

Identifying research priorities for individual and combined 24-hour movement behaviours in the context of metabolic and bariatric surgery: an international consensus meeting

Aurélie Baillot^{1,2,3}, Jean-Philippe Chaput^{4,5}, Dale S. Bond⁵, Louisa Y. Herring^{6,7}, Diana Sherifali⁹, Ian Patton¹⁰, Judy Shiao¹¹, Christyne Simard¹², Nicole Kolzosvari¹³, Pavlos Pappasavas⁵, Julia Hussien¹

¹ *Interdisciplinary School of Health, Université du Québec en Outaouais, Gatineau, QC, Canada*

² *Institut du Savoir Montfort, Ottawa, Ontario, Canada*

³ *Centre de Recherche du Centre Intégré de Santé et Services Sociaux de L'Outaouais, Gatineau, Québec, Canada*

⁴ *Healthy Active Living and Obesity Research Group, Children's Hospital of Eastern Ontario Research Institute, Ottawa, ON, Canada*

⁵ *Department of Pediatrics, Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada. Center for Obesity Research, Innovation and Education, Digestive Health Institute, Hartford HealthCare, Hartford, CT, USA*

⁶ *Leicester Diabetes Centre, University Hospitals of Leicester NHS Trust, Leicester*

⁷ *Diabetes Research Centre, College of Life Sciences, University of Leicester, Leicester*

⁹ *School of Nursing, McMaster University, Hamilton, Ontario, Canada*

¹⁰ *Obesity Canada, Edmonton, Canada*

¹¹ *LEAF Weight Management Clinic, Ottawa, ON, Canada*

¹² *Center Intersection, Gatineau, QC, Canada*

¹³ *Bariatric Surgery Fellowship Program, University of Ottawa, Ottawa, ON, Canada*

Engaging in adequate physical activity, getting sufficient sleep, and limiting sedentary behaviour is important to optimize and maintain the benefits of metabolic and bariatric surgery (MBS). The 24-hour movement paradigm emphasizes the importance and interrelatedness of these behaviours throughout the 24-hour day. A hybrid consensus generation meeting was held in April 2025 in Gatineau, Québec to begin integrating this paradigm into MBS research and practice, seeking to identify research priorities (RPs) related to individual and combined 24-hour movement behaviours in the context of MBS. International attendees ($n=24$) included patient-partners, surgeons, practitioners, researchers, methodologists, a dietician, and organizational representatives who: (1) received six presentations on current evidence and the relevance of the 24-hour movement paradigm in MBS; (2) rated their (dis)agreement with an initial list of potential RPs; (3) joined a 30-minute semi-structured small-group discussion using the Nominal Group Technique to identify and justify top RPs; (4) voted on their top 5 RPs across all categories; and (5) participated in a second 30-minute discussion to generate research questions within each top 5 RP. The five top RPs identified were: (1) Development, feasibility, efficacy, and effectiveness of simultaneous or sequential behavioural interventions to improve 24-hour movement behaviours, (2) Interactions and co-dependencies among 24-hour movement

behaviours, (3/4) Patients' and clinicians' experiences, needs, and preferences regarding (a) 24-hour movement behaviour interventions and (b) physical activity interventions, and (5) Best practices for simultaneous assessment of 24-hour movement behaviours. This meeting provides a foundational starting point for advancing the 24-hour movement paradigm into MBS research and practice.

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