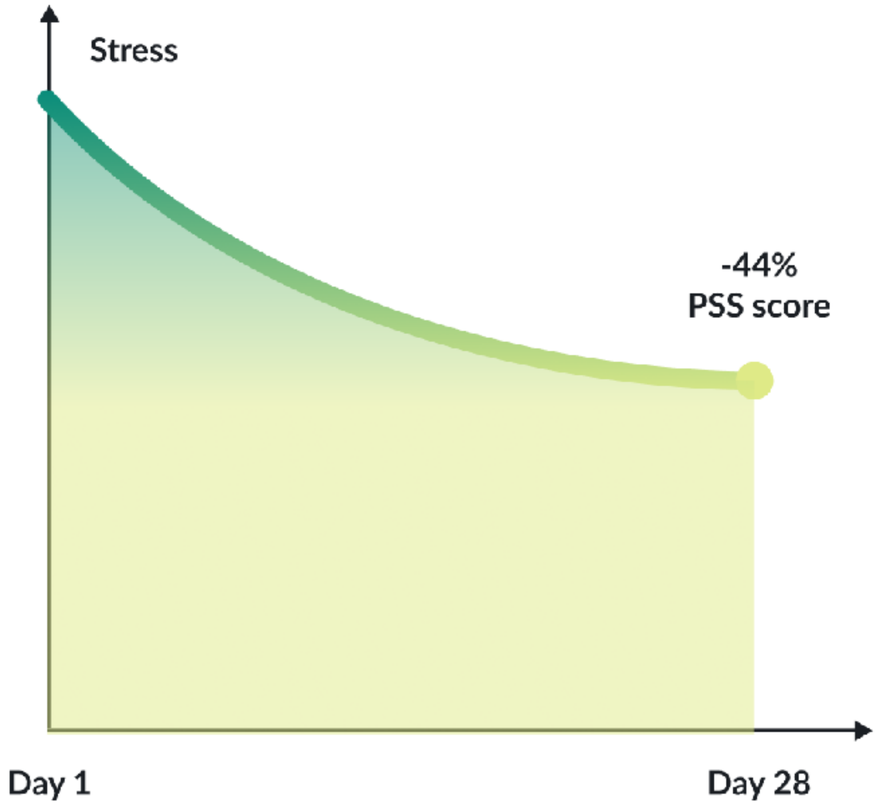
thebreathing.app

Take the Next Step Towards Thorough Diabetes Care

TBA exists to support providers in helping their patients **manage the daily stress** of living with disease. It has been shown conclusively that stress is a risk factor in promoting the symptoms of diabetes and other non-communicable diseases.

NCDs are associated with high and chronic levels of inflammation, and reduction of stress has been shown to have both an **immediate and cumulative effect on reducing inflammation**. Our apps exist exclusively to address this pain point.

Our users showed an overall **44% reduction of stress in 28 days**



What is PSS score?

The Perceived Stress Scale (PSS) is the most widely used psychological instrument for measuring the perception of stress. It is a measure of the degree to which situations in one's life are appraised as stressful.

How does it work?

Slow breathing is the quickest way to “flip the switch” and restore balance to your cardiovascular, autonomic, and respiratory systems. Slow breathing supports the management of stress which can have profound benefits for diabetes symptoms and day-to-day life.

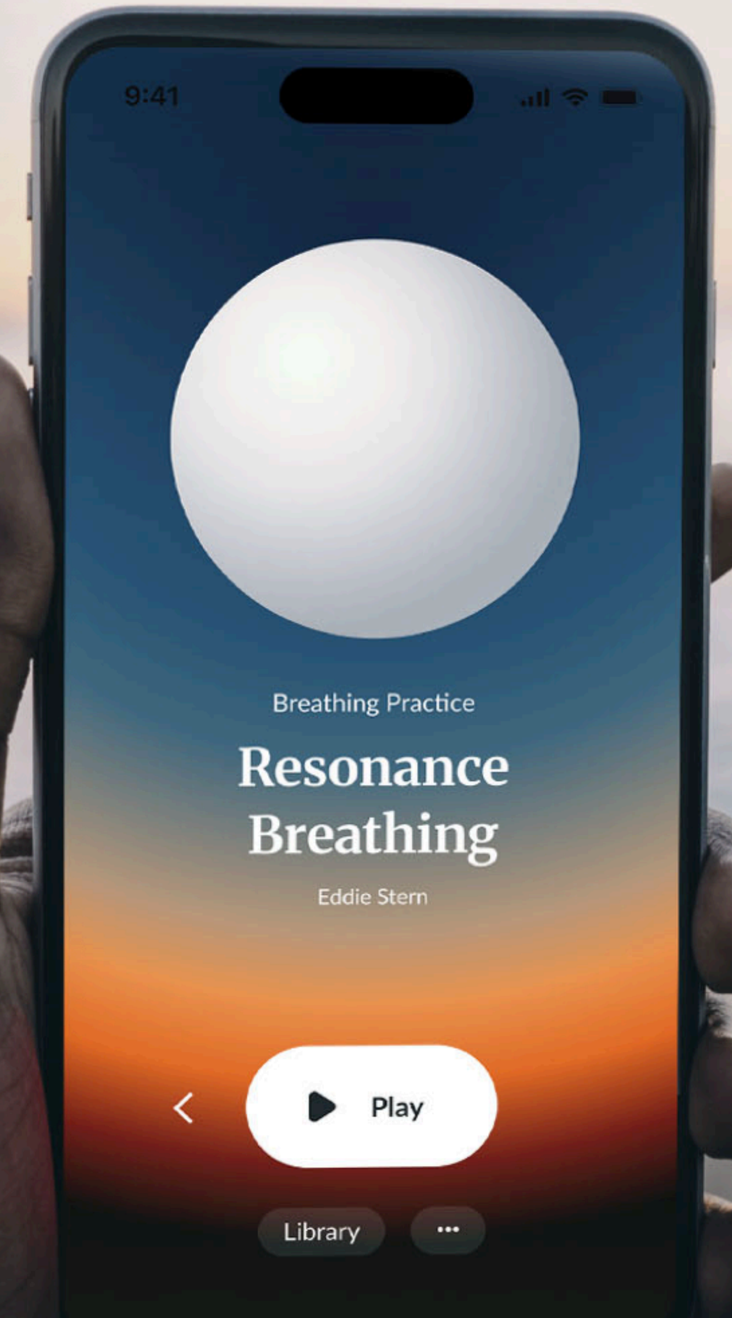
Manage Your Stress Living with Diabetes

The first app specifically made for people living with diabetes to help manage stress levels

- Daily Audio Sessions
- Science-backed Pathway
- Less than 20 min a day

Download on the App Store

GET IT ON Google Play



Meet Instructors of the Diabetes Course

Eddie Stern, MSc Founder & CEO of Breathing App

Eddie Stern is a seasoned entrepreneur and the founder of Breathing App for Diabetes, the first app that helps people with diabetes lower their stress levels. Eddie is an author, lecturer, and certified yoga instructor with over 35 years of experience.

Nick Heath, PhD Head of Research at Breathing App

Dr. Nick Heath has type 1 diabetes and serves as the Head of Research for The Breathing App for Diabetes. Nick holds a Ph.D. in atmospheric science and has spent the past seven years applying his background in science to study the effects of slow breathing on diabetes.

TBA Diabetes **Referral Program**

Once you opt in to our referral program, we will send you an In-Office kit. This kit includes office signage, staff quick start guide, referral QR cards as well as a co-marketing eMail template.

Reach out through mail
partner@thebreathing.app

Receive profits

Our commission structure is valued in tiers running from 10% to 20% payout.

Get special offer for your clients

Customers that enroll through your uniquely trackable QR code will receive the benefit of the first 14 days free, and will receive their 13th month free with the annual subscription

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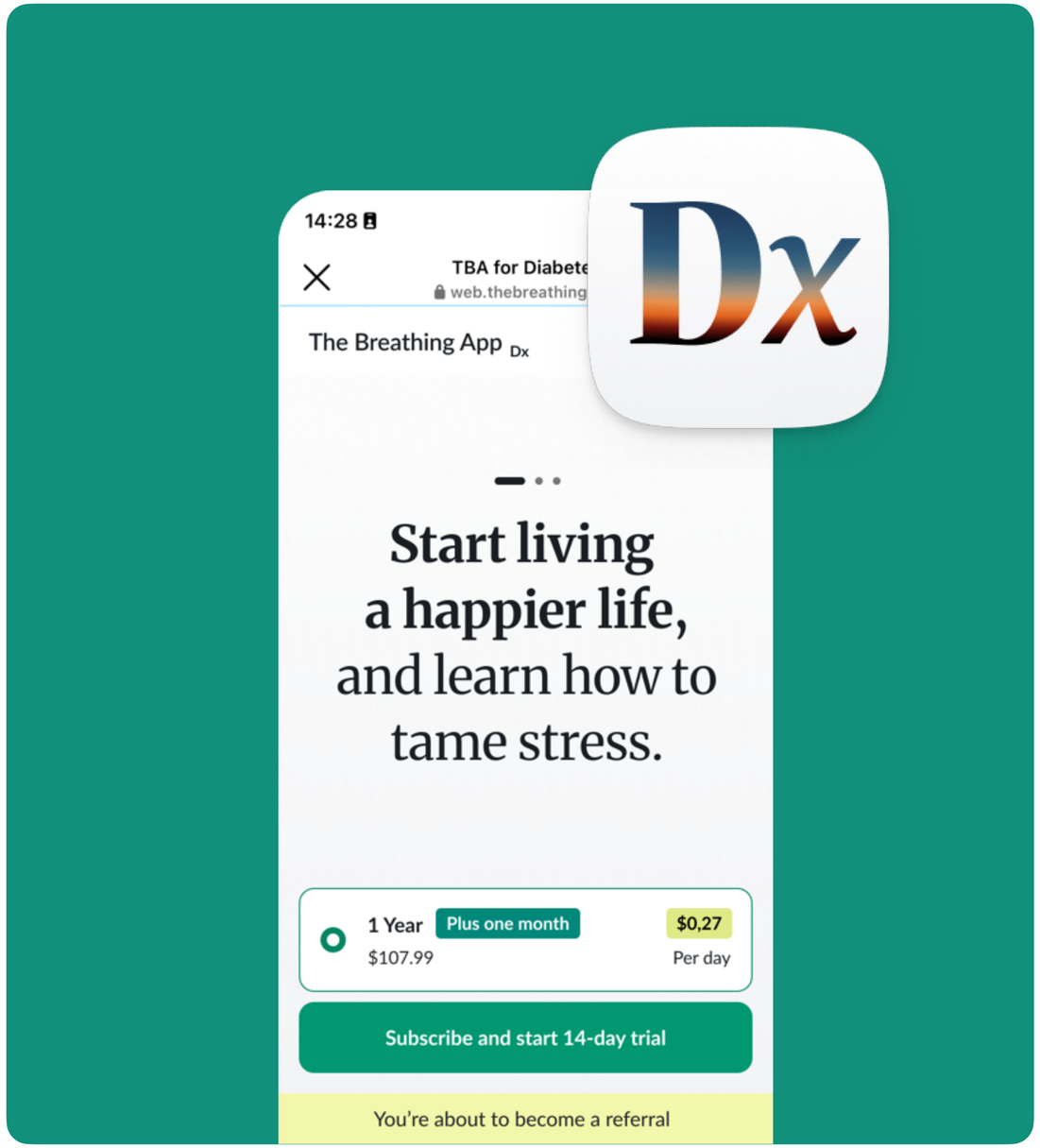

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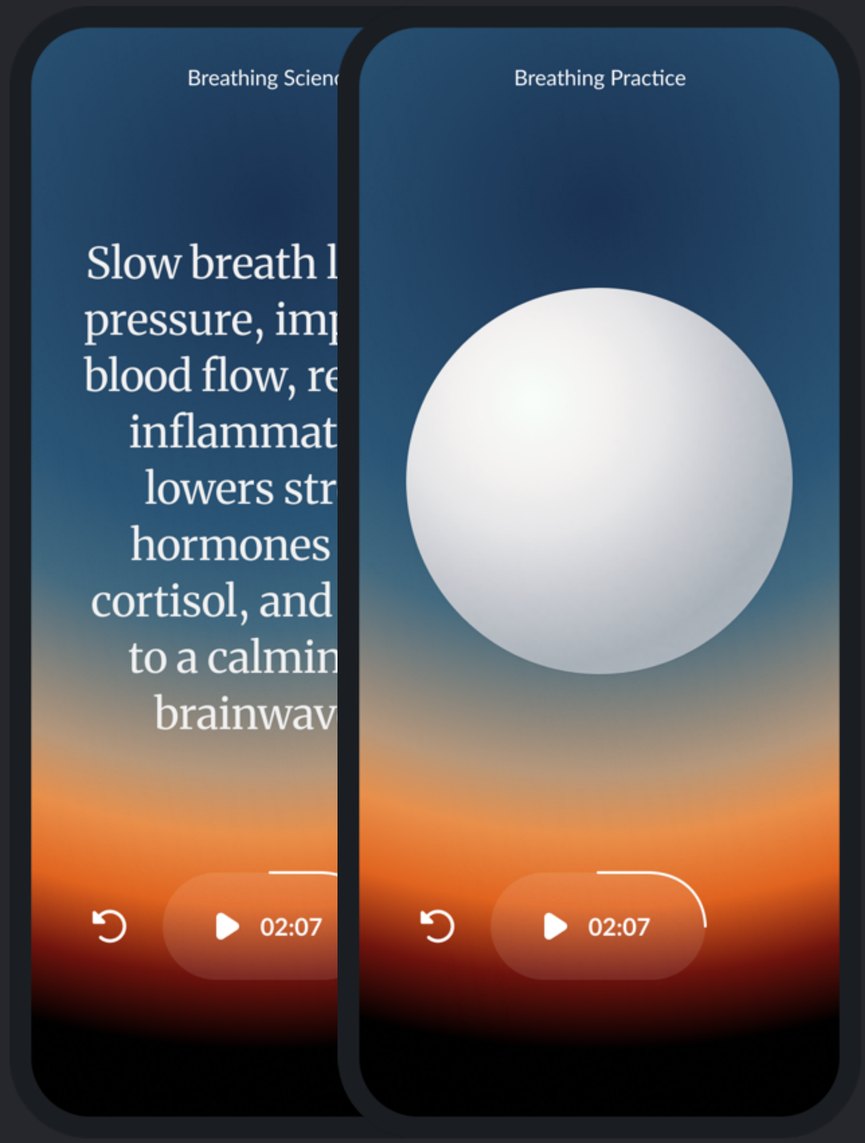
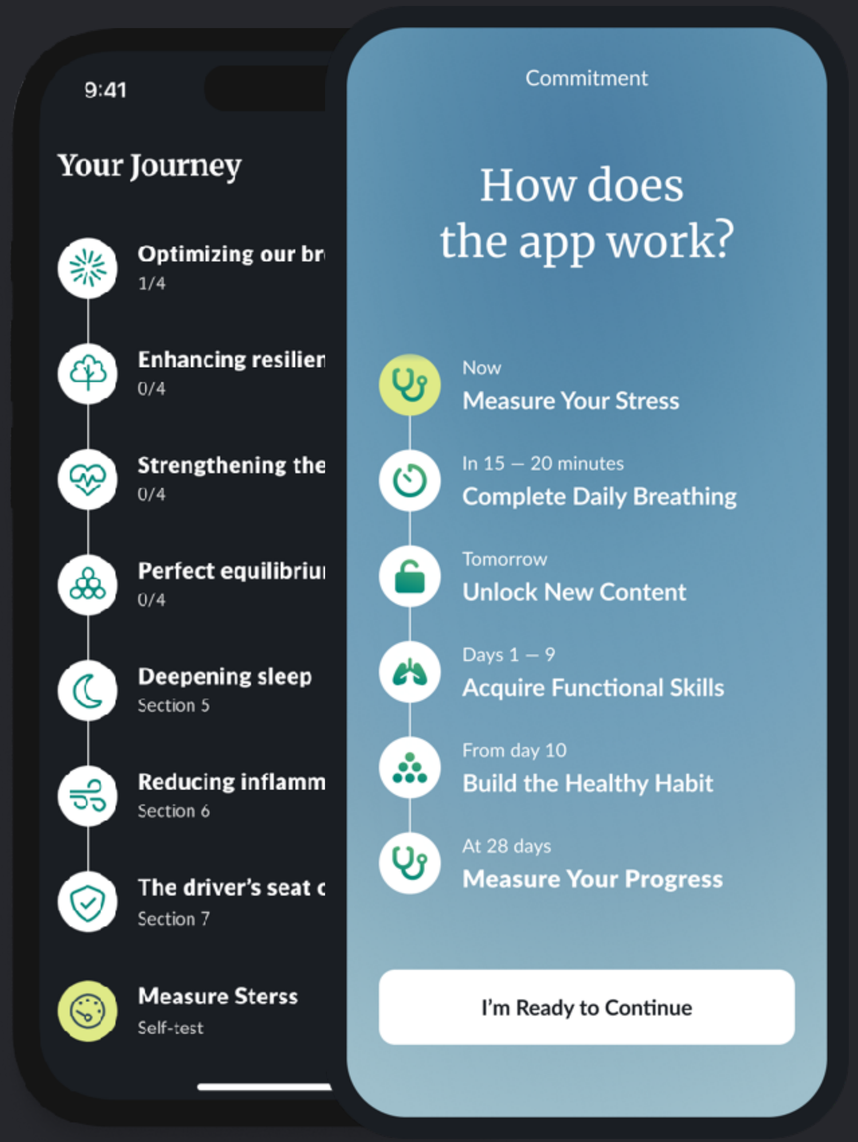
With over 500,000 downloads, we are have shown proof of concept that slow, conscious breathing improves the full spectrum of life

Stop Button for Stress.
Be in control with simple yet effective intervention to improve your mood, energy level and sleep



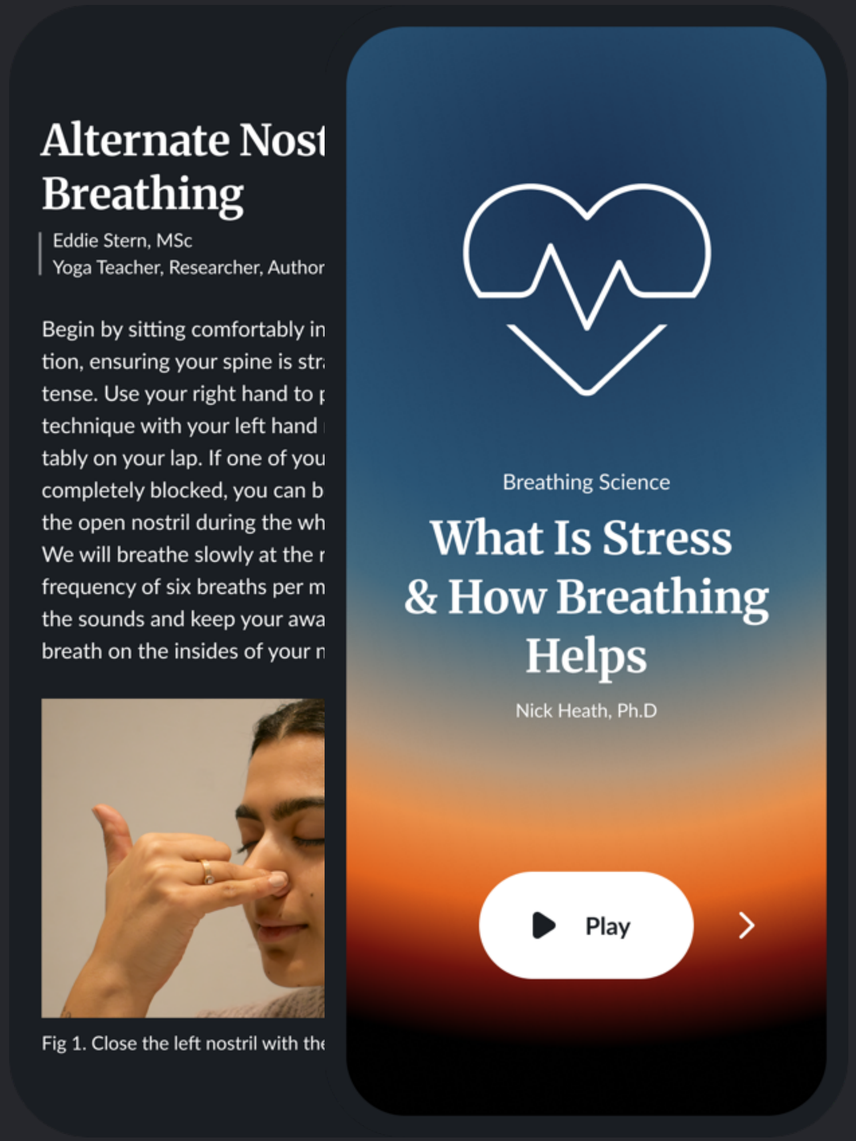


Safe and simple pathway that helps people manage diabetes associated stress, and reliably improves long-term outcomes

Habit Science
Do less to achieve more.
Self-care coaching
empowering you to develop
lasting healthy habits.

Nature Scientific Reports convinced: “Slow breathing could be a simple beneficial intervention in diabetes.”

Bite-sized Education
Learn the science that can help you get your stress under control with a range of easy to understand bite-sized lessons.We won’t offer you 10,000 options to choose from. We provide one, simple, tested intervention to reduce your stress and improve your quality of life.



@thebreathingdiabetic

Why slow breathing benefits diabetes?

Slow breathing is the quickest way to “flip the switch” and restore balance to your cardiovascular, autonomic, and respiratory systems. Slow breathing also helps with stress, anxiety, and panic attacks. **All of these changes have profound benefits for diabetes.**

	Diabetes	Slow Breathing
Heart Rate Variability One way that slow breathing improves cardio-autonomic balance is by increasing heart rate variability (HRV). HRV measures the beat-to-beat variation in heart rate and serves as a general indicator of cardiovascular health. When you breathe at a rate of about 4-6 breaths per minute, HRV increases. These improvements persist if slow breathing is practiced regularly.	↓	↑
Baroreflex Sensitivity BRS measures your heart’s ability to adjust blood pressure in response to changing conditions. It is an early indicator of cardiovascular and autonomic dysfunction. Even two minutes of slow breathing can raise BRS levels to those seen in non-diabetic healthy individuals. Results such as these suggest that **some diabetic complications could be functional and therefore reversible.**	↓	↑
Parasympathetic Nervous System Slow breathing also increases the tone of the parasympathetic (rest & digest) nervous system (PNS). This is especially important for people with diabetes. Due to our fluctuating blood sugars and resting tissue hypoxia, we have an increased sympathetic tone (freeze, fight, or flight). This puts us in a chronic low-grade state of stress. **By activating the PNS, slow breathing helps us restore autonomic balance.**	↓	↑
Arterial Function	↓	↑
Tissue Oxygenation	↓	↑

Science Papers

People with diabetes have autonomic nervous system imbalance.

REFERENCE:
Bianchi L, Porta C, Rinaldi A, Gazzaruso C, Fratino P, DeCata P, Protti P, Paltro R, Bernardi L. Integrated cardiovascular/respiratory control in type 1 diabetes evidences functional imbalance: Possible role of hypoxia. Int J Cardiol. 2017 Oct 1;244:254-259. doi: 10.1016/j.ijcard.2017.06.047. Epub 2017 Jun 15. PMID: 28666602.

Slow breathing increases the tone of the parasympathetic (rest-and-digest) branch of the nervous system, restoring balance to the nervous system in people with diabetes.

REFERENCES:
Esposito P., Mereu R., De Barbieri G., Rampino T., Di Toro A., Groop P.H., Dal Canton A., and L. Bernardi (2016), Trained breathing-induced oxygenation acutely reverses cardiovascular autonomic dysfunction in patients with type 2 diabetes and renal disease, Acta Diabetologica, 53(2), 217 – 226, doi: 10.1007/s00592-015-0765-5.

Bernardi L, Gordin D, Bordino M, Rosengård-Bärlund M, Sandelin A, Forsblom C, Groop PH. Oxygen-induced impairment in arterial function is corrected by slow breathing in patients with type 1 diabetes. Sci Rep. 2017 Jul 20;7(1):6001. doi: 10.1038/s41598-017-04947-4. PMID: 28729675; PMCID: PMC5519543.

Diabetes is associated with reduced blood flow.

REFERENCE:
Donald E McMillan; The Effect of Diabetes on Blood Flow Properties. Diabetes 1 June 1983; 32 (Supplement_2): 56–63. https://doi.org/10.2337/diab.32.2.S56

Slow breathing synchronizes the heart, lungs, and nervous system (a state of "resonance"), which enhances blood flow and allows the body to function efficiently and optimally.

REFERENCE:
Evgeny G. Vaschillo, Bronya Vaschillo, and Paul M. Lehrer, (2006) Characteristics of resonance in heart rate variability stimulated by biofeedback, Applied Psychophysiology and Biofeedback, 31 (2), 129 – 142, DOI: 10.1007/s10484-006-9009-3.

People with diabetes suffer from higher rates of stress & anxiety.

REFERENCE:
Li, C., Barker, L., Ford, E.S., Zhang, X., Strine, T.W. and Mokdad, A.H. (2008), Diabetes and anxiety in US adults: findings from the 2006 Behavioral Risk Factor

Surveillance System. Diabetic Medicine, 25: 878-881. https://doi.org/10.1111/j.1464-5491.2008.02477.x
Grigsby AB, Anderson RJ, Freedland KE, Clouse RE, Lustman PJ. Prevalence of anxiety in adults with diabetes: a systematic review. J Psychosom Res. 2002 Dec;53(6):1053-60. doi: 10.1016/s0022-3999(02)00417-8. PMID: 12479986.

Smith KJ, Béland M, Clyde M, Gariépy G, Pagé V, Badawi G, Rabasa-Lhoret R, Schmitz N. Association of diabetes with anxiety: a systematic review and meta-analysis. J Psychosom Res. 2013 Feb;74(2):89-99. doi: 10.1016/j.jpsychores.2012.11.013. Epub 2012 Dec 28. PMID: 23332522.

By stimulating the parasympathetic nervous system, slow breathing reduces stress and anxiety in as little as 5 minutes.

REFERENCE (Nature Scientific Reports):
Magnon V, Dutheil F, Vallet GT. Benefits from one session of deep and slow breathing on vagal tone and anxiety in young and older adults. Sci Rep. 2021 Sep 29;11(1):19267. doi: 10.1038/s41598-021-98736-9. PMID: 34588511; PMCID: PMC8481564.

People with diabetes face daily emotional stressors associated with the disease.

REFERENCE:
Skinner TC, Joensen L, Parkin T. Twenty-five years of diabetes distress research. Diabet Med. 2020 Mar;37(3):393-400. doi: 10.1111/dme.14157. Epub 2019 Oct 31. PMID: 31638279.

Slow breathing boosts heart rate variability (HRV) and mental resiliency, allowing people with diabetes to handle and bounce back

REFERENCES:
Laborde S, Allen MS, Borges U, Dosseville F, Hosang TJ, Iskra M, Mosley E, Salvotti C, Spolverato L, Zammit N, Javelle F. Effects of voluntary slow breathing on heart rate and heart rate variability: A systematic review and a meta-analysis. Neurosci Biobehav Rev. 2022 Jul;138:104711. doi: 10.1016/j.neubiorev.2022.104711. Epub 2022 May 24. PMID: 35623448.

Perna G, Riva A, Defillo A, Sangiorgio E, Nobile M, Caldirola D. Heart rate variability: Can it serve as a marker of mental health resilience?: Special Section on "Translational and Neuroscience Studies in Affective Disorders" Section Editor, Maria Nobile MD, PhD. J Affect Disord. 2020 Feb 15;263:754-761. doi: 10.1016/j.jad.2019.10.017. Epub 2019 Oct 12. PMID: 31630828.

Diabetes is associated with chronic inflammation.

REFERENCE:
Domingueti CP, Dusse LM, Carvalho Md, de Sousa LP, Gomes KB, Fernandes AP. Diabetes mellitus: The linkage between oxidative stress, inflammation, hypercoagulability and vascular complications. J Diabetes Complications. 2016 May-Jun;30(4):738-45. doi: 10.1016/j.jdiacomp.2015.12.018. Epub 2015 Dec 18. PMID: 26781070.

Through stimulation of the vagus nerve and activation of the "relaxation response," slow breathing reduces inflammation and oxidative stress.

REFERENCE:
Li TT, Wang HY, Zhang H, Zhang PP, Zhang MC, Feng HY, Duan XY, Liu WB, Wang XW, Sun ZG. Effect of breathing exercises on oxidative stress biomarkers in humans: A systematic review and meta-analysis. Front Med (Lausanne). 2023 Apr 5;10:1121036. doi: 10.3389/fmed.2023.1121036. PMID: 37122322; PMCID: PMC10132211.

Bhasin MK, Dusek JA, Chang BH, Joseph MG, Denninger JW, Fricchione GL, Benson H, Libermann TA. Relaxation response induces temporal transcriptome changes in energy metabolism, insulin secretion and inflammatory pathways. PLoS One. 2013 May 1;8(5):e62817. doi: 10.1371/journal.pone.0062817. Erratum in: PLoS One. 2017 Feb 21;12 (2):e0172873. PMID: 23650531; PMCID: PMC3641112.

Diabetic complications are partially caused by lack of oxygen at the cellular level (tissue hypoxia).

REFERENCE:
Bianchi L, Porta C, Rinaldi A, Gazzaruso C, Fratino P, DeCata P, Protti P, Paltro R, Bernardi L. Integrated cardiovascular/respiratory control in type 1 diabetes evidences functional imbalance: Possible role of hypoxia. Int J Cardiol. 2017 Oct 1;244:254-259. doi: 10.1016/j.ijcard.2017.06.047. Epub 2017 Jun 15. PMID: 28666602.

Slow nasal breathing improves blood flow and harnesses nitric oxide, increasing oxygen uptake in the blood and improving whole body oxygenation.

REFERENCE:
Sánchez Crespo A, Hallberg J, Lundberg JO, Lindahl SG, Jacobsson H, Weitzberg E, Nyrén S. Nasal nitric oxide and regulation of human pulmonary blood flow in the upright position. J Appl Physiol. 2010;108:181–188.
Lundberg JO, Settergren G, Gelinder S, Lundberg JM, Alving K, Weitzberg E. Inhalation of nasally derived nitric oxide modulates pulmonary function in humans. Acta Physiol Scand. 1996 Dec;158(4):343-7. doi: 10.1046/j.1365-201X.1996.557321000.x. PMID: 8971255.

Team

Eddie Stern, MsC, CYT Yoga Teacher, Researcher, Author

- NYC based
- 35 years teaching experience
- Peer-reviewed publications
- Founder of Ashtanga Yoga New York

Sergey Varichev
Software Engineer and Technical Enthusiast

- Prague
- 15 years of career
- scaled companies from 3 person to 35 000 employees
- passion for yoga, neuroscience and psychology

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Experience Designer and Consultant

- Amsterdam
- 12 years experience
- ran consulting services for products with multi-million audience
- passionate about psychology and physical practices

Nick Heath, Ph.D.
Breathing Researcher and Coach

- Florida based
- Diabetes Course Author
- spent the last 5 years studying, teaching, and applying breathing techniques
- Oxygen Advantage® coach
- member of the Global Wellness BREATHE Initiative

Dilesh Mehta
Serial Entrepreneur, Philanthropist

- London
- Successful fragrance entrepreneur with brand franchise expertise
- Committed to social responsibility through the BC Mehta Trust
- Mentors start-ups and serves on a fashion line board

Jennifer Eichermueller, MSL Growth & Experience Marketing

- Arizona based
- 15 years health care and patient engagement experience
- Core focus on business optimization through enhanced marketing practices
- Passion for improving the overall health & wellness of the most vulnerable

Thank You

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