



CJC

Canadian Journal
of Cardiology

NEWS RELEASE

UNDER EMBARGO UNTIL DECEMBER 8, 2022, 12:01 AM ET

Media contact:

Eileen Leahy

Elsevier

+1 732 238 3628

cjcmedia@elsevier.com

Adding yoga to regular exercise improves cardiovascular health and wellbeing

A pilot study in patients with hypertension concludes that adding yoga to regular exercise is better than stretch exercises alone, report investigators in the Canadian Journal of Cardiology

Philadelphia, December 8, 2022 – A three-month [pilot study](#) of patients with hypertension appearing in the [Canadian Journal of Cardiology](#), published by Elsevier, demonstrates that adding yoga to a regular exercise training regimen supports cardiovascular health and wellbeing and is more effective than stretching exercises. Incorporation of yoga reduced systolic blood pressure and resting heart rate and improved 10-year cardiovascular risk.

Yoga is part of spiritual and exercise practices for millions of people worldwide. With yoga practice becoming a widely accepted form of exercise, the body of yoga research is growing. It is a multifaceted lifestyle activity that can positively enhance cardiovascular health and wellbeing. Physical exercises such as stretching exercises and the physical components of yoga practices have several similarities, but also important differences.

“The aim of this pilot study was to determine whether the addition of yoga to a regular exercise training regimen reduces cardiovascular risk,” explained lead investigator Paul Poirier, MD, PhD, Quebec Heart and Lung Institute – Laval University, and Faculty of Pharmacy, Laval University, Quebec, Canada.

“While there is some evidence that yoga interventions and exercise have equal and/or superior cardiovascular outcomes, there is considerable variability in yoga types, components, frequency, session length, duration, and intensity. We sought to apply a rigorous scientific approach to identify cardiovascular risk factors for which yoga is beneficial for at-risk patients and ways it could be applied in a healthcare setting such as a primary prevention program.”

Investigators recruited 60 individuals with previously diagnosed high blood pressure and metabolic syndrome for an exercise training program. Over the 3-month intervention regimen, participants were divided into 2 groups, which performed 15 minutes of either structured yoga or stretching in addition to 30 minutes of aerobic exercise training 5 times weekly. Blood pressure, anthropometry, high-sensitivity C-reactive protein (hs-CRP), glucose and lipids levels as well as the Framingham and Reynolds Risk Scores were measured. At baseline, there was no difference between groups in age, sex, smoking rates,

body mass index (BMI), resting systolic and diastolic blood pressure, resting heart rate and pulse pressure.



Caption: A pilot study in patients with hypertension concludes that adding yoga to regular exercise is better than stretch exercises alone, report investigators in the *Canadian Journal of Cardiology* (iStock.com/Bluberries).

After 3 months, there was a decrease in resting systolic and diastolic blood pressure, mean arterial blood pressure and heart rate in both groups. However, systolic blood pressure was reduced by 10 mmHg with yoga vs 4 mmHg with stretching. The yoga approach also reduced resting heart rate and 10-year cardiovascular risk assessed using Reynold's Risk score.

While yoga has been shown to benefit hypertensive patients, the exact mechanism underlying this positive effect is not fully understood. This pilot randomized study shows that its benefits cannot be simply attributed to stretching alone.

“This study provides evidence for an additional non-pharmacologic therapy option for cardiovascular risk reduction and blood pressure control in patients with high blood pressure, in the setting of a primary prevention exercise program,” noted Dr. Poirier. “As observed in several studies, we recommend that patients try to find exercise and stress relief for the management of hypertension and cardiovascular disease in whatever form they find most appealing. Our study shows that structured yoga practices can be a healthier addition to aerobic exercise than simply muscle stretching.”

--

Notes for editors

The article is “Impact of Yoga on Global Cardiovascular Risk as an Add-on to a Regular Exercise Regimen in Patients with Hypertension,” by Ashok Pandey, Avinash Pandey, MD, A. Shekhar Pandey, MD, Alis Bonsignore, PhD, Audrey Auclair, PhD, and Paul Poirier, MD, PhD (<https://doi.org/10.1016/j.cjca.2022.09.019>). The article appears online ahead of the *Canadian Journal of Cardiology*, volume 39 issue 1 (January 2023) published by [Elsevier](#).

Full text of the article is available to credentialed journalists upon request. Contact Eileen Leahy at +1 732 238 3628 or cjcmedia@elsevier.com to obtain copies. Journalists wishing to speak to the study's authors should contact Joël Clément, Communications, Quebec Heart and Lung Institute – Laval University, at +1

418 656 4932 or joel.clement@ssss.gouv.qc.ca.

About the *Canadian Journal of Cardiology*

The [Canadian Journal of Cardiology](#) is the official journal of the [Canadian Cardiovascular Society](#). It is a vehicle for the international dissemination of new knowledge in cardiology and cardiovascular science, particularly serving as a major venue for the results of Canadian cardiovascular research and Society guidelines. The journal publishes original reports of clinical and basic research relevant to cardiovascular medicine as well as editorials, review articles, case reports, and papers on health outcomes, policy research, ethics, medical history, and political issues affecting practice. www.onlinecjc.ca

About the Editor-in-Chief

Editor-in-Chief Stanley Nattel, MD, is Paul-David Chair in Cardiovascular Electrophysiology and Professor of Medicine at the University of Montreal and Director of the Electrophysiology Research Program at the Montreal Heart Institute Research Center.

About the Canadian Cardiovascular Society (CCS)

The [CCS](#) is the national voice for cardiovascular clinicians and scientists, representing more than 2,300 cardiologists, cardiac surgeons and other heart health specialists across Canada. We advance heart health for all by setting standards for excellence in heart health and care, building the knowledge and expertise of the heart team, and influencing policy and advocating for the heart health of all Canadians. For further information on the CCS visit <https://www.ccs.ca/en>.

About Quebec Heart and Lung Institute

Every year, 15,079 people are hospitalized and 131,189 visits were made on an outpatient basis for 45,088 users. The service area is more than two million people, which represents approximately 30% of Quebec's population. Affiliated with the Laval University, the Institute counts on the cooperation and the dedication of over 3,500 employees, physicians, professionals, researchers, managers as well as volunteers for providing quality care and services to both hospitalized and outpatient clientele. In particular, the Institute offers programs of specialized and ultraspecialized care and services to treat cardiovascular and respiratory diseases as well as those related to obesity. The Institute's physicians as well as health professionals have extensive expertise and contribute advancing the science of medicine. It also has as its mission to assess technologies and intervention methods in health. The Institute's Research Centre is recognized internationally for the quality of its science. <https://iucpq.qc.ca>

About Cambridge Cardiac Care Centre

As the designated preferred provider of outpatient prevention and rehabilitation services for Cambridge Memorial Hospital and the region of Waterloo Ontario, Cambridge Cardiac Care is a part of a broadened circle of care, serving patients in the immediate community and from all across southwestern Ontario providing services to over 65,000 registered patients. Our unique, full-service, non-invasive cardiology facility was built on a commitment to lessen the burden of heart disease on the community at large. We follow through with that promise by ensuring reduced testing and consultation wait-times, investing in resources to expand cardiac rehabilitation, community outreach prevention programs and spearheading onsite clinical research that continually advances the level of care we can provide. <https://cambridgecardiaccare.com>

About Elsevier

As a global leader in information and analytics, [Elsevier](#) helps researchers and healthcare professionals advance science and improve health outcomes for the benefit of society. We do this by facilitating insights and critical decision-making for customers across the global research and health ecosystems.

In everything we publish, we uphold the highest standards of quality and integrity. We bring that same rigor to our information analytics solutions for researchers, health professionals, institutions and funders.

Elsevier employs 8,700 people worldwide. We have supported the work of our research and health partners for more than 140 years. Growing from our roots in publishing, we offer knowledge and valuable analytics that help our users make breakthroughs and drive societal progress. Digital solutions such as [ScienceDirect](#), [Scopus](#), [SciVal](#), [ClinicalKey](#) and [Sherpath](#) support strategic [research management](#), [R&D performance](#), [clinical decision support](#), and [health education](#). Researchers and healthcare professionals rely on our over 2,700 digitized journals, including [The Lancet](#) and [Cell](#); our over 43,000 eBook titles; and our iconic reference works, such as *Gray's Anatomy*. With the [Elsevier Foundation](#) and our external [Inclusion & Diversity Advisory Board](#), we work in partnership with diverse stakeholders to advance [inclusion and diversity](#) in science, research and healthcare in developing countries and around the world.

Elsevier is part of [RELX](#), a global provider of information-based analytics and decision tools for professional and business customers. www.elsevier.com