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The Menstrual Cycle and Diabetes: A Focus on Self-Care

The menstrual cycle is a natural physiological process that occurs in women of reproductive age, characterized by a series of hormonal changes. During each menstrual cycle, the hormones estrogen and progesterone fluctuate throughout its different phases. These hormonal fluctuations influence various processes in the body, including metabolism and blood glucose regulation.

For this reason, there is a **bidirectional relationship** between hormonal fluctuations during the menstrual cycle and the management of type 1 diabetes mellitus: the different hormones throughout the menstrual cycle influence insulin resistance/sensitivity, and, conversely, diabetes management can affect how a woman experiences her menstrual cycle—e.g., suffering from amenorrhea due to high variability in glucose levels.

Therefore, being aware of **self-care** is key in managing the menstrual cycle for women with diabetes. This involves paying attention to hormonal changes throughout the cycle and adjusting blood glucose management strategies, such as insulin dosing, among others.

Proper self-care not only promotes better glucose levels but also helps reduce the negative effects that hormonal imbalances can have on quality of life, such as fatigue, discomfort, or emotional changes.

GENERAL RECOMMENDATION

As a basic self-care recommendation for women with diabetes regarding their menstrual cycle, it is important to understand the glycemic, energy, and emotional implications of each phase of the cycle. This knowledge can help make lifestyle and habit decisions that align with the needs of each stage of the menstrual cycle.

Below is detailed information on how each phase of the menstrual cycle affects diabetes management, along with self-care recommendations for women with diabetes regarding diet, physical activity, and emotional health.

EARLY FOLLICULAR PHASE, MENSTRUATION (DAYS 1–5)

The body is shedding the uterine lining, and hormone levels are at their lowest. There is usually **greater insulin sensitivity**.

Emotional intensity is higher than in other phases, with increased awareness and sensitivity to bodily sensations (e.g., pain). A need for introspection and a stronger instinct for protection and self-care also arise.

Self-care recommendations for diet and physical activity:

- **Hydration:** Drinking water and reducing caffeinated beverages helps with hydration, as dehydration can intensify menstrual symptoms.
- **Promoting well-being:** Include herbal teas with ginger, turmeric, and black pepper (which have anti-inflammatory properties).
- **Comforting nutrition:** Eat meals with legumes, whole grains (rich in magnesium), and include fruits in salads or as dessert (source of vitamin C).
- **Carbohydrate management tends to be easier in this phase due to higher sensitivity:** good time to try new or harder-to-manage foods.
- **Listen to your body** during exercise and take breaks if needed.
- **Choose physical activity that feels enjoyable,** not like an obligation.
- **Note or reflect on whether snacks** (carbohydrates before, during, or after exercise) are needed for future reference.
- **Energy levels may vary,** so adjust exercise intensity accordingly.

Self-care recommendations for emotional well-being:

- **Delegate tasks or break them** into smaller parts, allowing for more or longer breaks.
- **Don't avoid or suppress emotions:** accept them without judgment, give yourself permission to feel. It may help to express emotions through crying, writing, or talking to someone.
- **Include self-care rituals:** a hot bath or a nap can make a big difference. It might be a good time for calming, precise creative activities (e.g., knitting or embroidery).
- **Include mindfulness or observation** activities that focus attention on an external stimulus, ideally in nature—e.g., »

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BEING AWARE OF SELF-CARE IS KEY IN MANAGING THE MENSTRUAL CYCLE FOR WOMEN WITH DIABETES



- » sitting on a bench during a walk just to observe your surroundings.
- **Communicate your needs**—don't be afraid to ask for space or support from trusted people.

- **Avoid toxic environments** and seek out understanding company.

LATE FOLLICULAR PHASE (DAYS 6–14)

Estrogen levels begin to rise. Insulin sen-

sitivity may still be present but less pronounced.

There is increased motivation, a drive to be productive, a greater awareness of personal strengths, and a predisposition »

» to experience positive emotions (joy, pride, self-esteem).

Self-care recommendations for diet and physical exercise:

- **Enjoy variety:** take advantage of this active and energetic phase to eat a varied diet and try new ingredients and recipes.
- **Practice mindful eating** to better recognize hunger and fullness cues, which helps during more challenging phases.
- **Explore new exercise routines:** try new activities.
- **Include more energy-demanding or hyperglycemic activities:** high-intensity training, weightlifting, or functional training.

Self-care recommendations for emotional well-being:

- **Use your energy** to resume or start personal or professional projects.
- **Set clear goals:** it's a good time to make progress, but it's important to set realistic goals as this level of energy may not last.
- **Express yourself creatively:** ovulation is linked to increased creativity, so it's a great time to paint, write, or engage in free expression.
- **Reinforce achievements:** reflect on progress with diabetes and personal life, as this is usually a more stable glycemic phase—celebrate even small victories.

OVULATION (DAY 14)

The estrogen surge may increase insulin sensitivity, though some women also experience glucose spikes due to stress or hormonal activity. Glucose may not necessarily be affected. This is the most energetic time of the cycle—motivation, desire for strong emotions, and readiness for challenges peak. There is also greater focus, concentration, planning, and projection capacity.

Self-care recommendations for diet and physical activity:



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- » • **Promote energy-dense foods:** add avocado, aged cheeses, nuts to meals.
- **Be mindful** of meal pace to feel more satiated.
- **Avoid excessive stimuli** during meals to stay present with the food.
- **Even with higher energy levels**, don't push past your limits—pause or reduce intensity if discomfort or fatigue arises.

Self-care recommendations for emotional well-being:

- **You might feel a greater need to release** mental and emotional tension, so try activities that help channel it, e.g., reading a complex book.
- **Maintain balance:** if you start feeling overwhelmed, take a break to breathe and slow down. Learn to schedule rest breaks between tasks.
- **Ask for help if needed:** even in a high-energy phase, you may need support, e.g., during a hypoglycemic episode.

LUTEAL PHASE (DAYS 15–28)

High progesterone levels can cause insulin resistance, potentially increasing insulin needs and making hyperglycemia more likely. Activation levels drop, so there's a need for lower-impact physical, emotional, and mental activities.

Self-care recommendations for diet and physical exercise:

- **Prioritize sleep hygiene.** Eat nuts and seeds, leafy greens, and legumes (rich in magnesium).
- **Use the Harvard plate method** (1/4 carbs, 1/4 proteins, 1/2 vegetables) for easier glycemic control.
- **Be aware that cravings will increase**, so be compassionate and allow treats in a safe, mindful setting.
- **Identify which “forbidden” foods** you're craving.
- **Practice mindful eating** (use all your »

- » senses—e.g., smell a piece of chocolate before eating it, notice its flavors: sweet, bitter, etc.) when anxious about food.
- Understand that **eating out** may make glucose management harder.
- **Do more routine**, cardio-type exercises (running, biking, swimming) that are typically hypoglycemic.
- **Use physical exercise to clear your mind**, so don't try new exercises—stick to what feels comfortable and familiar.
- **journal or on your phone** to gain perspective and feel more in control.
- **Start incorporating body-focused self-care routines**, such as stretching after work or a skincare routine.
- **Lower your expectations** about diabetes control, as it's normal for time-in-range to vary due to increased insulin resistance.
- **Use positive affirmations** to manage diabetes-related frustration: "This is temporary," or "My body is focusing on preparing for menstruation, and that's okay."
- Since ruminative thoughts may be more frequent due to increased internal and external sensitivity, **write them in a**
- **Seek more disconnect moments** and evaluate how social media or certain conversations affect you. **D**

Self-care recommendations for emotional well-being:

CONCLUSIONS

The menstrual cycle directly affects glycemic management in women with diabetes due to the impact of hormones on insulin needs. Understanding this impact and attending to self-care by developing specific habits for each phase of the menstrual cycle is key to supporting diabetes management. These habits relate to diet, physical activity, and emotional care and should be adapted to each menstrual phase and the individual characteristics of each woman with diabetes.

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