

# Heart rate variability and self-compassion: Two tools to help postpartum mothers make exercise decisions

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Understandably, postpartum women do not want to overexert themselves after their bodies have navigated pregnancy and birth, while additionally experiencing fatigue and recovery. Credit: Shutterstock

The transition to parenthood is challenging for all parents but is particularly hard on mothers who are recovering from pregnancy and birth. This recovery often takes place behind the scenes of tending to the constant needs of a new baby. This motherload can leave mothers [feeling fatigued and overwhelmed](#), increasing the risk of postpartum anxiety and depression.

As [mothers](#) of young children ourselves and/or researchers who aim to better understand women's postpartum journeys, we can relate to the challenges mothers face in navigating physical activity after the birth of a child. We want to share two strategies that we (and broader research findings) have found helpful to (re)learn to engage in physical activity in new motherhood.

Our recommendations incorporate both a physiological indicator of recovery ([heart rate](#) variability) and a psychological indicator of well-being (self-compassion).

## **Navigating postpartum physical activity**

Despite the potential benefits of physical activity for new mothers, [few women engage in physical activity after the birth of a child](#). The mother we spoke to in our research [frequently cited a lack of education surrounding how to return to physical activity after the birth of a child to be a barrier](#).

Understandably, postpartum women do not want to overexert themselves after their bodies have navigated pregnancy and birth, while also experiencing fatigue and recovery. The first step is to help mothers learn to progress with physical activity in a flexible and adaptable way.

For example, if a mother had an exceptionally poor night sleep due to frequent infant wakening, they may wish to consider engaging in low-

intensity physical activity or to rest that day to allow for restoration. Comparatively, if a mother had a decent stretch of sleep and feels restored, they may wish to engage in more challenging physical activity.

Integrating physiological feedback into physical activity planning can help understand how the body is recovering (or not).

## Physiological feedback

One example is heart rate variability monitoring, which is frequently used by athletes to determine training load as it provides [physiological feedback regarding athlete recovery](#). Heart rate variability has also been used to safely prescribe exercise in [pregnant women](#).

Heart rate variability is a measure of the variation in time between each heartbeat.

- High heart rate variability has greater variability between heartbeats and indicates that the body is in a relaxed nervous system state (parasympathetic tone). A higher heart rate variability suggests the body has a [high capacity for stress and adaptation and can handle greater challenge](#).
- Low heart rate variability has a more consistent time between heartbeats and indicates that the body is in a more stressed nervous system state (sympathetic tone). Low heart rate variability suggests that [the body has low capacity for stress and adaptation](#).

Monitoring heart rate variability is a quick and easy way to assess the body's state of stress. It could be used by new mothers to determine whether their bodies are both physically and mentally prepared for

physical activity, and help them decide what intensity is appropriate for their current state.

This individualized health information may reduce some of the fear that new mothers experience when understanding whether their body is ready for exercise and enables self-education on physical activity prescription.

For instance, there are many [leisure activities](#) that raise one's heart rate that yield mental and physical health benefits, yet place less stress on the body, such as walking, stretching, playing with children or gardening. These activities could be done on days of lower than usual heart rate variability.

## **How to measure heart rate variability**

While the most accurate way to measure heart rate variability is by electrocardiograms in a laboratory, tools exist that allow us to measure it at home. Various heart rate monitors are available commercially, and smartphone apps can be downloaded to record heart rate variability from heart rate monitors, track heart rate variability over time, and give recommendations on physical activity intensity based on the results.

One important thing to remember about heart rate variability is that it is an individualized metric. What is "normal" for one person isn't necessarily the same for another. So, most [smartphone apps](#) will ask you to record your waking heart rate variability for one or two weeks prior to making physical activity intensity recommendations.

## **The role of self-compassion**

Self-compassion means [treating oneself with the same kindness and concern during challenging life events](#) as you would a friend.

Self-compassion can not only enhance physical and [psychological health](#), but [may also influence physical activity in the postpartum period](#). New mothers who adopt a lens of self-compassion have been found to have less guilt about taking time away from motherhood duties. [Through this lens of self compassion mothers are more comfortable taking time to engage in health-promoting behaviors such as physical activity](#).

Given the many mental and physical health benefits that mothers may experience with physical activity, there is a need for feasible and meaningful ways to guide mothers through physical activity participation in their current life situation.

Integrating knowledge about heart rate variability and self-compassion can lead to meaningful and informed physical activity engagement.

On a day when [heart rate variability](#) is lower than normal, mothers could consider whether some time to focus on rest and low-intensity movement to enable recovery is most important, rather than engaging in exercise that may be more stressful on the body.

Reframing expectations around physical activity postpartum through a lens of [self-compassion](#) may lead to better physical and psychological well-being and [physical activity](#) engagement in the long term.

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