

International Delphi study of clinical and exercise professionals' opinion of physical activity prescreening and contraindications for participating in postpartum physical activity

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International Delphi study of clinical and exercise professionals' opinion of physical activity prescreening and contraindications for participating in postpartum physical activity

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ABSTRACT

Objective To establish expert consensus on prescreening and contraindications to moderate-to-vigorous intensity physical activity (MVPA) during the first year postpartum.

Methods A Delphi survey of clinical and exercise professionals working with postpartum women and people was conducted until consensus was reached ($\geq 75\%$ agreement). Round I consisted of questions about relative and absolute contraindications to MVPA. Rounds II and III included additional questions based on the thematic coding of open-ended responses from the previous rounds. The results were used to develop a postpartum MVPA preparticipation screening tool.

Results 120 participants completed round I, 105 completed round II and 95 completed round III. Consensus was reached in 46/49 (94%) statements. Twenty-four relative contraindications to MVPA were identified: (loss of consciousness; neurological symptoms; kidney disease; calf pain or swelling suggestive of deep vein thrombosis; severe abdominal pain; vaginal bleeding not associated with menses; postpartum cardiomyopathy; caesarean section with symptoms that worsen with MVPA; unstable hypertension; eating disorder; malnutrition; anaemia; excessive fatigue; fractures or other significant musculoskeletal injuries; haemodynamic instability; breathing difficulties; acute systemic infection accompanied by fever, body aches, or swollen lymph glands; the new onset of chest pain, discomfort, and other angina-like symptoms with exertion; dizziness or lightheadedness during MVPA; new symptoms of heart disease, stroke; and other medical or physical conditions that may affect the ability to be physically active. Key biopsychosocial barriers to MVPA were identified.

Conclusion This Delphi study recommends relative contraindications to MVPA for the first year postpartum that were incorporated into a postpartum MVPA preparticipation screening tool the Get Active Questionnaire for Postpartum.

WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ Historically, routine medical clearance was recommended before starting postpartum physical activity to identify medical conditions (contraindications) where engaging in moderate-to-vigorous intensity physical activity (MVPA) may not be advised.
- ⇒ This requirement creates unnecessary barriers to participation, but identifying contraindications to postpartum physical activity remains important.
- ⇒ Contraindications to postpartum physical activity vary across global guidelines.

WHAT THIS STUDY ADDS

- ⇒ This Delphi consensus provides evidence-informed expert recommendations on relative contraindications to MVPA and key biopsychosocial considerations.
- ⇒ The identified contraindications were incorporated into the Get Active Questionnaire for Postpartum, a self-assessment tool designed to help women determine whether they need medical guidance before engaging in MVPA.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ This Delphi consensus presents clinical and exercise expert recommendations on relative contraindications to postpartum MVPA that can be incorporated into future guidelines and practice.
- ⇒ The Get Active Questionnaire for Postpartum can be used by postpartum women and people to assess their medical readiness to begin MVPA.
- ⇒ Future high-quality research examining health outcomes in postpartum individuals with relative contraindications to MVPA is needed.

INTRODUCTION

The first year postpartum is associated with unique challenges, including, but not limited to, physiological and psychological recovery from pregnancy and childbirth, disrupted sleep and fatigue while caring for an infant.¹ This critical period is essential for maternal and newborn health and well-being.² Comprehensive systematic reviews and meta-analyses underpinning the development of the Canadian Society for Exercise Physiology (CSEP) *2025 Canadian Guideline for Physical Activity, Sedentary Behaviour and Sleep throughout the First Year Postpartum*³ demonstrate extensive health benefits derived from engaging in postpartum moderate-to-vigorous physical activity (MVPA).³⁻⁹ These health benefits include reductions in depression and depressive symptoms, weight retention and urinary incontinence.⁴⁻⁶ Those who experience pregnancy complications such as hypertensive disorders of pregnancy, gestational diabetes or spontaneous preterm delivery, as well as the presence or development of mental health symptoms or conditions, may especially benefit as they are at an increased risk of premature cardiovascular disease and cardiovascular-related mortality later in life.^{10,11} Thus, the first year postpartum provides an early window of opportunity for health promotion and disease prevention and is an excellent time to support lifestyle modifications, including physical activity.¹²

Historically, advice has been given to obtain medical clearance at 6 weeks postpartum before engaging in MVPA.¹³ While this recommendation is intended to ensure adequate healing and recovery, it also creates a potential barrier to participation.¹⁴ Aligning with current best practice recommendations outlined by the American College of Sports Medicine (ACSM) and National Health Service England, the *2025 Canadian Guideline* no longer recommends routine medical clearance before returning to MVPA postpartum.^{3, 15, 16} However, identifying medical conditions where MVPA may not be recommended (ie, contraindications) during the postpartum period remains important.

Developing a self-completed screening tool to identify those with potential contraindications would help postpartum women and people, exercise professionals* and clinicians identify who would benefit from medical guidance. A tool of this nature has been established for the general population (The Get Active Questionnaire (GAQ)¹⁷) and for pregnancy (GAQ for Pregnancy),¹⁸ but no such tool exists that addresses the unique biopsychosocial factors of the postpartum period that may influence appropriateness for physical activity participation. It was the intention of this group to create a postpartum-specific screening tool for contraindications and biopsychosocial barriers to MVPA called the Get Active Questionnaire for Postpartum (GAQ-PP).

Contraindications to MVPA in adult populations are classified as either absolute or relative. An absolute contraindication is a condition where MVPA is not advised until the condition has resolved (due to an elevated risk of harm). Although those with an absolute contraindication should refrain from MVPA until the contraindicating condition has resolved, activities of daily living (eg, light intensity physical activity) are encouraged as directed by a primary healthcare provider (eg, physician).¹⁹ In contrast, relative contraindications warrant a discussion between the postpartum person and the primary healthcare provider about any potential risks and benefits of participating in MVPA before the condition has resolved. Individualised modification or reduction in physical activity is generally recommended for relative contraindications rather than a complete cessation of activity.¹⁹

In addition to potential contraindications to MVPA, there is increasing recognition of the contributory role of biopsychosocial

considerations that may be barriers influencing readiness to engage in MVPA postpartum. However, there is a general lack of evidence-based literature on essential screening to remove barriers and facilitate support for physical activity participation. A recent international Delphi study on return-to-running readiness advocates for the assessment of biopsychosocial milestones in postpartum runners and reached consensus to recommend screening for musculoskeletal symptoms, mental health, fatigue, energy availability, milk supply and hydration status.²⁰ These recommendations are specific to runners and may not be applicable to the general postpartum population. Therefore, the current Delphi study aimed to establish expert opinions on (1) biopsychosocial screening that should be used to determine readiness to return to MVPA and (2) contraindications to MVPA during the first year postpartum to inform the development of the GAQ-PP.

* An appropriately qualified healthcare professional refers to someone with the relevant education, training, certification and experience to provide safe and effective care for a specific population or condition. The definition of this term can vary depending on the context, the healthcare system and the country in question.

METHODS

Prior to conducting the Delphi study, a scoping review was performed (MHD, S-MR) to identify existing exercise preparticipation screening and contraindications for the postpartum period following the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews.²¹ To identify relevant studies, a comprehensive search was created and run by a research librarian in the following databases: MEDLINE, EMBASE, CINAHL, SPORTDiscuss, Evidence-Based Medicine Reviews (Ovid), Scopus, Web of Science and ClinicalTrials.gov up to 11 July 2023. Complete search strategies are presented in the online supplementary file. No restrictions were placed on the publication date or language. The identified articles were downloaded into Covidence and screened by two independent reviewers (MHD and S-MR). However, no studies were identified for inclusion. In the absence of primary research studies, a recent scoping review of postpartum PA guidelines was used to identify contraindications listed in the existing guidelines.²² The identified contraindications as well as the authors' clinical input served as the starting point for the development of the initial survey in this Delphi Study.

DELPHI STUDY METHODOLOGY

The Delphi study consisted of a three-round survey design. The respondent group (participants) was asked their opinions on exercise preparticipation screening tools and contraindications for the postpartum period. The survey was available in English and French.

Participants

The Delphi author group identified professionals who were known to work directly with postpartum women and people in a variety of roles (eg, physician, physiotherapists, midwives, qualified exercise professionals) from diverse regions of the world with a specific effort to recruit professionals from low to middle-income countries and diverse cultures. Participants were recruited via publicly available organisational contacts and personal networks of the guideline panel. Participants consisted of experienced healthcare and exercise professionals who

currently or previously directed the care of postpartum women and people.

The Delphi author group consisted of the *Guideline Consensus Panel* for the *2025 Canadian Guideline*, and international experts in postpartum physical activity, including the leads for the Australian, United Kingdom, Polish and International Olympic Committee guidelines, and a panel member of the Spanish guidelines. The *Guideline Consensus Panel* consisted of researchers, exercise professionals and nominated representatives from the CSEP, the Society of Obstetricians and Gynaecologists of Canada, the College of Family Physicians of Canada, the Canadian Association of Midwives, the Canadian Academy of Sport and Exercise Medicine and Canadian Physiotherapy Association. All authors discussed and voted on the final recommendations.

Participants received an email sent through REDCap (Women and Children's Health Research Institute, University of Alberta, Canada) to provide electronic consent to participate in the study, followed by a personalised link to each survey round. Each item was put through up to three rounds of voting. A consensus was defined *a priori* as 75% agreement among respondents.²³ Items that reached consensus were not voted on in subsequent rounds. Five authors (MHD, SC, RED, CP, S-MR) thematically coded the survey free text responses in rounds I and II (the conditions listed in [table 1](#) are the final codes). Following the completion of the three rounds of the Delphi survey, the study authors compared the responses to current literature to make their final recommendations. The first round was open for 5 weeks, and the second and third rounds were open for 4 weeks.

Round I survey

The first round of the survey consisted of demographic information, including professional experience, and a series of questions to identify whether respondents considered a list of medical conditions to be an absolute, relative or not a contraindication using a 4-point Likert scale. Respondents were also asked the specific time from birth that they would consider these medical conditions to be a contraindication to postpartum MVPA. Respondents were asked open-ended questions about essential biopsychosocial screening tools that should be used to determine readiness to return to MVPA, and other medical conditions they considered relative or absolute contraindications to MVPA in the first year following childbirth.

Round II survey

Results from round I were used to develop the next survey round, which consisted of statements and a 4-point Likert scale for respondents to indicate their level of agreement/disagreement with each statement. Round II consisted of items that did not reach consensus in round I and items identified from the thematic coding of Round I responses.

Round III survey

During round III of the survey, the Likert-scale questions that did not meet consensus from round II were presented again with graphs, indicating participant responses (percentages of respondents who strongly agreed, agreed, disagreed or strongly disagreed) from round II in lieu of in-person discussion.²⁴ Respondents were again asked to rate their level of agreement using a 4-point Likert scale.

Author recommendations

A survey consisting of the recommendations created from group discussion and free-text options to indicate dissenting opinions

was then sent to the author group. The authors discussed the results of the Delphi data and current evidence, leading to the development of recommendations for each section. A second survey that consisted of suggestions provided by all authors on recommendations for each section was then sent out to determine level of agreement. The agreement of the author group following the second survey is highlighted where recommendations are made, and expert consensus agreement is made in the main text.

The Get Active Questionnaire for Postpartum

The *2025 Canadian Guideline for Physical Activity, Sedentary Behaviour and Sleep throughout the First Year Postpartum* does not recommend routine medical clearance prior to engaging in MVPA following childbirth.³ However, identifying the small number of people with potential contraindications to MVPA remains important. The GAQ-PP was adapted from the previously developed Get Active Questionnaire for Pregnancy (GAQ-P). The GAQ-P was developed using an evidence-based exercise preparticipation health screening approach recommended by the ACSM,¹⁵ following previously published protocol.¹⁴ The GAQ-PP follows the framework of the GAQ-P and uses the contraindications identified within this Delphi. Using this information, key screening questions were subsequently developed to identify those at high risk for contraindications where medical guidance would be required. These screening questions were formed by the author group, and refined through consultation with knowledge users including postpartum women and people, and the CSEP. The GAQ-PP also incorporates recommendations on screening for biopsychosocial considerations that may serve as barriers to postpartum MVPA that were identified in this Delphi.

Equity, diversity and inclusion statement

The author group consists of 22 women across career stages, primarily white (17), from seven different countries. All are experts in postpartum physical in a clinical, research and/or applied setting. The authors acknowledge that sex (biological attributes) and gender (sociocultural factors) are distinct and non-binary constructs. While they also acknowledge the significant under-representation of women in research studies, they have chosen to use gender additive language to support the inclusivity of all individuals who can become pregnant.

RESULTS

Respondent group

Sociocultural considerations were prioritised in this study. Through purposeful recruitment, diverse beliefs, practices and traditions of participants from 16 countries across six continents were included and well represented (see [table 2](#)). Participants (n=176) were recruited for round I. Of those contacted, 120 participants consented and completed round I, 105 completed round II (response rate 90.6%), and 95 completed round III (response rate 80.5%). Demographics for the respondents are presented in [table 2](#). Respondents reached consensus that a primary care physician should be the first person a postpartum individual consults about potential contraindications for the 24 medical conditions that were eventually identified as relative or absolute contraindications to MVPA (see online supplemental table 1). Thus, the respondents of the Delphi recommend that in the presence of potential contraindications, consultation with

Table 1 Respondent agreement on contraindications to moderate-to-vigorous intensity physical activity during the postpartum period

Condition	Round 1		Round 2		Round 3	
	Agree (%)	Disagree (%)	Agree (%)	Disagree (%)	Agree (%)	Disagree (%)
Absolute contraindications						
Loss of consciousness	75.4	22.9				
Neurological symptoms, such as fainting, ataxia or muscle weakness influencing balance	63.9	32.8	80.5	19.5		
Calf pain or swelling	58.8	36.1	77.2	22.8		
Renal resistive index (RRI) prior to delivery (significant increase in BP (>250/115) or decrease in systolic BP>10 mm Hg without ischaemic symptoms)	56.8	38.7	90.0	10.0		
Relative contraindications						
Vaginal bleeding not associated with menses	76.7	23.3				
Abdominal pain	82.9	6.8				
Birth trauma	57.9	9.2	75.2	24.8		
Postpartum cardiomyopathy	37.8	60.5	75.0	25.0		
Caesarean section	57.5	20.0	80.4	19.6		
Unassessed urinary or faecal incontinence	57.5	12.5	78.6	21.4		
High blood pressure	68.9	16.8	82.6	17.4		
Breast pain due to reasons other than mastitis	39.5	60.5	46.6	53.4	14.0	86.0
Pelvic girdle pain	56.3	43.7	65.1	34.9	26.3	73.7
Low back pain	29.7	70.3	49.1	50.9	13.9	86.1
Acute systemic infection, accompanied by fever, body aches or swollen lymph glands	55.1	37.3	51.2	48.8	78.8	21.2
Excessive fatigue	69.7	13.4	64.0	36.0	93.9	6.1
Hemodynamically unstable (ischaemic symptoms combined with systolic BP decrease>10 mm Hg with exercise)	72.0	27.1	50.7	39.3	95.0	5.0
Breathing difficulties	55.0	38.3	45.0	55.0	70.1	29.9
Chest pain	58.3	39.2	51.3	48.8	75.3	24.7
Dizziness	55.5	36.9	73.3	26.7	92.9	7.1
Heart disease or stroke	61.9	26.3	51.2	48.8	67.3	32.7
Concussion	51.7	43.2	64.6	35.4	87.5	12.5
Pelvic organ prolapse			86.6	13.4		
An eating disorder			86.6	13.4		
Fractures			76.9	23.1		
Malnutrition			75.0	25.0		
Diastasis rectus abdominis			86.0	14.0		
Anaemia			90.8	9.2		
Other medical or physical conditions that may affect ability to be physically active			88.7	11.3		
Not a contraindication						
Depression	95.0	5.0				
High anxiety	90.7	9.3				
Low mood	96.7	3.3				

Topics that reached consensus in round 1 were not put through another round of voting. Those that did not have data in round 1 were identified from the thematic coding of round 1 responses and reached a consensus in round 2.
BP, blood pressure.

an appropriately qualified healthcare provider is needed before beginning or returning to MVPA. Consensus was reached for 16 conditions to be considered relative or absolute contraindications to MVPA for at least the first year

postpartum (see online supplemental table 2). As such, the respondent group of the Delphi recommends treating the identified conditions as either relative or absolute contraindications to MVPA for at least the first year postpartum.

Table 2 Respondent group demographics

	Round 1	Round 2	Round 3
Total number of surveys started (n)	176	125	101
Total number of surveys completed (n)	120	105	95
Physical therapist/physiotherapist	71	68	60
Physician	34	27	27
Exercise professional	9	7	6
Kinesiologist/clinical exercise physiologist	5	1	1
Run coach	1	2	1
Completion rate (%)	68	84	94
Years in current profession (n)			
0–4 years	4	10	8
5–9 years	27	24	22
10–14 years	40	31	28
15–19 years	19	18	15
20+ years	30	24	22
Practice type			
Rural	8	8	8
Urban	84	72	63
A combination	27	25	24
Gender identity of respondents (n)			
Woman	114	103	92
Man	5	2	2
Prefer not to say	1	0	0
Age (years)			
Mean	41.6	39.0	39.2
Range	25–85	23–63	23–63
Race/ethnicity of respondents (n)			
White	108	103	92
Black/African American	2	2	1
Asian	4	3	3
Other	6	1	1
Country of origin (n)			
Australia	12	12	10
Belgium	2	1	1
Brazil	1	1	1
Canada	49	46	44
Chile	2	2	2
China	2	2	2
Hungary	1	1	1
Israel	1	1	1
New Zealand	2	2	1
Norway	1	1	1
Poland	4	3	3
Portugal	5	4	3
South Africa	2	2	1
Spain	3	2	2
United Kingdom	11	8	7
USA	22	17	15

Bold indicates significance, $P < 0.05$.

CONSENSUS ON CONDITIONS THAT ARE ABSOLUTE CONTRAINDICATIONS TO MVPA DURING THE FIRST YEAR POSTPARTUM

Respondent consensus

In round I, consensus was reached by participants that loss of consciousness for any reason (75.4% agreement) and neurological symptoms such as ataxia or muscle weakness affecting balance (80.5% agreement) are absolute contraindications to MVPA until they resolve. In round II, calf pain or swelling suggestive of deep vein thrombosis (77.2% agreement) and renal

resistive index prior to delivery (significant increase in blood pressure ($>250/115$) or decrease in systolic blood pressure >10 mm Hg without ischaemic symptoms) (90% agreement) are also absolute contraindications.

Current evidence

Given extensive literature demonstrating the health benefits of physical activity (with or without modification) across populations, making recommendations to unnecessarily restrict MVPA should be avoided. MVPA has been highlighted to prevent, mitigate and reduce exacerbation of >26 different chronic diseases.²⁵ Extended time away from physical activity can lead to deconditioning and therefore restriction of exercise should be weighed against the known negatives of sedentary behaviour.²⁶ In the presence of any contraindications, assessment and medical clearance by a primary healthcare provider are necessary. The conditions listed above may represent serious conditions where there is an increased risk of harm with MVPA. For example, if deep vein thrombosis is suspected, MVPA is minimised in the acute phase as it could potentially dislodge the blood clot risking a pulmonary embolism, though early mobilisation is encouraged.²⁷ Loss of consciousness and loss of balance due to neurological symptoms can be dangerous if syncope occurs during exercise. Each of these conditions warrants being classified as absolute contraindications to MVPA until they are treated and managed. However, calf pain or swelling, loss of consciousness and neurological symptoms could also be suggestive of conditions where MVPA would not be contraindicated (eg, postural orthostatic tachycardia syndrome, epilepsy, pulled muscle). Thus the panel recommended these conditions be listed as relative contraindications due to the acknowledgement, there are circumstances in which MVPA may be unnecessarily restricted.

Elevated renal resistive index reflects the reduction of kidney function and microalbuminuria and is treated as a significant classifier of pre-eclampsia, providing the possibility to predict nephropathy.²⁸ For many years, physical activity was restricted for patients with reduced renal function due to the belief that exercise reduced blood flow to the kidneys. However, more recent data suggest that a single bout of moderate-intensity continuous exercise maintains renal blood flow and does not induce renal injury in healthy populations.²⁹ Other studies showed that long-term lifestyle interventions, including physical activity counselling, can improve renal resistive index in overweight–obese patients.³⁰ The Delphi respondents reached consensus that renal resistive index be an absolute contraindication. However, while elevated renal resistive index alone is not sufficient to warrant being a contraindication to MVPA, the Delphi author group recommends that kidney or renal disease be considered a relative, not absolute, contraindication to MVPA postpartum.

Recommendation on absolute contraindications to MVPA (22/22 authors assent)

To avoid unnecessarily restricting MVPA postpartum, we recommend that individuals with potential contraindications be referred to their primary healthcare provider to obtain medical guidance, allowing healthcare providers to determine if cessation of MVPA is warranted. In most cases, physical activity may continue (with or without modification). Postpartum women and individuals who are seeking to initiate exercise without the guidance of a healthcare provider or exercise professional are encouraged to use the GAQ-Postpartum to identify if they have

any conditions that may warrant discussion with a healthcare provider prior to initiating MVPA

CONSENSUS ON CONDITIONS THAT ARE RELATIVE CONTRAINDICATIONS TO MVPA DURING THE POSTPARTUM PERIOD

Respondent consensus

Consensus was reached by participants in round I for severe abdominal pain (82.9% agreement); and in round II for physical birth trauma (eg, perineal trauma or tearing, surgical incision; 75.2% agreement); unassessed urinary or faecal incontinence (UI or FI) that worsens with MVPA or is bothersome (78.6% agreement); pelvic organ prolapse (POP, feeling of a bulge or heaviness in the pelvic region; 86.6%); caesarean section with symptoms that worsen with MVPA (eg, surgical incision pain; 80.4% agreement); diastasis recti abdominis (86% agreement); postpartum cardiomyopathy (75.5% agreement); high blood pressure ($\geq 140/90$ mm Hg; 82.6% agreement); haemodynamic instability (76% agreement); an eating disorder (89.4% agreement); breathing difficulties (eg, such as shortness of breath at rest that is not relieved with medications; 86.0% agreement); the new onset of chest pain, discomfort and other angina-like symptoms with exertion (91.4% agreement); dizziness or lightheadedness during MVPA (77.4% agreement); new symptoms of heart disease or stroke (92.4% agreement); malnutrition (75.0% agreement); fractures or other significant musculoskeletal injuries (94.7% agreement); acute systemic infection accompanied by fever, body aches or swollen lymph glands (77.9% agreement); excessive fatigue suggestive of anaemia or low energy availability (eg, relative energy deficiency in sport, REDs; 76.8%); anaemia (90.8% agreement); concussion (76.1% agreement); vaginal bleeding not associated with menses (76.7% agreement) and other medical or physical conditions that may affect ability to be physically active (88.7% agreement) are relative contraindications to MVPA in the first year postpartum.

Current evidence

Most of the medical conditions identified as relative contraindications by the participants are established to have potential health consequences which require medical guidance prior to engaging in MVPA.^{31–33} However, following discussion with a primary healthcare provider about potential risks vs harms, in most cases participation in MVPA would be recommended with or without modifications to the duration, intensity or modality of exercise. However, after reviewing current research, the authors proposed alternative classifications for four conditions: DRA, POP, unassessed UI/FI, and concussion.

No evidence to date suggests that a diagnosis of DRA is a contraindication to MVPA. In fact, the association between increased inter-recti distance (including mild-moderate DRA) and abdominal muscle strength and neuromuscular endurance deficits supports the potential need for individuals with DRA to participate in exercise programmes.^{34–35} Recent evidence has shown that engaging in a variety of exercise modalities during the early postpartum period, when DRA is most likely to be present, is not associated with adverse abdominal or pelvic health and should not be considered a contraindication to MVPA.^{5, 36–38}

The diagnosis of POP involves the identification of the descent of one or more of the pelvic organs towards the vaginal opening, which may or may not present in combination with subjective bothersome symptoms.^{39–41} While the Delphi respondents identified POP as a relative contraindication for postpartum MVPA, this may create an unnecessary barrier to MVPA. Prospective

and retrospective studies now recognise increased vaginal wall range of motion and changes in bladder neck mobility following pregnancy, irrespective of mode of delivery, but with greater changes post-vaginal birth, in all or most postpartum individuals.^{42–43} Two observational studies have demonstrated that participation in regular physical activity/exercise early in the postpartum period (ie, less than 6 weeks postpartum) was not detrimental to pelvic health^{36–44}; however, additional research to examine the impact of different modalities of exercise (eg, heavy weightlifting) is needed. Although the American College of Obstetricians and Gynecologists (ACOG) and the American Urogynecologic Society (AUGS) recommend those with symptomatic POP receive treatment, there is no recommendation to terminate participation in MVPA.⁴⁰ The International Consensus on Incontinence (ICI) 2023 recommends pelvic floor muscle training as the first choice of treatment for symptomatic POP. However, it should also be noted that, to the best of our knowledge, no evidence exists on the safety or efficacy of MVPA in postpartum individuals with severe (eg, grade 4) POP.

Urinary and anal incontinence are commonly experienced in the postpartum period.⁴⁵ For some individuals, these conditions are bothersome and can present a barrier to engaging in MVPA, while other symptomatic individuals continue to participate in MVPA. Interventional research demonstrates that urinary incontinence (involuntary leakage of urine) and faecal incontinence (involuntary leakage of stool) improve with pelvic floor muscle training (PFMT)⁵ and thus should not be considered a contraindication to MVPA. Rather, those who experience symptoms with or without exercise should seek assessment and treatment by a healthcare provider with training in pelvic floor examinations and rehabilitation.

Research on the initiation of physical activity post-concussion during the postpartum period is lacking, and research on the impact of concussion on the brain in the postpartum period is needed. However, there is strong evidence to support physical activity as an early intervention to reduce symptoms post-concussion in non-pregnant adults. The most recent international consensus statement on concussion in sports states that previous protocols suggesting rest/avoidance of activity post-concussion are no longer supported by best evidence; rather, they call for “relative rest,” which may include activities of daily living, light physical activity and reduced screen time in the first 48 hours post-concussion.⁴⁶ Physical activity as tolerated, and without the risk of re-injury, is recommended after 24–48 hours to support concussion recovery. Therefore, while it remains essential to monitor ongoing symptoms (with tools such as the SCOT-6),⁴⁷ it may be reasonable to consider physical activity as a key part of early treatment following a concussion in the postpartum period. It is also important to identify the cause of the concussion. For example, a concussion resulting from a fall due to loss of balance will require further investigation to discern potential balance issues. In contrast, a contact-related concussion (eg, a car accident or a sport-related concussion) may not be indicative of other underlying pathology responsible for the concussion.

Recommendation on relative contraindications to MVPA (22/22 authors assent)

We recommend several conditions be considered as relative contraindications. Those involving the cardiovascular and pulmonary systems include: postpartum cardiomyopathy; calf pain or swelling suggestive of deep vein thrombosis; haemodynamic instability (ischaemic symptoms combined with systolic BP decrease > 10 mmHg with MVPA); high blood

Table 3 Consensus on screening recommendations prior to beginning or returning to physical activity postpartum

Symptoms	Round 1			Round 2	
	Agree (%)	Neutral (%)	Disagree (%)	Agree (%)	Disagree (%)
Mental health	75.9	8.6	15.5		
Pelvic floor dysfunction	93.1	4.3	2.6		
Musculoskeletal pain	82.6	6.1	11.3		
Wound healing	91.1	6.3	2.7		
Readiness to return to moderate-to-vigorous physical activity	86.0	7.0	7.0		
REDs	75.2	12.8	11.9		
Abdominal screen for diastasis recti abdominis	75.7	9.4	14.7		
Sleep	75.5	7.3	17.3		
Abdominal pain	80.1	13.2%	6.6		
Fear of movement	66.7	16.7	16.7	76.9	23.1
Lactation				81.3	18.8
Preconception and pregnancy physical activity				85.3	14.7
Social/emotional support				85.4	14.6
Goals/plans for physical activity postpartum				90.6	9.4
Muscular strength				75.5	24.5
Vital signs				82.3	17.7
Eating disorder				85.3	14.7

Topics that reached consensus in round 1 were not put through another round of voting. Those that did not have data in round 1 were identified from the thematic coding of round 1 responses and reached a consensus in round 2.
 Bold indicates significance, P<0.05.
 REDs, relative energy deficiency in sport.

pressure > 140/90 mmHg SBP/DBP); breathing difficulties, such as shortness of breath at rest that is not relieved with medications; the new onset of chest pain, discomfort, and other angina-like symptoms with exertion; new symptoms of heart disease, stroke. Those involving musculoskeletal systems include: caesarean section with symptoms that worsen with MVPA (eg, surgical incision pain); fractures and/or other significant musculoskeletal injuries. Additional relative contraindications include: severe abdominal pain; vaginal bleeding not associated with menses; an eating disorder; malnutrition; anaemia; excessive fatigue suggestive of anaemia or low energy availability (eg, REDs); acute systemic infection accompanied by fever, body aches or swollen lymph glands; dizziness or light-headedness during MVPA; loss of consciousness for any reason; neurological symptoms such as ataxia or muscle weakness affecting balance; renal or kidney disease. These relative contraindications would apply for at least the first year postpartum or until they resolve.

CONSENSUS ON CONDITIONS THAT ARE NOT CONTRAINDICATIONS TO MVPA DURING THE POSTPARTUM PERIOD

Respondent consensus

Consensus was reached in round I for depression (95%), high anxiety (90.7%) and low mood (96.7%); and in round III for breast pain due to reasons other than mastitis (86.0%) and low back pain (86.1%) not being contraindications to MVPA following childbirth. Pelvic girdle pain did not reach consensus (73.7%).

Current evidence

Mental health concerns, including depression, anxiety and low mood, are common, with up to 39% of postpartum women and individuals being affected.^{48–51} Recent evidence across populations, including in the postpartum period, suggests that regular physical activity reduces the risk of developing depression and

anxiety as well as improving overall symptoms.⁴ Depression is a leading cause of global postpartum disability and can have significant personal and healthcare costs. A recent study found that the average cost-of-illness of untreated perinatal mood and anxiety disorders in the first 5 years of life was \$31800 USD per mother–child dyad in the USA.⁵² Thus, engaging in postpartum exercise represents a low-cost adjunct to pharmaceutical therapies and psychotherapy for mental health concerns. While mental health is important to assess and monitor in the postpartum period, it should not be considered a contraindication to exercise.

Lumbopelvic pain (LPP), which incorporates both lower back and pelvic girdle pain, does not represent a contraindication for exercise in the absence of an acute injury where the pain is indicative of potential tissue damage^{53–56} and when not being flagged for spinal metastases.⁵⁷ Tailored and individualised exercise, framed through an understanding of pain from a biopsychosocial perspective rather than a structural, biomechanical perspective and addressing supportive lifestyle factors, denotes the current key recommended care strategies for perinatal LPP.^{58–60} Importantly, anyone with perinatal LPP should be screened for fear-avoidance beliefs/behaviours as these are established as key risk factors for persisting LPP.^{61–62} Many biopsychosocial factors can drive fear of exercise or movement. However, musculoskeletal pain associated with injury or damage to the body, particularly in the pelvis, is one of the most well-established factors.⁶³ In the case of pain due to a suspected stress fracture, clinical referral is recommended (see Fractures in relative contraindications).

Although conceptually unique from musculoskeletal pain, perinatal breast pain typically does not denote tissue injury in the absence of an acute event where a breast injury may have occurred (eg, a hard tackle in rugby) or mastitis is suspected and clinical investigation is warranted.^{64–65} As

GET ACTIVE QUESTIONNAIRE FOR POSTPARTUM



NAME (+ NAME OF PARENT/GUARDIAN IF APPLICABLE) (PLEASE PRINT)

TODAY'S DATE (DD/MM/YYYY) DATE OF DELIVERY (DD/MM/YYYY) NO. OF WEEKS POSTPARTUM AGE

Physical activity after childbirth has many health benefits and is generally safe for you and your baby. But for some conditions, physical activity is not recommended. This questionnaire is designed to help you to determine whether you should speak to your primary health care provider (e.g., your physician or midwife) before you begin or continue to be physically active.

Please answer each question to the best of your ability by circling Y for Yes or N for No. If your health changes at any point in the 12 months after childbirth you should complete this questionnaire again.

1. In the first year after childbirth, have you experienced any of the following?		
a. Loss of consciousness for any reason?	Y	N
b. Neurological symptoms such as poor coordination or muscle weakness affecting balance?	Y	N
c. Deep vein thrombosis (blood clot in legs; can cause leg pain and swelling, or red/warm skin around painful area) or pulmonary emboli (blood clot in lungs; can cause shortness of breath, dizziness)?	Y	N
d. High blood pressure ($\geq 140/90$ mmHg) that is not stable?	Y	N
e. An eating disorder(s) or malnutrition?	Y	N
f. Postpartum cardiomyopathy (heart disease after childbirth)?	Y	N
g. New symptoms of heart disease (e.g., chest pain or discomfort) or stroke (e.g., face drooping, slurred speech) during activities of daily living or at rest?	Y	N
h. Severe abdominal pain?	Y	N
i. Chest pain/discomfort, dizziness or lightheadedness during exercise?	Y	N
j. Breathing difficulties such as shortness of breath at rest that does not improve with medications?	Y	N
k. Kidney disease?	Y	N
l. Excessive fatigue (e.g., beyond tiredness, does not improve with rest)?	Y	N
m. Severe infection accompanied by fever, body aches, or swollen lymph glands?	Y	N
n. Broken bone(s) or another significant injury?	Y	N
o. Caesarean section pain that worsens with exercise (e.g., surgical incision pain)?	Y	N
p. Vaginal bleeding not associated with menses?	Y	N
2. Do you have any other medical condition that may affect your ability to be physically active following childbirth? What is the condition? Please specify:	Y	N
3. Are you concerned about returning to, or increasing your physical activity following childbirth? Please explain:		

Go to Page 2 Describe Your Physical Activity Level

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Describe Your Physical Activity Level



During a typical week, what types of physical activities do you take part in (e.g., swimming, walking, resistance training, yoga)?

During the same week, please describe ON AVERAGE how often and for how long you engage in physical activity of a light, moderate or vigorous intensity. See definitions for intensity below the box.

ON AVERAGE	FREQUENCY (times per week)	INTENSITY (see below for definitions)	DURATION (minutes per session)
How physically active were you in the six months before pregnancy?	<input type="checkbox"/> 0 <input type="checkbox"/> 3-4 <input type="checkbox"/> 1-2 <input type="checkbox"/> 5-7	<input type="checkbox"/> light <input type="checkbox"/> moderate <input type="checkbox"/> vigorous	<input type="checkbox"/> <20 <input type="checkbox"/> 31-60 <input type="checkbox"/> 20-30 <input type="checkbox"/> >60
How physically active are you currently?	<input type="checkbox"/> 0 <input type="checkbox"/> 3-4 <input type="checkbox"/> 1-2 <input type="checkbox"/> 5-7	<input type="checkbox"/> light <input type="checkbox"/> moderate <input type="checkbox"/> vigorous	<input type="checkbox"/> <20 <input type="checkbox"/> 31-60 <input type="checkbox"/> 20-30 <input type="checkbox"/> >60
What are your physical activity goals for the next six months?	<input type="checkbox"/> 0 <input type="checkbox"/> 3-4 <input type="checkbox"/> 1-2 <input type="checkbox"/> 5-7	<input type="checkbox"/> light <input type="checkbox"/> moderate <input type="checkbox"/> vigorous	<input type="checkbox"/> <20 <input type="checkbox"/> 31-60 <input type="checkbox"/> 20-30 <input type="checkbox"/> >60

Light intensity physical activity: You are moving, but you do not sweat or breathe hard, such as walking to get the mail or light gardening.

Moderate intensity physical activity: Your heart rate goes up and you may sweat or breathe hard. You can talk, but could not sing. Examples include brisk walking.

Vigorous intensity physical activity: Your heart rate goes up substantially, you feel hot and sweaty, and you cannot say more than a few words without pausing to breathe. Examples include fast stationary cycling and running.

General Advice for Being Physically Active in the First Year Postpartum

Follow the advice in the 2025 Canadian Guideline for Physical Activity, Sedentary Behaviour and Sleep throughout the First Year Postpartum which recommends following an individualized, gradual and symptom-based progression towards the goal of at least 120 minutes of moderate-to-vigorous intensity physical activity (resistance training, brisk walking, swimming, gardening), spread over four or more days of the week: csep.ca/getactivequestionnaire-postpartum

We recommend everyone be screened (and treated) for barriers to physical activity: mental health, pelvic floor and abdominal wall function, musculoskeletal pain, wound healing, excessive fatigue, poor sleep, fear of movement, lactation status, social/emotional support, and eating disorders. If you have any questions about postpartum physical activity, consult a Qualified Exercise Professional or your healthcare provider to help ensure that your physical activity is safe and suitable for you.

Declaration

To the best of my knowledge, all of the information I have supplied on this questionnaire is correct. If my health changes, I will complete this questionnaire again.

I answered NO to all questions on Page 1. I have supplied on this questionnaire is correct. Physical activity is recommended.

I answered YES to one or more questions on Page 1 and I will speak with my health care provider before beginning or continuing physical activity.

I have spoken with my health care provider who has recommended that I take part in physical activity during the postpartum period. If my health changes I will speak with them again. Sign and date the declaration below.

NAME (+ NAME OF PARENT/GUARDIAN IF APPLICABLE) (PLEASE PRINT): _____

SIGNATURE (OR SIGNATURE OF PARENT/GUARDIAN IF APPLICABLE): _____

TODAY'S DATE (DD/MM/YYYY): _____ TELEPHONE (OPTIONAL): _____ EMAIL (OPTIONAL): _____

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Figure 1 Get Active Questionnaire for Postpartum (csep.ca/getactivequestionnaire-postpartum).

such, the presence of breast pain alone should not be considered a contraindication to exercise. Similar to perinatal LPP, modified movement framed through a lens of understanding the multifaceted nature of pain, and through pain neuroscience education is needed. Pain neuroscience education is an educational intervention that explains the pain experience from a biomedical perspective and recognises the biopsychosocial factors that contribute to it.⁶⁶ Research shows promise in this intervention regarding breast pain specifically.⁶⁶ If chronic breast pain is experienced, it is essential to ensure the use of a proper bra and support to minimise mobility.⁶⁷ If lactating, breast feeding or expressing milk before exercise is encouraged to reduce breast weight and make exercise more comfortable.^{20 32}

Recommendation on medical conditions that are not contraindications to MVPA postpartum (22/22 authors assent)

We recommend that depression, anxiety, low mood, breast pain, low back pain, pelvic girdle pain, concussion, mild/moderate POP, urinary and/or anal incontinence, and DRA should not be considered contraindications to MVPA in the first year postpartum. There is a need for further studies, especially for severe POP. In addition, it is important to recognise that many of these conditions may act as barriers to participation in MVPA, thus healthcare providers should be cognisant of these conditions and prioritise assessment and treatment over activity restriction. As PFMT has been shown to be effective for the management of urinary incontinence and POP symptoms, postpartum individuals with these symptoms should be referred to a pelvic health physiotherapist for treatment.^{5 68}

CONSENSUS ON BIOPSYCHOSOCIAL SCREENING TOOLS TO DETERMINE READINESS TO ENGAGE IN MVPA

Participants reached consensus in round I that screening for the following is required prior to beginning or returning to MVPA postpartum: overall readiness to participate in MVPA (86.0% agreement), eating disorders (85.3% agreement), musculoskeletal pain (82.6% agreement), wound healing (82.6% agreement), abdominal pain (80.1% agreement), fear of movement (76.9% agreement), mental health symptoms (75.9% agreement), diastasis recti abdominis (75.7% agreement), sleep (75.5% agreement) and REDs (75.2% agreement). In round II, consensus was reached that goals for postpartum physical activity (90.6% agreement), social/emotional support (85.4% agreement), preconception and pregnancy physical activity levels (85.3% agreement), vital signs (82.3% agreement), screening for lactation status (81.3% agreement) and muscular strength (75.5% agreement) are recommended prior to beginning or returning to MVPA postpartum (table 3).

Current evidence

While the above-listed conditions are not contraindications to MVPA, they may represent barriers to MVPA that require additional screening by a healthcare provider or qualified exercise professional to help support engagement in postpartum MVPA.^{4 69-73} Sleep disturbances are barriers to MVPA participation and have been associated with running-related pain in postpartum runners.⁷⁴ While sleep disturbance may not truly be a contraindication to MVPA, it may be a factor which dictates the intensity and/or duration of an acute bout of exercise (eg, a postpartum individual who experienced exceptionally poor

sleep the night before may choose to engage in light PA rather than MVPA).³²

As the normal biopsychosocial changes associated with lactation may mask symptoms of REDs (eg, lactational amenorrhoea is normal and removes the menstrual cycle as a marker of energy availability), it is recommended that a multidisciplinary team perform a thorough assessment of postpartum individuals with any symptoms consistent with REDs (eg, significant fatigue, bone stress injuries, etc) to determine if problematic low energy availability is responsible for these symptoms.^{20 32 75}

General principles of exercise prescription encourage exercise professionals to conduct a thorough consultation before initiating an exercise programme with a client, which includes a conversation about the individual's medical history, current and previous exercise participation history and goals. A comprehensive health/fitness evaluation, including vital sign measurements at rest and during exercise, cardiorespiratory fitness testing and musculoskeletal fitness testing (including strength, endurance, balance and flexibility), should also be used to determine if medical clearance is needed before participating in exercise. These exercise assessments also provide information on the appropriate starting point for an exercise programme.^{314 69-73}

Given the benefits of MVPA, it is essential to help postpartum individuals identify and address barriers to participation, such as personal and sociocultural attitudes towards physical activity. Recently, an increasing number of studies have explored the factors limiting physical activity after childbirth.^{73 76 77} Common barriers include lack of knowledge, time constraints, lack of childcare, lack of social support and cultural myths and beliefs (2). Therefore, individual proposals for overcoming these barriers, especially in relation to undertaking MVPA, are needed. For example, Albright *et al* have shown that telephone counselling somewhat facilitated the resolution of barriers and the achievement of MVPA goals.⁷⁶ However, there is a lack of research and recommendations on systemic solutions that take into account the specificity of a given culture, country or region.

Recommendation on biopsychosocial screening of barriers to MVPA (22/22 authors assent)

We recommend that in order to support engagement in postpartum MVPA, additional screening and treatment for potential barriers to MVPA by a healthcare provider or qualified exercise professional may be recommended (eg, mental health, pelvic floor and abdominal wall function, musculoskeletal pain, wound healing, REDs, poor sleep, fear of movement, lactation status, social/emotional support and eating disorders). The authors suggest the following screening tools be considered for this screening: Edinburgh Postnatal Depression Scale (depression and anxiety), PFDI-20 (pelvic floor dysfunction), Leaf-Q (REDs), Pittsburgh Sleep Quality Index (sleep quality), Fear Avoidance Beliefs Questionnaire (Fear of Movement). This list of recommended tools is by no means exhaustive; healthcare providers and exercise professionals working with postpartum individuals should be sure to use validated screening tools/patient-reported outcome measures to assess presence and severity of symptoms and identify the need for referral to a specialist for further assessment and treatment.^{table 1}

LIMITATIONS

The vast majority of contraindications for postpartum MVPA are based on the opinion of experts who developed previous guidance for the postpartum period due to a lack of empirical evidence. The lack of peer-reviewed research in the

initial scoping review underscored this. The author group was identified based on their membership on the *Guideline Consensus Panel* and recognised experts in the field from across the globe. While seven countries were represented in the author group, and 16 countries (six continents) were represented in the respondent group, the respondents were primarily from North America, white, and the majority were from the same profession (60% were physiotherapists). Nevertheless, the authors' knowledge and expertise in postpartum physical activity are based on many years of work in international teams, allowing the exchange of views from different cultures, regions and professions. This cross-cultural collaboration may have reduced the risk of bias in the author recommendations in this paper. However, we acknowledge that this Delphi was limited to the opinions of English and French-speaking individuals, which may neglect the clinical views of under-represented communities. Future work will be needed to translate and cross-culturally adapt the recommendations and the GAQ-PP for different socio-cultural contexts. High-quality research investigating the impact of exercise, specifically MVPA, in the context of the proposed list of relative and absolute contraindications is also urgently needed.

Clinical practice and research implications

As our understanding of the postpartum period has improved, we have begun to recognize how the significant and lasting physiological changes affect engagement in MVPA. Return to MVPA is now accepted to necessitate some level of rehabilitation, including a graded return to physical activity that may begin before the traditional recommendation of 6 weeks following childbirth.^{20 32} There is growing acceptance that there are unique medical conditions in the postpartum period where MVPA may not be recommended. While relative and absolute contraindications have been included in many postpartum physical activity guidelines, they have been primarily based on the expert opinion of a small group of guideline authors due to the severe lack of research in the area. This Delphi consensus provides evidence-informed expert opinion recommendations on contraindications to MVPA and key exercise prescreening tools to ensure readiness to return to MVPA. The GAQ-PP (see [figure 1](#)) has been adapted from the GAQ-P to include postpartum-specific contraindication screening questions (ie, the results of the Delphi).¹⁴ The GAQ-P was developed following best practice recommendations as a self-completed assessment tool to identify those at high risk for contraindications to MVPA.¹⁵ The adaptation highlights the extremely limited available data in the field, and the authors of this paper call on global researchers to fill this key knowledge gap.

CONCLUSION

This Delphi study is the first to present clinical and exercise expert recommendations on relative contraindications to postpartum MVPA in the first year postpartum. These findings have been incorporated into a new physical activity prescreening tool, the GAQ-PP, which is designed to empower postpartum women and people to identify whether medical guidance is needed before engaging in MVPA. Future work, informed by this study, is urgently needed to explore the impacts and barriers to MVPA in the first year postpartum.

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