

**VALIDATED BLOOD PRESSURE
MONITORS:
*THE CASE TO BE INCLUDED AS A
MEDICAL EXPENSE***

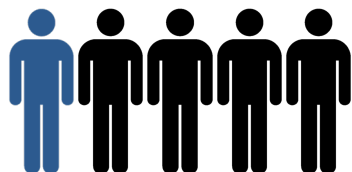


A proposal for consideration by the National Revenue
Minister & the Canadian Revenue Agency

November 17th 2023

1: INTRODUCTION TO HYPERTENSION (HIGH BLOOD PRESSURE)

Hypertension is IMPORTANT.



1 in 5 deaths¹

Leading cause of cardiovascular mortality¹

Leading cause of heart attacks and stroke²

2nd largest cause for chronic kidney disease³

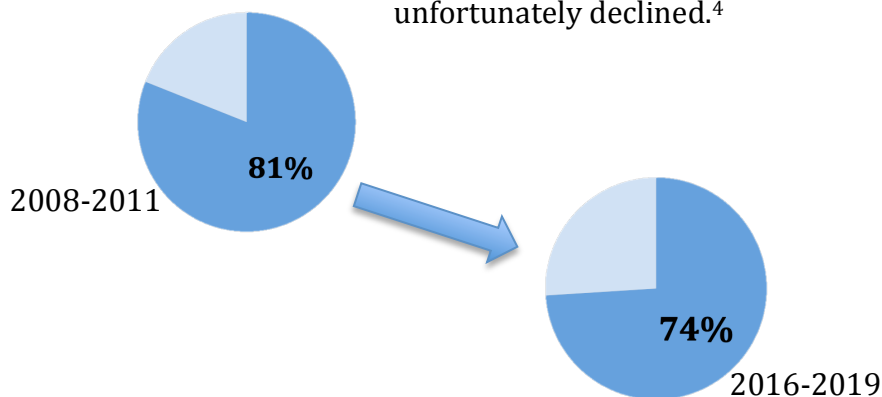
Hypertension is COMMON.

5.9 Million

Canadians have hypertension
(22% of individuals aged 20-79)⁴

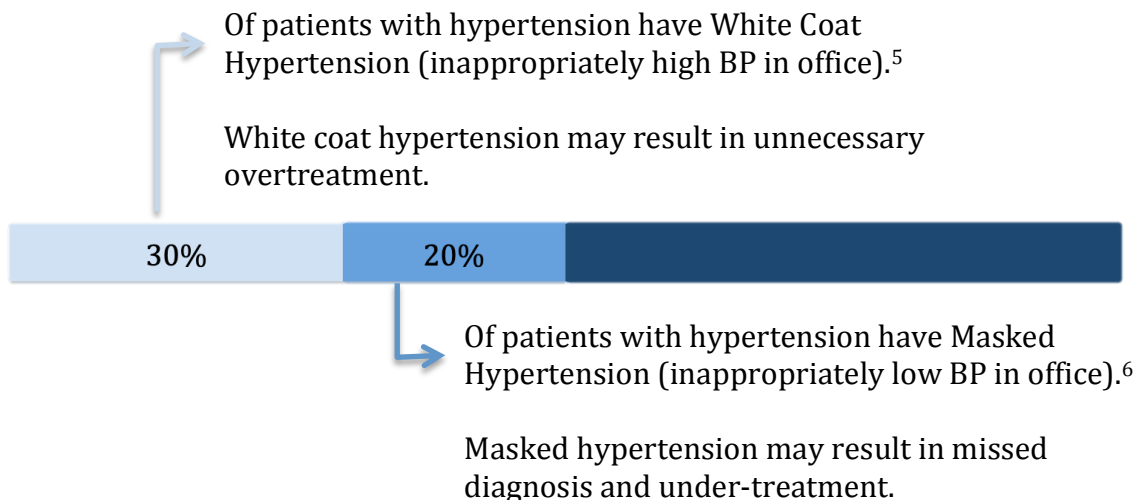
Hypertension is UNDER MANAGED.

The percentage of hypertensive individuals on treatment has unfortunately declined.⁴



2: BLOOD PRESSURE MEASUREMENT

Blood pressure in a physician's office or hospital can be INACCURATE.



Out-of-office blood pressure measurement is therefore ESSENTIAL.

The two types of out of-office blood pressure tests are: ambulatory blood pressure monitor and home blood pressure monitoring.

Preferred DIAGNOSTIC test: Ambulatory Blood Pressure Monitor

Ambulatory blood pressure monitoring (ABPM) involves patients wearing a blood pressure cuff for 24 hours with blood pressure serially measured every 20-30 minutes. This is the preferred method of diagnosing hypertension according to Hypertension Canada, the American Heart Association, and the European Society of Hypertension, as it predicts cardiovascular mortality.⁷⁻¹⁰

Preferred MONITORING test: Home Blood Pressure Monitoring

Home blood pressure monitoring (HBPM) involves patients self-checking their blood pressure at home. It is an accepted alternative for diagnosis if ABPM is unavailable or not tolerated.⁷ It is also the typical method of ongoing monitoring, according to Hypertension Canada, the American Heart Association, and the European Society of Hypertension.⁷⁻⁹

3: FINANCIAL BARRIERS TO HOME BLOOD PRESSURE MONITORING

\$60-\$150

- Is the typical cost of a home blood pressure monitor
- Is paid out-of-pocket, in Canada
- Is paid without government reimbursement, because it is not reimbursed by provincial health plans
- Is not eligible for a tax benefit (i.e. deduction or credit)

Why is there no tax benefit for home blood pressure monitors?

The Canadian Revenue Agency (CRA) prohibits home blood pressure monitors from being listed a medical expense.¹² Similar devices that are listed by the CRA as medical expenses include oxygen, infusion pumps, injection pens, and blood coagulation monitors.¹²

What is the downside of the CRA not listing blood pressure monitors as a medical expense?

This prohibition means self-employed individuals do not obtain a tax benefit for this healthcare-related expense. Similarly, employees of corporations cannot use health-spending accounts to fund the purchase of a home blood pressure monitor.¹³

Is it different in the United States?

Yes. The U.S. Internal Revenue Service lists diagnostic devices, such as blood pressure monitors, as a category of medical expenses.¹⁴ The CRA's prohibition on blood pressure monitors being classified as a medical expense worsens the financial barriers to accessing effective hypertension care in Canada.

4: OUR PROPOSAL & POSITION STATEMENT

Who are “we”?

We are a team of Hypertension specialists, from various Canadian institutions and organizations. The full list of sponsors is below.

What is our position?

We urge the Canada Revenue Agency (CRA) to formally list blood pressure monitors, which are clinically validated, as a Medical Expense.

The formal list of medical expenses listed by the CRA was last published in 2022. We are urging for blood pressure monitors to be included in the next revision of this list.¹²

We believe this should be limited to blood pressure monitors that are clinically validated by either:

- Hypertension Canada (<https://hypertension.ca/bpdevices>), or
- U.S Blood Pressure Validated device listing (<https://www.validatebp.org/>)

Why?

Home blood pressure monitors (HBPM) are essential to facilitating home blood pressure monitoring, which as described above are critical to hypertension care. HBPM is more widely accessible than other forms of out-of-office blood pressure, like ABPM, and enable care in remote/rural populations. Finally, HBPM increases health literacy among patients, by engaging them in their own healthcare.

Listing these monitors as a CRA as a medical expense would create a tax incentive and improve uptake of out-of-office blood pressure monitors, particularly for individuals of lower and middle income. Presently, individuals of lower income more likely to have untreated high blood pressure.¹⁵ This raises concern surrounding the equity of Canadian healthcare.

The proposed tax benefit for out-of-office blood pressure monitors would reduce, but admittedly not eliminate, financial barriers to accessing hypertension care. We believe it is the first step in the right direction.

REFERENCES

1. Danaei G, et al. The preventable causes of death in the United States: comparative risk assessment of dietary, lifestyle, and metabolic risk factors. *PLoS Med* 2009;6(4):e1000058. doi: 10.1371/journal.pmed.1000058.
2. Centers for Disease Control and Prevention. Heart Disease and Stroke. *National Center for Chronic Disease Prevention and Health Promotion* 2022. <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/heart-disease-stroke.htm>.
3. Kovesdy CP. Epidemiology of chronic kidney disease: an update 2022. *Kidney Int Suppl* 2022;12(1):7-11. doi: [10.1016/j.kisu.2021.11.003](https://doi.org/10.1016/j.kisu.2021.11.003).
4. Statistics Canada. Table 13-10-0384-01. Hypertension prevalence, awareness, treatment and control, combined cycles, by age group and sex, Canada (excluding territories). doi: <https://doi.org/10.25318/1310038401-eng>.
5. Franklin SS, et al. White-Coat Hypertension. New Insights from Recent Studies. *Hypertension* 2013;62(6):982-987. doi: 10.1161/HYPERTENSIONAHA.113.01275.
6. Andalib A, et al. Determinants of masked hypertension in hypertensive patients treated in a primary care setting. *Intern Med J* 2012;42(3):260-266. doi: 10.1111/j.1445-5994.2010.02407.x
7. Rabi DM, et al. Hypertension Canada's 2020 Comprehensive Guidelines for the Prevention, Diagnosis, Risk Assessment, and Treatment of Hypertension in Adults and Children. *Canadian Journal of Cardiology* 2020;36:596-624. doi: <https://doi.org/10.1016/j.cjca.2020.02.086>
8. Whelton PK, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults. *Hypertension*. 2018;71:e13–e115. DOI: 10.1161/ HYP.0000000000000065.
9. Stergiou GS, et al. 2021 European Society of Hypertension practice guidelines for office and out-of-office blood pressure measurement. *Journal of Hypertension* 2021;39(7):1293-1302. DOI: 10.1097/HJH.0000000000002843.
10. Piper MA, et al. Diagnostic and Predictive Accuracy of Blood Pressure Screening Methods With Consideration of Rescreening Intervals: A Systematic Review for the U.S. Preventive Services Task Force. *Ann Intern Med* 2015;162(3):192-204. doi: 10.7326/M14-1539.
11. Hypertension Canada. Blood Pressure Devices. Date of access: April 03, 2023. URL: <https://hypertension.ca/bpdevices>.
12. Government of Canada. Lines 33099 and 33199 – Eligible medical expenses you can claim on your tax return. Last modified: January 24, 2023. Date of access: April 03, 2023. URL: <https://www.canada.ca/en/revenue-agency/services/tax/individuals/topics/about-your-tax-return/tax-return/completing-a-tax-return/deductions-credits-expenses/lines-33099-33199-eligible-medical-expenses-you-claim-on-your-tax-return.html>.
13. Internal Revenue Service. Publication 502, Medical and Dental Expenses. Last reviewed: February 17, 2023. Date of access: April 03, 2023. URL: <https://www.irs.gov/forms-pubs/about-publication-502>.
14. Manulife. Information about the Health Care Spending Account (HCSA). Date of access: April 03, 2023. URL: <https://www.manulife.ca/personal/support/group-plans/group-benefits/health-care-spending-account-hcsa.html>.
15. Gee ME, et al. Factors associated with lack of awareness and uncontrolled high blood pressure among Canadian adults with hypertension. *Canadian Journal of Cardiology* 2012;28(3):375-382. doi: 10.1016/j.cjca.2011.12.012

INSTITUTIONAL SIGNATORIES OF THIS POSITION STATEMENT



*Hypertension Dyslipidemia Clinic
University of Alberta
Edmonton, AB, Canada*



*Hypertension Clinic
St. Paul's Hospital
Vancouver, BC, Canada*



*Division of Nephrology
Sunnybrook Health Sciences Centre
Toronto, ON, Canada*



*Hypertension Clinic
Vancouver General Hospital
Vancouver, BC, Canada*



*Hypertension Program
The Ottawa Hospital
Ottawa, ON, Canada*



*Division of Nephrology
University of Toronto
Toronto, ON, Canada*



Hypertension Clinic
Royal Columbian Hospital
New Westminster, BC, Canada



HER-Heart
The Hypertensive Disorders of
Pregnancy Educational Program



C-CHANGE
The Canadian Cardiovascular Harmonized
National Guideline Endeavour



Canadian
Nurses
Association



Association des
infirmières et infirmiers
du Canada



Canadian
Council of
Cardiovascular
Nurses

Conseil canadien
des infirmières et
infirmiers en soins
cardiovasculaires

™The heart and / Icon on its own and the heart and / Icon followed by another icon or words are trademarks of the Heart and Stroke Foundation of Canada used under license.

INDIVIDUAL SIGNATORIES OF THIS POSITION STATEMENT

Dr. Sachin V. Pasricha, MD, FRCPC (candidate), ABIM (Lead Author)
Resident Physician, University of Toronto Internal Medicine

Dr. Lisa Dubrofsky, MDCM, FRCPC, FASH
Staff Physician, Hypertension Clinic, Women's College Hospital
Assistant Professor, University of Toronto
Certified Hypertension Specialist, American Society of Hypertension

Dr. Sheldon Tobe, MD, MScCH (HPTE), FRCPC, FACP, FASH
Staff Physician, Sunnybrook Health Sciences Centre
HSF/NOSM Chair in Aboriginal and Rural Health Research
Professor, University of Toronto & Northern Ontario School of Medicine

Dr. John S. Floras, MD, FRCPC, DPhil
Cardiologist and Deputy Physician-in-Chief (Research), Mount Sinai Hospital
Canada Research Chair (2004-2018), Integrative Cardiovascular Biology
Past President, Canadian Hypertension Society
Fellow, American Heart Association Hypertension Council
Professor, University of Toronto

Dr. Jennifer Ringrose, MD, FRCPC, MSc
Co-Director, Hypertension Dyslipidemia Clinic, University of Alberta
Associate Professor, University of Alberta
Divisional Director, General Internal Medicine, University of Alberta

Dr. Raj Padwal, MD, FRCPC, MSc
Physician, Hypertension Dyslipidemia Clinic, University of Alberta
Ex-chair, Hypertension Canada Clinical Practice Guidelines
Member, Sphygmomanometer committee, International Standards Organization

Dr. Nadia Khan, MD, FRCPC, MSc
Co-Director, Hypertension Clinic, St. Paul's Hospital
Professor & Head of General Internal Medicine Division, University of British Columbia
Immediate Past President, Hypertension Canada

Dr. Paula Harvey, BMBS, FRACP, PhD
Head, Department of Medicine, Women's College Hospital
Director, Dysautonomia and Complex Hypertension Clinic, Women's College Hospital
Director, Cardiovascular Research Program, Women's College Hospital
F.M. Hill Chair in Women's Academic Medicine
Associate Professor, University of Toronto

Dr. Ernesto L. Schiffrin, C.M., MD, PhD, FRSC, FRCPC, FACP
Physician-in-Chief, Sir Mortimer B. Davis-Jewish General Hospital
Hypertension and Vascular Research Unit, Lady Davis Institute for Medical Research
Distinguished James McGill Professor and Associate Chair, Department of Medicine, McGill University
Editor-in-Chief, The American Journal of Hypertension
Past President, Hypertension Canada
Former President, International Society of Hypertension

Dr. Janusz Kaczorowski, PhD
Professor and Research Director
Docteur Sadok Besrouer Chair in Family Medicine
GSK Chair in Optimal Management of Chronic Disease
CIHR-ICRH/Heart & Stroke/Hypertension Canada Chair in prevention and control of hypertension
Department of Family and Emergency Medicine
University of Montreal and University of Montreal Hospital Research Centre (CRCHUM)

Dr. Norm Campbell CM, MD, DSc (hon), FRCPC
Professor Emeritus, the University of Calgary
Former President, World Hypertension League
Former President, Blood Pressure Canada
Former President, Canadian Hypertension Society
Former Chair, Canadian Hypertension Education Program
Former Chair, Canadian Hypertension Advisory Committee

Dr. Ross T. Tsuyuki, BSc(Pharm), PharmD, MSc, FCSHP, FACC, FCAHS, ISHF
Professor and Chair, Department of Pharmacology, University of Alberta
Professor of Medicine (Cardiology), University of Alberta
Director, EPICORE Centre, University of Alberta
Editor-in-Chief, Canadian Pharmacists Journal
Current President, Hypertension Canada

Dr. Heather Reich, MD CM, PhD, FRCPC
Oreopoulos-Baxter Division Director of Nephrology, University of Toronto
Gabor Zellerman Chair in Nephrology Research
Nephrologist, Clinician Scientist, University Health Network

Dr. Christopher T Chan, MD, FRCPC
Director, Division of Nephrology, University Health Network
R. Fraser Elliott Chair in Nephrology and Deputy Physician in Chief of Economics
Medical Lead, University Health Network Connected Care
Professor of Medicine, University of Toronto
President, International Society for Hemodialysis

Dr. Mark Gelfer, MD, CFPC
Family physician
Former Co-Chair, BP Measurement and Diagnosis, Hypertension Canada Guidelines
Former Corporate Medical Officer, TELUS Health Care Centres,
Former President, BC College of Family Physicians

Dr. Jesse Bittman, MD, FRCPC
Clinical Assistant Professor, University of British Columbia
Clinical Hypertension Specialist, Revolution Medical Clinic
Certified Hypertension Specialist, American Society of Hypertension

Dr. Rémi Goupil, MD, MSc, FRCPC
Professeur agrégé de clinique, Université de Montréal
Néphrologue, Hôpital du Sacré-Coeur de Montréal
Responsable de la clinique d'hypertension endocrinienne et résistante, CIUSSS-du-Nord-de-l'île-de-Montréal
Chercheur-boursier clinicien Junior 2, Fonds de recherche du Québec - Santé
Directeur adjoint scientifique à la recherche clinique, CIUSSS Nord-de-l'île-de-Montréal

Sarah Melville, BSc (Hons.), CCRP
Translational Research Associate
CardioVascular Research New Brunswick (CVR-NB), Horizon Health Network (HHN)
Saint John, New Brunswick

Dr. Amit Kaushal, MD, FRCPC, CCFP, MScCH (HPTE), CHS
Nephrologist, University Health Network
Assistant Professor, University of Toronto
Certified Hypertension Specialist, American Society of Hypertension

Dr. Michelle Hladunewich, MD, FRCPC, MSc
Chief of Medicine, Sunnybrook Health Sciences Centre
Professor, University of Toronto
Medical Lead, Glomerulonephritis and Specialty Clinics, Ontario Renal Network

Dr. Ally P.H. Prebtani, BScPhm, MD, FRCPC
Professor of Medicine, Internal Medicine, Endocrinology & Metabolism, McMaster University
Director, Global Health Program, Department of Medicine, McMaster University
Consultant, South Asian Diabetes Chapter, Diabetes Canada
Chair, Endocrine Hypertension, Hypertension Canada
Deputy, Aga Khan Health Services, Global Health Partnerships, Aga Khan Health Board Canada

Dr. Birinder Kaur Mangat, MD, FRCPC, MPH, ABOM
Director, Hypertension Clinic, Surrey Memorial Hospital
Director, Vascular Medicine Clinic, St. Paul's Hospital
Physician, Hypertension Clinic, St. Paul's Hospital
Clinical Assistant Professor, General Internal Medicine, University of British Columbia
Certified Hypertension Specialist, American Society of Hypertension

Dr. Ross Feldman, C.M., MD, MACP, FAHA, FCAHS, FRCPC
Professor of Medicine (Emeritus), Western University
Founding President, Hypertension Canada

Dr. Joseph Finkler BSc, MSc, MD, CCFP-EM
Emergency Physician, St. Paul's Hospital
Clinical Professor, University of British Columbia

Dr. Peter Ao MD, FRCPC
Staff Physician, Hypertension-Lipid Clinic, Royal Alexandra Hospital
Associate Professor, University of Alberta
Certified Hypertension Specialist, American Society of Hypertension

Dr. Tara Cessford MD, FRCPC
General Internal Medicine & Hypertension Specialist
General Internal Medicine Division Head, Royal Columbian Hospital
Clinical Assistant Professor, University of British Columbia

Dr. Gregory Kline, MD, FRCPC
Medical Director, Endocrine Hypertension Clinic
Clinical Professor of Medicine, University of Calgary

Dr. Martin Dawes, MBBS, MD, DRCOG, FRCGP, CCFP
Professor Emeritus of Family Practice, The University of British Columbia
Chair, BC GPAC Hypertension Guideline

Dr. Alexander Leung, MD, MPH, FRCPC
Physician, Endocrine Hypertension Clinic, Alberta Health Services
Associate Professor, Division of Endocrinology and Metabolism, University of Calgary

Dr. Marcel Ruzicka, MD, PhD, FRCPC, FAHA
Professor, Staff Nephrologist, Division of Nephrology, University of Ottawa
Medical Director, Renal Hypertension Program, The Ottawa Hospital

Dr. Stephanie Poon, MD, MSc, FRCPC
Medical Director, Heart Function Clinic, Sunnybrook Health Sciences Centre
Cardiologist, Sunnybrook Health Sciences Centre
Assistant Professor, University of Toronto

Dr. Cori A. Gabana, BSc (pharm), MD, FRCPC
Clinical Assistant Professor, University of British Columbia
General Internal Medicine and Hypertension Specialist, Royal Columbian Hospital
Director, Medical Education Program, Royal Columbian Hospital

Dr. Laura Kuyper, MD, FRCPC
Staff Physician, Hypertension Clinic, Vancouver General Hospital
Clinical Assistant Professor, University of British Columbia

Certified Hypertension Specialist, American Society of Hypertension

Dr. Bader N. Alamri MBBS, MSc, DABIM, FRCPC
Clinical Scholar and Post-doctoral Fellow, McMaster Centre for Metabolism, Obesity and Diabetes
Endocrinologist, Hamilton Health Sciences Centre

Dr. Jake Ornot, MD, FRCPC
Charter Member, Canadian Hypertension Society
Charter Member, American Society of Hypertension
Former Member, International Society of Hypertension
Former Chairman, Editorial Board of Hypertension Canada

Dr. Simon W Rabkin, MD, FRCPC, FCCS, FESC, FACC
Professor of Medicine, University of British Columbia
Past President, Vancouver CoC Medical, Dental and Allied Staff Association
Cardiologist, Vancouver Hospital
Past President, Canadian Hypertension Society

Dr. Karen Tran, MD, MHSc, FRCPC
Clinical Assistant Professor, University of British Columbia
General Internal Medicine Specialist, Vancouver General Hospital

Dr. John Kingdom, MD, FRCSC, FCAHS
Chair, Department of Obstetrics & Gynaecology, University of Toronto
Obstetrician and Past Head, Maternal Fetal Medicine Division, Mount Sinai Hospital

Dr. Kelsey McLaughlin, PhD
Assistant Professor, Department of Obstetrics & Gynaecology, University of Toronto
Staff Scientist, Department of Obstetrics & Gynaecology, Sinai Health System

Dr. Vincent K. Ki, MD, FRCPC
Nephrologist, Trillium Health Partners, Mississauga, ON
Certified Hypertension Specialist, American Society of Hypertension

Dr. Michael Pandes, MD, FRCPC
Chief of Nephrology, Mackenzie Health, Richmond Hill, ON

Dr. Netee Papneja, MD, FRCPC
Endocrinologist, Burlington, ON

Dr. Tosin Osuntokun MB BCH BAO MRCPI
Cardiologist, Women's College Hospital
Assistant Professor, Division of Cardiology, University of Toronto

Dr. Bailey Paterson, MD, FRCPC
Chief Nephrology Resident, University of Toronto

Dr. Kaitlyn Mellor, BHSc, MD, FRCPC (candidate)
General Internal Medicine Fellow, University of British Columbia