

Keynote Lecture 2

Chairperson

Hye Soon Park
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Speaker

Jean-Pierre Després
VITAM – Research Centre on Sustainable Health, Canada



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VITAM – Research Centre on Sustainable Health, Canada

• Education

Period	Affiliation	Position
– 1984-1986	University of Toronto, Toronto, ON, Canada	Ph.D.
– 1982-1984	Université Laval, Québec, QC, Canada	M.Sc.
– 1980-1982	Université Laval, Québec, QC, Canada	Ph.D.
– 1978-1980	Université Laval, Québec, QC, Canada	B.A.

• Affiliations / Experience

Period	Affiliation	Position
– 2012-Present	Department of Kinesiology Faculty of Medicine Université Laval, Québec, QC, Canada	Full Professor
– 2004-2012	Department of Social and Preventive Medicine – Kinesiology Faculty of Medicine Université Laval, Québec, QC, Canada	Full Professor
– 1996-2004	Department of Food Sciences and Nutrition Faculty of Agricultural Sciences and Nutrition Université Laval, Québec, QC, Canada	Full Professor
– 2000-2004	Human Nutrition, Lipidology and Prevention of Cardiovascular Diseases Université Laval, Québec, QC, Canada	Chair Professor
– 1994-1996	Department of Physical Education Faculty of Education Sciences Université Laval, Québec, QC, Canada	Professor

• Committee Memberships

- American College of Sports Medicine
- American Diabetes Association
- American Heart Association
- Association francophone pour le savoir (Acfas)

• Publications

- Adiposity, type 2 diabetes and atherosclerotic cardiovascular disease risk: Use and abuse of the body mass index. Arsenault BJ, Carpentier AC, Poirier P, Després JP. Atherosclerosis. 117546 PMID: 38692978
- Cardiovascular-Kidney-Metabolic Health: A Presidential Advisory From the American Heart Association. Ndumele CE, Rangaswami J, Chow SL, Neeland IJ, Tuttle KR, Khan SS, Coresh J, Mathew RO, Baker-Smith CM, Carnethon MR, Despres JP, Ho JE, Joseph JJ, Kernan WN, Khera A, Kosiborod MN, Lekavich CL, Lewis EF, Lo KB, Ozkan B, Palaniappan LP, Patel SS, Pencina MJ, Powell-Wiley TM, Sperling LS, Virani SS, Wright JT, Rajgopal Singh R, Elkind MSV; American Heart Association. Circulation. 148(20):1606-1635. PMID: 37807924
- BMI versus obesity subtypes in the era of precision medicine. Després JP. Lancet Diabetes Endocrinol. 11(6):382-384. PMID: 37068507
- Cardiometabolic Health Outcomes Associated With Discordant Visceral and Liver Fat Phenotypes: Insights From the Dallas Heart Study and UK Biobank. Tejani S, McCoy C, Ayers CR, Powell-Wiley TM, Després JP, Linge J, Leinhard OD, Petersson M, Borga M, Neeland IJ. Mayo Clin Proc. 97(2):225-237. PMID: 34598789
- Management of Obesity in Cardiovascular Practice: JACC Focus Seminar. Després JP, Carpentier AC, Tchernof A, Neeland IJ, Poirier P. J Am Coll Cardiol. 78(5):513-531. PMID: 34325840

Keynote Lecture 2

Cardiometabolic Health: Importance of Lifestyle Vital Signs

Jean-Pierre Després (VITAM – Research Centre on Sustainable Health, Canada)

In 2010, the American Heart Association (AHA) strategic decision to move the focus from managing cardiovascular disease (CVD) to promote cardiovascular health (CVH) was a visionary and remarkable conceptual advance. At that time, the AHA Expert Panel defined CVH on the basis of 3 traditional biological risk factors (cholesterol, blood pressure, and glucose) and 4 behaviors (smoking, healthy weight, overall nutritional quality, and physical activity). Using these simple metrics (referred to as the Simple 7) defining ideal CVH, cohort studies consistently reported that its prevalence was very low (less than 1%). However, when present, ideal CVH was associated with extremely low CVD event rates. One key finding from these early analyses performed on large cohorts was that in order to prevent cardiovascular events, behavioral risk factors were as important to target as biological risk factors. Unfortunately, studies conducted in the United States and in Canada have revealed that primary care physicians are ill-equipped to assess and target key behaviors such as level of physical activity and overall nutritional quality. More recently, AHA has added sleep as another important behavior to define cardiovascular health and the concept of Life's Essential 8 is now promoted.

Our laboratory has developed and tested simple tools to rapidly assess behaviors and their consequences in clinical practice. We have proposed the use of four lifestyle vital signs: waist circumference (as an index of abdominal adiposity), cardiorespiratory fitness (a key predictor of a healthy life trajectory), overall nutritional quality (assessed by a food-based questionnaire) and level of physical activity (assessed by a questionnaire). We found that a composite lifestyle risk score using these four variables was strongly associated with the cardiometabolic risk profile of our participants. Furthermore, in response to a 3-month lifestyle modification program, we found that changes in these four lifestyle vital signs contributed to explaining improvements in traditional biological risk factors.

It is therefore proposed that environments providing primary care or proximity health services could also become epicenters for the promotion of cardiovascular health. However, to achieve this goal, proximity health service environments will have to be properly designed so that lifestyle vital signs are measured and targeted. Promoting healthy lifestyle behaviors is the cornerstone of cardiometabolic health.