The WHOOP Menstrual Cycle Insights Feature

Wearable-Powered Cycle Tracking and Interpretation

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Abstract

Accurate tracking of the menstrual cycle is critical for monitoring women's health, yet traditional methods — calendar-based estimates, at-home Luteinizing Hormone (LH) tests, and basal body temperature — are limited by manual input burdens and fixed-cycle assumptions. The WHOOP Menstrual Cycle Insights feature is a wearable-powered cycle tracking feature that leverages continuous biometric data from the WHOOP device alongside minimal user input to generate personalized predictions of cycle phases and onset timing. An adaptive machine-learning algorithm integrates historical cycle data, birth control status, and real-time physiology to visualize phase-based trends and cycle metrics. By transforming complex signals and patterns into actionable insights, the Menstrual Cycle Insights feature empowers members with clear, personalized insights into their cyclical physiology and symptoms.

Table of Contents

SECTION 01

How and Why to track the Menstrual Cycle

Why Track The Menstrual Cycle

The menstrual cycle is a critical indicator of health for women. The U.S. National Institutes of Health (NIH) even recognizes the menstrual cycle as a fifth vital sign, highlighting its significance beyond reproduction.[1,2] The menstrual cycle is not just a measure of reproductive health, but a broader component of holistic wellness. Just as changes in weight or blood pressure can signal underlying health issues, changes in the menstrual cycle may reflect shifts in overall physiology and wellbeing.

Tracking patterns in the menstrual cycle over multiple years can provide valuable insights into long-term health outcomes. Research has shown that irregular or missing cycles are associated with increased risks of chronic health conditions such as cardiovascular disease, diabetes, and certain cancers.[3–5] The definition of an irregular cycle can vary, but typically includes cycles shorter than 21 days, longer than 35 days, or with cycle-to-cycle variability of more than 7 days. In a study of nearly 80,000 women, those with irregular cycles had a higher incidence of premature mortality, primarily due to cardiovascular diseases.[6] Another study of over 15,000 women found that those who experienced irregular menstrual cycles in their mid 20s were twice as likely to develop ovarian cancer later in life.[3] These findings suggest that menstrual cycle irregularity can serve as an indicator of underlying health issues, reinforcing its role as a key marker for long-term health.

Menstrual cycles also influence daily physiology, quality of life, and performance. Fluctuating hormones, such as estrogen and progesterone, affect multiple physiological systems over the course of the menstrual cycle. Many women report shifts in mood, energy, and focus depending on the phase of their menstrual cycle. Research has shown that the menstrual cycle has a significant effect on self-reported feelings such as happiness, energy, productivity, and sociability. In a 2021 study, Pierson et al. found that respondents reported feeling a 6% increase in feelings of sadness in the days preceding menstruation.[7] Physiological metrics such as heart rate, temperature, and weight, are also affected by hormonal changes. For example, core body temperature rises after ovulation due to the heat-producing effects of progesterone. These short-term variations illustrate that the menstrual cycle isn't just vital to reproduction, but to whole-body physiology and psychology.

Lifestyle behaviors, including exercise, stress management, and nutrition, play a crucial role in menstrual health. Regular physical activity has been associated with reduced menstrual symptoms. A study of high school students found that those with fewer than two physical education classes per week were 4.43 times more likely to experience premenstrual syndrome (PMS).[8] Exercise interventions have also been shown to significantly reduce PMS symptoms, with one study reporting a 65% decrease in physical symptoms within eight weeks.[9] In addition to physical activity, psychological stress is also known to disrupt the menstrual cycle, with high-stress periods often leading to irregular or missed cycles.[10] Maintaining a healthy lifestyle can promote a more regular cycle and alleviate symptoms, underscoring the importance of monitoring both menstrual health and contributing lifestyle factors.

Given its impact on both long- and short-term health, tracking the length, symptoms, and regularity of the menstrual cycle offers immense value. Monitoring changes make early detection of health and cycle anomalies possible and empower individuals to seek medical advice before minor concerns escalate. Cycle tracking, whether through a phone application or traditional journaling, can increase health literacy and facilitate early detection of reproductive health conditions. Ford, et al. found that women who tracked their cycles for just three months reported a stronger sense of control over their health and saw improvements in overall health literacy.[11] Further, it was observed that those with PMS or Premenstrual Dysphoric Disorder (PMDD) experienced a reduction in symptoms when using a menstrual cycle tracking app, leading to significantly fewer missed commitments.[12]

The menstrual cycle is far more than a reproductive rhythm — it reflects how the body responds to both daily stressors and long-term health risks. Shifts in cycle patterns can offer early clues into changes in physical, mental, and emotional well-being, making them a powerful tool for proactive health management. By bringing visibility to these changes, cycle tracking empowers individuals to better understand their bodies, make more informed decisions, and build lasting health literacy. When interpreted through a whole-person lens, the menstrual cycle becomes not just a recurring phase — but a meaningful signal of overall health.

WHOOP Reproductive Health Survey Highlights

Since 2022, WHOOP has conducted an annual reproductive health survey for members who menstruate. In the 2024 study, an impressive 20.9% of eligible members participated. This data has continued to help WHOOP identify key areas of interest to members and provide critical insights into the development of new research and features.

Key findings from the 2024 survey include:

Current birth control usage

33%

67% menstruate without hormonal birth control or copper IUD.

Methods of birth control used

Of those using birth control (33%):

40%	use the Pill
37%	use hormonal IUDs

Reproductive health conditions

22%

22% report at least one reproductive health condition:

9%	Polycystic Ovarian Syndrome (PCOS)
11%	Ovarian cysts
5%	Endometriosis
10%	Two or more conditions

Conception journeys

Among those trying to conceive:

30%	trying for over 12 months
19%	using IVF or fertility interventions
73%	using cycle tracking apps

Average age of perimenopause onset

42.8 years

Median menopause age: 50

Majority report changes in cycle length (82.6%) or intensity (74.9%)

Smarter Cycle Tracking on WHOOP

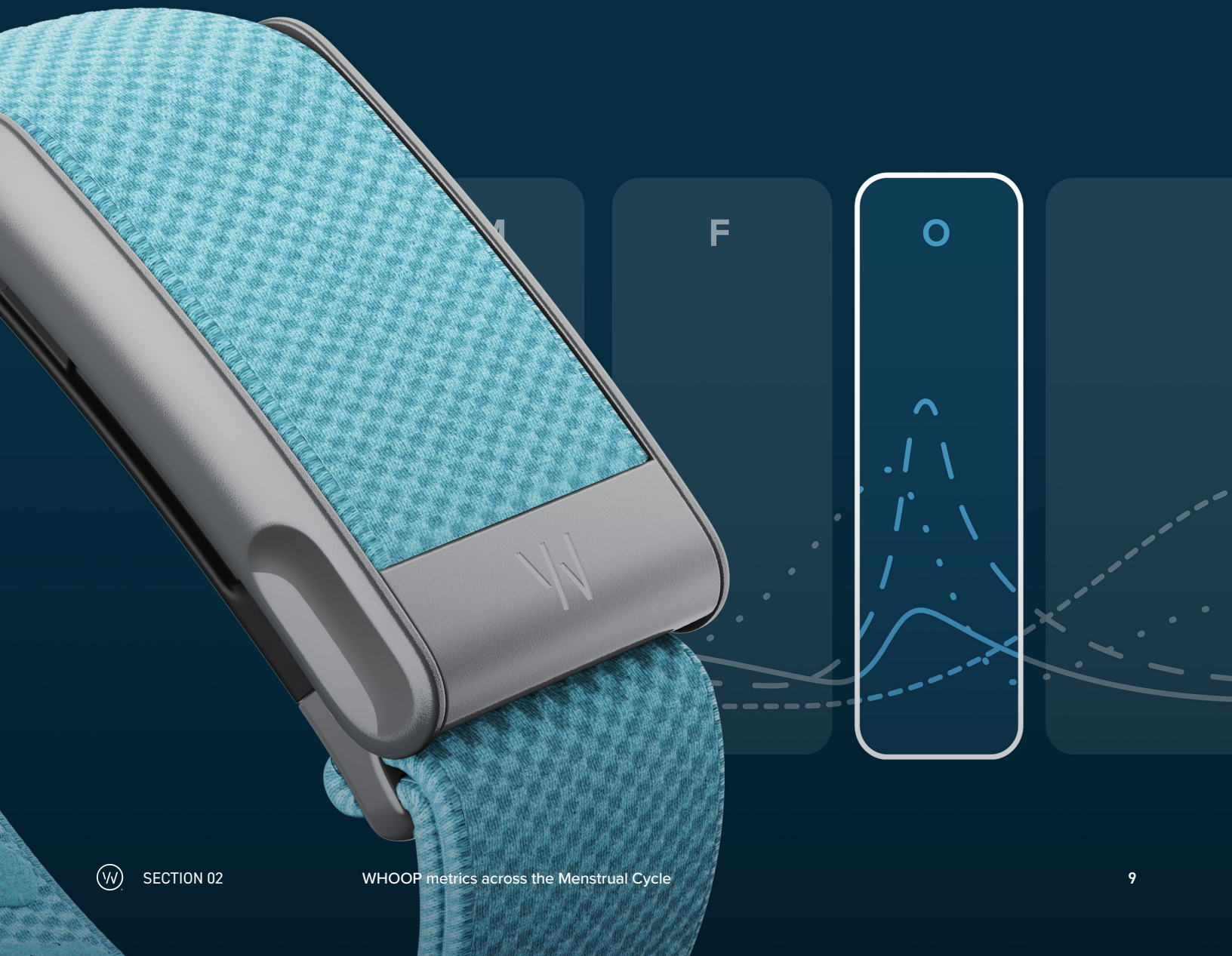
The Menstrual Cycle Insights feature was developed to address the limitations of traditional tracking methods by integrating continuous physiological data from WHOOP. Previously, traditional tracking methods required frequent manual input and multiple measurements throughout each cycle. For example, the calendar method estimates future periods based on past cycle lengths, typically assuming ovulation occurs 12-14 days prior to the next period. Although the calendar method is simple and noninvasive, it can be inaccurate due to natural variations in cycles.[13] Even those with regular cycles may find inaccuracies in the calendar method if stress or other factors alter cycle length. Other tools to track ovulation, such as at-home urine tests for luteinizing hormone (LH), or basal body temperature (BBT) tracking require strict adherence to daily recordings at points in the cycle.

Menstrual Cycle Insights improves upon existing methods by using machine learning and continuous physiological data — such as heart rate, respiratory rate, and skin temperature — to create a dynamic, individualized model of the menstrual cycle. The only manual input required is tracking menstrual bleeding within the Journal or Menstrual Cycle Insights calendar. This simple entry, combined with biometric monitoring, allows WHOOP to provide members with deeper insights into their unique cycle.

By continuously adapting to each member's individual physiology and cycle lengths, Menstrual Cycle Insights delivers a personalized and responsive tracking experience. Unlike some conventional methods that assume a fixed 28-day cycle — an assumption that only applies to about 16% of people who menstruate — Menstrual Cycle Insights detects differences in cycle length and adjusts predictions accordingly.[14] Because menstrual cycles naturally vary — and can be affected by things like stress, travel, and physical activity — this flexible tracking adapts to each person, rather than a population average.

SECTION 02

WHOOP metrics across the Menstrual Cycle



WHOOP Metrics Across the Menstrual Cycle

To understand how WHOOP data is used for menstrual cycle predictions, it's important to first review the typical physiological changes that occur throughout the cycle. Each cycle is guided by hormonal fluctuations that define distinct phases: the follicular phase (beginning with menstruation), ovulation (mid-cycle), and the luteal phase (after ovulation).

The follicular phase, which typically spans the first half of the cycle, begins with relatively low levels of reproductive hormones. As the cycle progresses, estrogen rises, triggering a surge in luteinizing hormone (LH) and follicle-stimulating hormone (FSH). The LH surge prompts ovulation — the release of an egg. Ovulation marks the transition between phases and is the window during which conception can occur.

After ovulation, the luteal phase begins, and progesterone becomes the dominant hormone. Progesterone prepares the body for a potential pregnancy. If fertilization does not occur, progesterone levels drop, triggering menstruation and the start of a new cycle.[15] If pregnancy does occur, hormone levels remain elevated, and menstrual bleeding does not take place.

These hormonal shifts follow a recurring pattern that influences multiple physiological systems throughout the body.

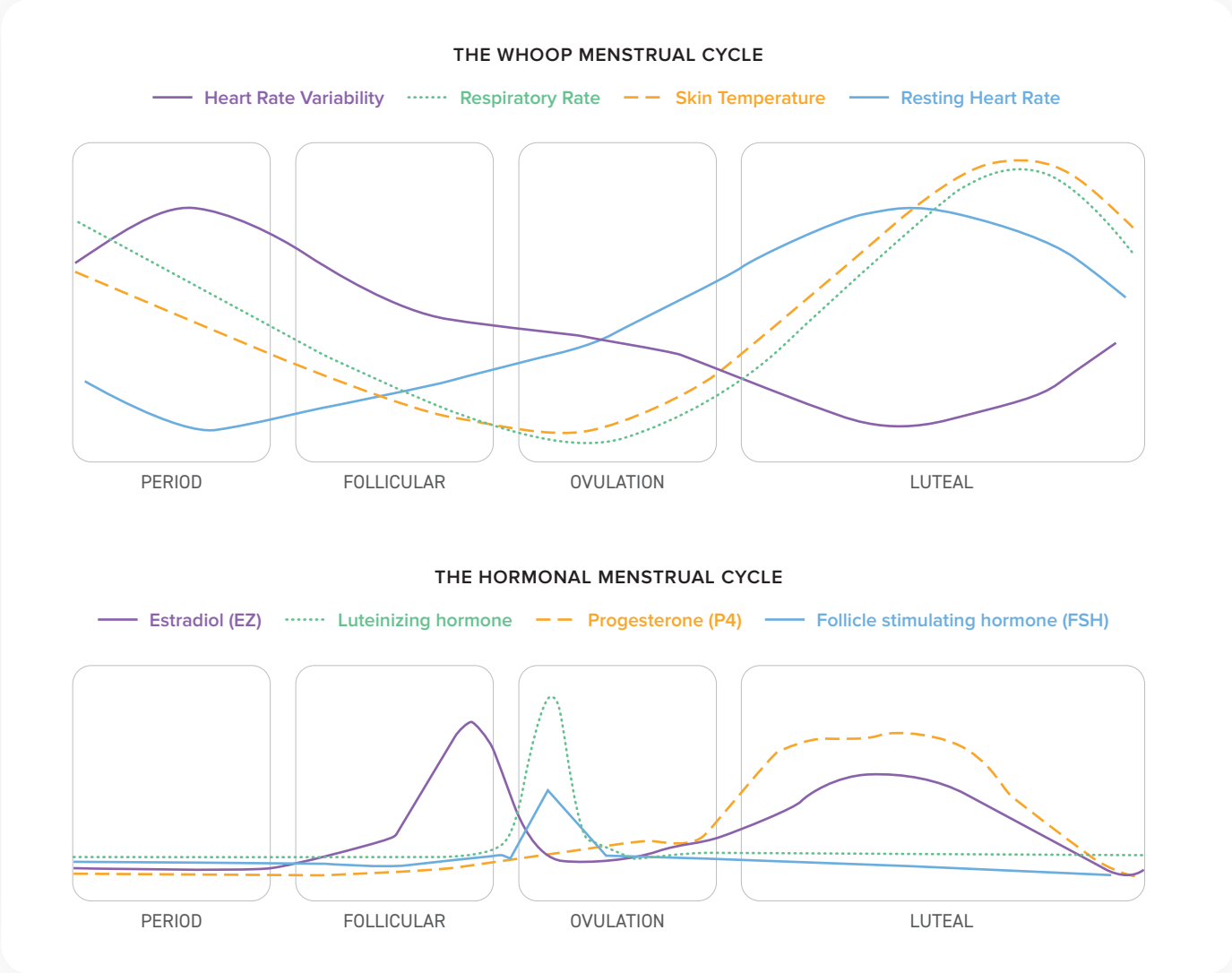


Figure 1: Population level trends in WHOOP metrics and hormonal levels across the menstrual cycle.

Internal studies of anonymized WHOOP member data align with existing scientific literature on how hormone changes impact physiological metrics such as RHR, HRV, and Skin Temperature throughout the cycle. Early in the cycle, when estrogen is increasing and progesterone is low, members tend to experience lower RHR and higher HRV. Moving from ovulation into the beginning of the luteal phase, RHR climbs higher and HRV drops. Towards the end of the luteal phase, about a week before the next menstrual cycle, RHR decreases and HRV increases, returning to their respective lowpoint and highpoint in the next menstrual period. Respiratory rate and skin temperature also vary systematically across cycles, reaching their lowest points just before ovulation and peaking following ovulation.

Using well-established patterns in how the body changes throughout the menstrual cycle, the Menstrual Cycle Insights feature provides phase-based guidance on how a person's capacity for strain, stress, and sleep may shift over time.

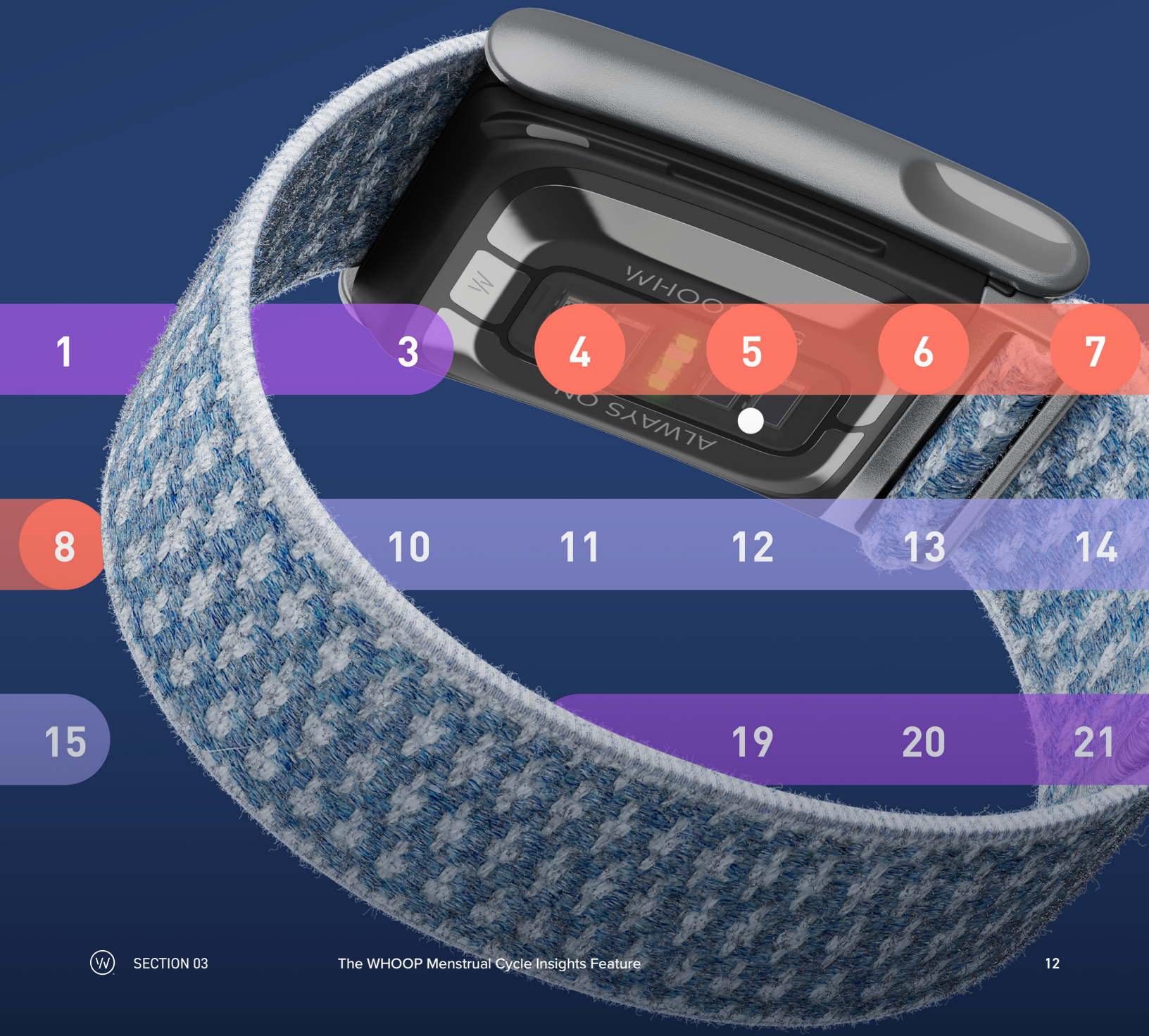
Although individual responses vary, these insights help members better understand how their bodies might perform, recover, and rest during each phase of the cycle.

Phase	Sleep Efficiency	Strain Tolerance	Stress Tolerance
Menstrual	LOW	HIGH	HIGH
Follicular	HIGH	HIGH	HIGH
Ovulatory	NORMAL	HIGH	HIGH
Luteal	LOW	LOW	LOW

Table 1: Adaptations in Sleep, Strain, and Stress by cycle phase.

SECTION 03

The WHOOP Menstrual Cycle Insights Feature



Developing Menstrual Cycle Insights

The Menstrual Cycle Insights period predictions were developed using physiological data collected from members wearing WHOOP, alongside member-reported menstrual bleeding, and advanced machine learning techniques. The algorithm aims to construct a comprehensive and personalized representation of each member's physiology across their menstrual cycle. By integrating past cycle lengths and real-time biometric trends, the Menstrual Cycle Insights algorithm predicts a window of days during which the next menstrual cycle is likely to start.

Menstrual Cycle Insights determines timing and variability of the menstrual cycle by analyzing past journaled menstruation, birth control status, reported typical menstrual cycle length, and WHOOP recovery data (Skin Temperature, RHR, etc.). If a member has not logged the dates of their previous menstrual cycles, Menstrual Cycle Insights leverages a population average and reported typical cycle length. In the future, as a member logs information on their menstruation and the WHOOP strap collects more physiological readings the predictions will become personalized to the member's physiology.

The window automatically adjusts to show members the most specific (narrow) estimate that we can predict with confidence. For instance, if a member has logged fewer cycles or if their cycle lengths have high variability, their predicted window may be wider (within four days of expected menstruation). As Menstrual Cycle Insights gathers more information, the prediction window may shrink, narrowing to within one day of expected menstruation for consistent cycles. This dynamic window allows the Menstrual Cycle Insights algorithm to provide an accurate and actionable prediction for each individual cycle. The majority of members will see a prediction window of +/- 3 days or less.

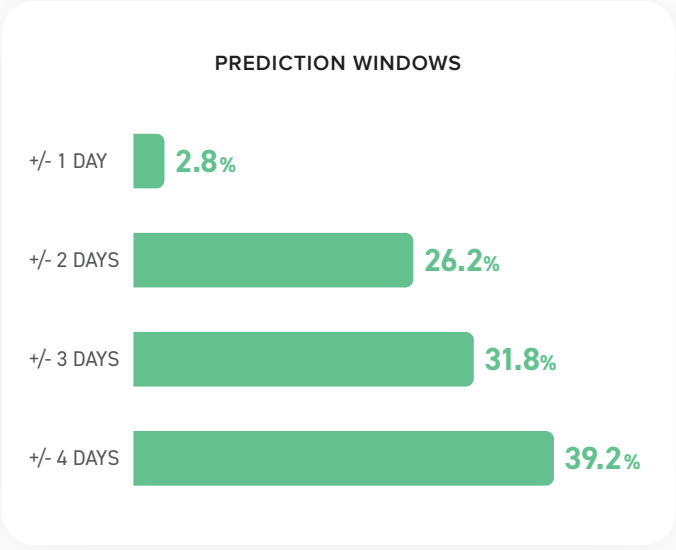
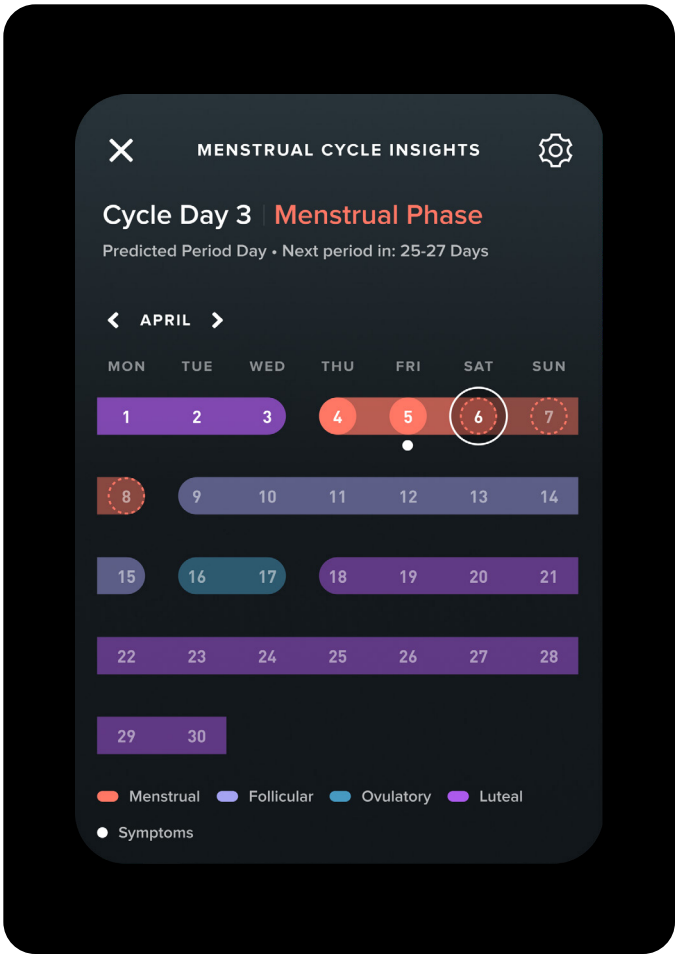


Figure 2: Distribution of menstrual cycle prediction window sizes.

These predictions are updated each day when a member receives a new Recovery or logs their menstruation status, which may result in an updated prediction window. The prediction window is displayed in the Menstrual Cycle Insights calendar, with dashed, circled dates representing the expected start of menstruation for up to three months of future cycles. Once the members log their actual start date, these circles turn to solid red markers, and WHOOP will adjust predictions for future cycles in the calendar.

In addition to predicting the next period, Menstrual Cycle Insights approximates and displays the menstrual, follicular, ovulatory, and luteal phases for each cycle. WHOOP predicts each phase's length by using expected luteal and follicular phase lengths from a study of over 600,000 menstrual cycles of various lengths and regularity.[16] The ovulatory phase is represented as a two-day transition period at the start of the luteal phase. This phase estimation is not an ovulation detector and should not be used for conception or contraception, but instead offers context into possible timing of ovulation and transition into the follicular phase.

The Menstrual Cycle Insights algorithm has built-in safeguards to ensure the most accurate predictions possible. Only cycles that are at least 15 days in length are used in the algorithm. Additionally, Menstrual Cycle Insights will pause new predictions if a member's ongoing cycle significantly exceeds the expected length for the member.



"By tracking [menstrual cycle] shifts, members can understand how changes correlate with their own feelings and symptoms, helping to optimize training and recovery."

Menstrual Cycle Insights Accuracy

WHOOP has evaluated the Menstrual Cycle Insights algorithms to ensure that members receive accurate and useful predictions. Prediction accuracy is defined as the percentage of actual menstrual cycle start dates, reported by members, that fall within the predicted menstrual cycle start window, and are evaluated at 10 days prior to the actual start date. Mean absolute error (MAE) is calculated as the average number of days between the predicted start date, or center of the prediction window, and the actual start date.

In validation across the WHOOP member population, the Menstrual Cycle Insights algorithm demonstrated high accuracy in forecasting cycle start dates. Menstrual Cycle Insights creates a period prediction window that varies in width to deliver the most useful information we have confidence in. For our dynamic windows, which span from one to four days before or after the singular predicted period date, our average accuracy is 69%. In the calendar, Menstrual Cycle Insights display the period start date with the highest likelihood of occurring, which is the center of the window. The majority of cycles (79%) begin within four days of this predicted point, with 72% occurring within three days.

Overall Accuracy

Mean Absolute Error [95% Confidence Interval]: 3.16 [2.81 - 3.52]

Population	Accuracy
Within 2 days of prediction	61.1%
Within 3 days of prediction	72.2%
Within 4 days of prediction	78.8%

Table 2: Accuracy of WHOOP menstrual cycle onset predictions over static error windows of 2, 3, and 4 days.

Accuracy Across Subgroups

Person-level Cycle Variability (days of variability)	Accuracy (+/- 3 days)	Mean Absolute Error [95% Confidence Interval]
Very Low (0-3)	84.7%	2.14 [1.58 - 2.69]
Low (3-5)	77.5%	2.54 [1.96 - 3.12]
Medium (5-7)	81.7%	2.13 [1.68 - 2.59]
High (7-9)	69.2%	3.31 [1.94 - 4.68]
Very High (9+)	64.8%	3.78 [2.91 - 4.65]

Table 3: Accuracy and mean absolute error in days of WHOOP menstrual cycle onset predictions by within-person cycle variability.

Menstrual Cycle Regularity as a Health Indicator

Menstrual cycle length and flow intensity offer valuable insights into hormonal balance and overall health. While 28 days is often cited as a typical cycle length, a normal cycle can vary significantly from person to person and even cycle to cycle. In healthy adults, a menstrual cycle typically lasts between 21 and 35 days, **with bleeding lasting up to 7 days**, and month-to-month variation in length of less than 7 days. These parameters define a typical menstrual pattern and can help to identify deviations that may warrant further attention.

Tracking cycle regularity is important as irregular cycles can be a sign of underlying health concerns. Some variability is expected — for example, adolescents and perimenopausal individuals often experience shifts in cycle timing. However, persistent irregularity outside of these contexts may indicate a need for further investigation. For example, conditions like polycystic ovary syndrome (PCOS) and thyroid disorders are known to disrupt the hormonal rhythms that regulate menstrual cycles. Additionally, lifestyle and environmental factors can impact cycle irregularity:

Psychological stress: Chronic stress can interfere with hormones that regulate the menstrual cycle, leading to missed periods or increased symptoms.[10]

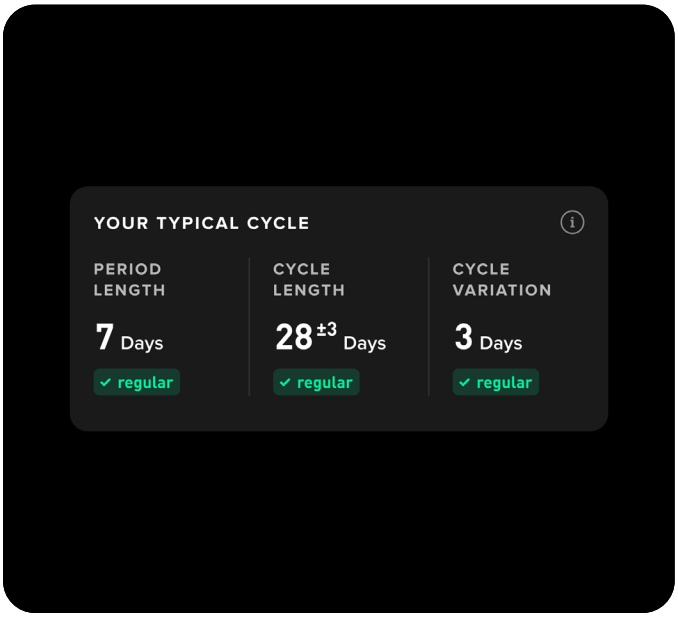
Nutrition and Body Composition: Both very low body weight (insufficient energy intake) and higher body weight can disrupt ovulation and menstruation.[17]

Physical Stress (Exercise): Over-training and high-intensity exercise can result in missed or irregular cycles due to energy deficits and physical load on the body.[17]

Air Travel and Time Zone Changes: Jet lag and shifts in circadian rhythms have been linked to longer menstrual bleeding and unpredictable cycle lengths.[18]

Menstrual Cycle Insights Feature: Cycle Patterns

Menstrual Cycle Insights helps members identify cycle changes by analyzing trends over the past six months. The 'Cycle Patterns' section provides members with key statistics — period length, cycle length, and cycle variation — offering a clear overview of their menstrual trends. If these values fall outside the ranges defined by clinical guidelines, they are flagged as "irregular".[19] To ensure accuracy, a cycle is only included in the cycle length and variation calculation if both a start and end date for the menstrual cycle are logged in the WHOOP app, and the cycle is at least 15 days in length. In order to see an accurate period length calculation the member should log all days of bleeding, as the algorithm does not fill in gaps for period length. Ensuring complete data entry allows for precise summary statistics for a member's typical cycle. When cycle statistics move beyond clinical guidelines, alerts within Menstrual Cycle Insights' 'Cycle Patterns' can help members to identify changes that might have otherwise gone unnoticed.



Menstrual Cycle Insights Feature: Cycle Metrics

The Menstrual Cycle Insights feature includes a 'Cycle Metrics' view, which allows members to understand how their physiological metrics are changing within the context of their current menstrual cycle. This view presents smoothed data for key metrics — Skin Temperature, Resting Heart Rate (RHR), Heart Rate Variability (HRV), and Recovery — all of which are known to fluctuate across the menstrual cycle. These metrics are displayed for each day of the menstrual cycle, with the cycle phases and expected trend overlaid for additional context. Members can also toggle between their current cycle (up to three months in length) and a view of the past three months to observe longer-term patterns.

The 'Cycle Metrics' view tailors population-level trends to each individual. By tracking these shifts, members can understand how these changes correlate with their own feelings and symptoms, helping to optimize training and recovery.

Members using hormonal birth control will not see cycle phases overlaid on their data, but bleeding will still be displayed. Since hormonal birth control changes the relationship between the menstrual cycle and biometric trends like HRV, RHR, skin temperature, a member on hormonal birth control may see a weaker pattern in their data.[20] However, tracking this data over time may still provide insights into individual trends across the menstrual cycle.

To get the most out of Menstrual Cycle Insights, continuous wear of the WHOOP device — especially at night — is recommended. Gaps in data due to inconsistent wear will result in missing information within the graphs.

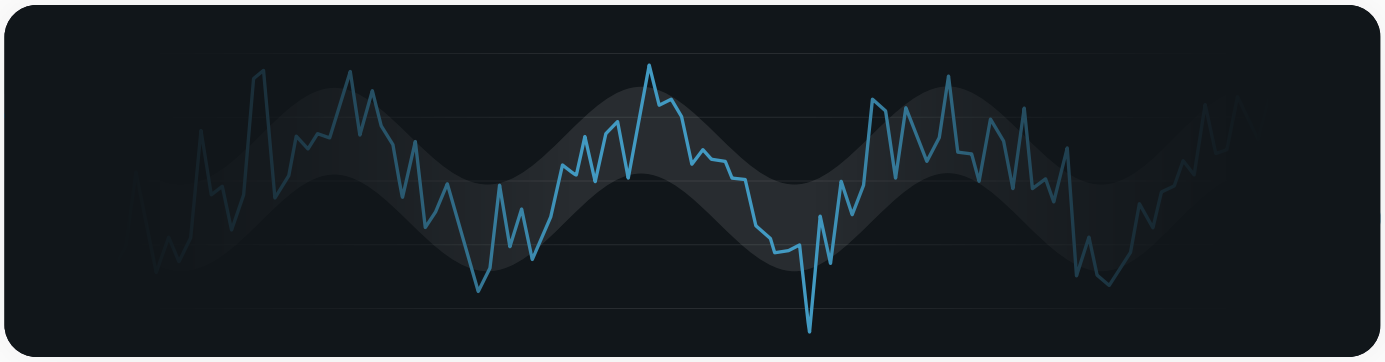


Figure 3: Smoothing daily WHOOP data into underlying trends for each menstrual cycle.

Symptoms Across the Menstrual Cycle

Beyond logging menstruation itself, many individuals track symptoms that align with different phases of the menstrual cycle. In the past year, 69% of female members on WHOOP journaled at least one cycle-related symptom. Among those who log symptoms, over half track three or more cycle-related symptoms, with bloating, menstrual cramps, and mood swings being the most frequently logged.

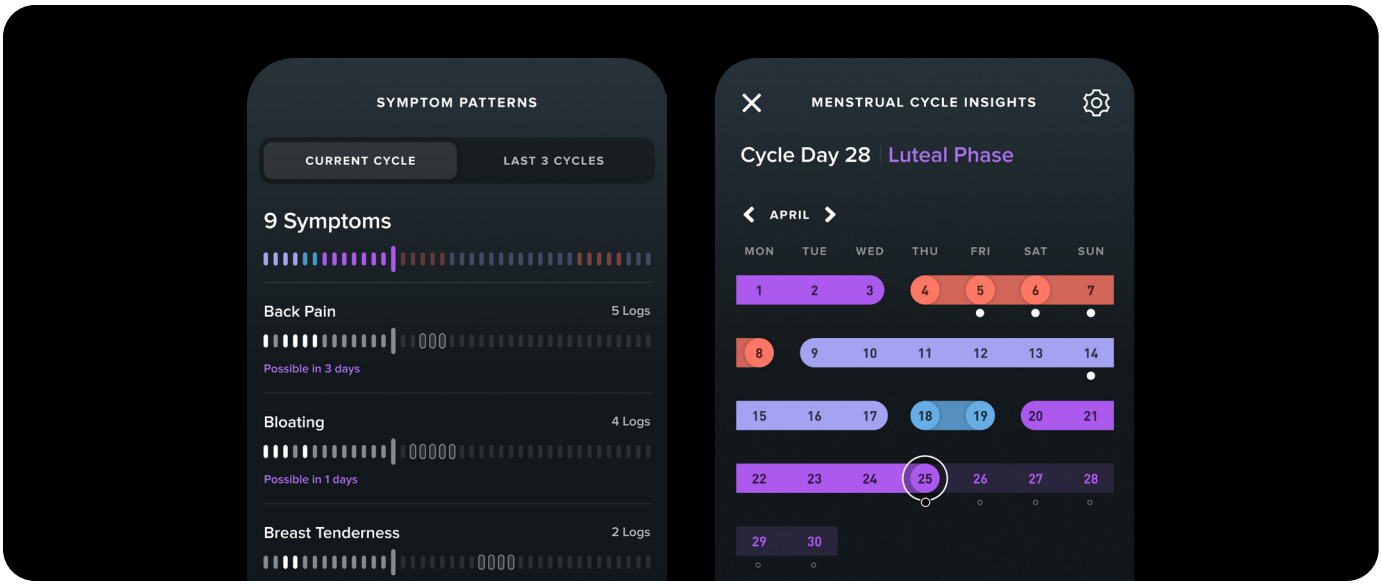
While symptom tracking is common, symptom experiences are highly individualized. Symptom type and severity vary both across individuals and among a person's own cycles, driven in part by hormonal fluctuations across each phase of the menstrual cycle. For those using hormonal birth control, symptoms such as acne or mood changes may still occur, though their timing and expression can differ by contraceptive type and an individual's physiology. Additional factors such as stress, sleep, BMI, and physical exertion can also play a role in the severity of these symptoms.[21-23]

PHASE	MENSTRUATION	FOLLICULAR	OVULATION	LUTEAL
TYPICAL SYMPTOM INTENSITY	High	Low	Mixed	High
REPORTED SYMPTOMS	• Menstrual Cramps • Fatigue • Headaches • Back Pain • Mood Swings	• Improved Energy Level • High Sleep Efficiency	• Bloating • Increased Libido • Pelvic Pain	• Food Cravings • Fatigue • Bloating • Breast Tenderness

Figure 4: Symptoms across the menstrual cycle

Experiencing symptoms that are passing and mild during the menstrual cycle is normal. However, for an estimated 18% of people who menstruate, these symptoms are more intense. These heightened symptoms can interfere with daily life and may require clinical treatment.[24] If symptoms suddenly worsen, disrupt daily activities, or persist beyond a few days, consider consulting with a healthcare professional.

Menstrual Cycle Insights Feature: Symptom Patterns



Within Menstrual Cycle Insights, Symptom Patterns helps members understand when cycle-related symptoms may occur.

Similar to cycle predictions, Symptom Patterns utilizes each member's individual symptom logs to highlight unique symptom timing and variability. While some members may experience a symptom, such as bloating, around menstruation, others may find that symptom clusters around ovulation. Symptom Patterns accounts for these differences to continuously refine personalized predictions.

To be eligible for predictions of a supported symptom, a member must log one occurrence of that symptom within a completed menstrual cycle (between 15-50 days). Once there is sufficient journal data to identify symptom patterns, members can view both historical symptom logs and predicted symptom windows in the 'Symptom Patterns' tab. Additionally, in the Calendar view, the 'Possible Symptoms Today' tile lists the symptoms that a member is most likely to experience given where they are in their menstrual cycle, allowing for a better understanding and planning around personal patterns.

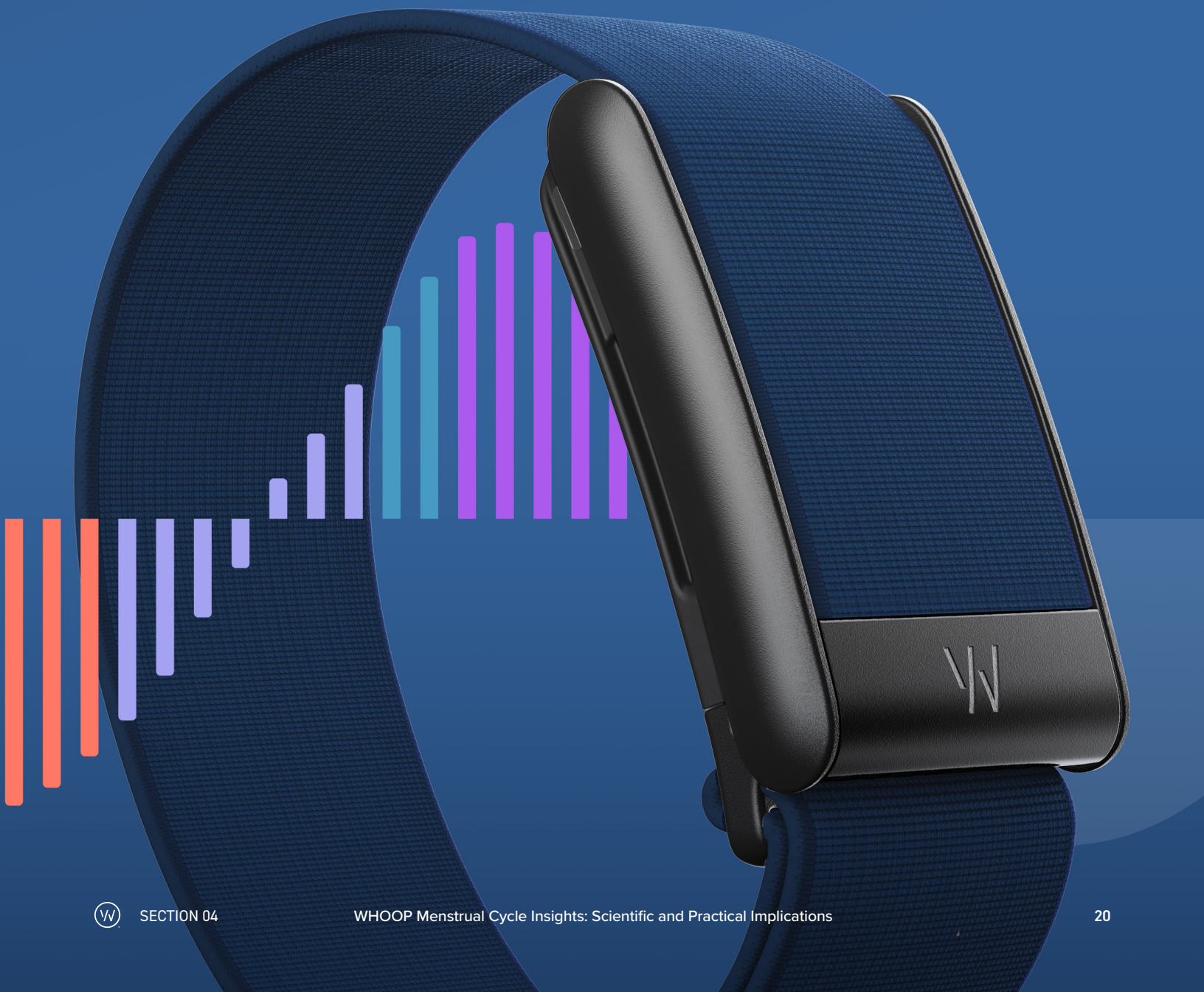
Symptom Patterns supports everyone experiencing cycle-related symptoms, including those using hormonal birth control, offering a comprehensive view of cyclical impacts.

Members can log and view Symptom Patterns for over 40 symptoms, and receive predictive insights for the majority of symptoms, including:

- Acne
- Back Pain
- Bloating
- Brain Fog
- Constipation
- Decreased Libido
- Fatigue
- Gas
- Menstrual Cramps
- Mood Swings

SECTION 04

WHOOP Menstrual Cycle Insights: Scientific and Practical Implications



Conclusion

The Menstrual Cycle Insights feature enhances traditional tracking methods by leveraging continuous WHOOP data — resting heart rate, heart rate variability, skin temperature, and more — to deliver a personalized view of each individual's unique cycle. By highlighting potential changes in cycle length, intensity, and biometric fluctuations, Menstrual Cycle Insights empowers members to take proactive steps toward managing stress, adjusting exercise and sleep habits, and seeking professional guidance when necessary.

The smoothed "Cycle Metrics" and phase-based insights also offer visualization trends over time. By combining continuous physiological monitoring with data-driven insights, WHOOP Menstrual Cycle Insights provides a proactive approach to long-term wellness and menstrual cycle tracking.

Limitations of Menstrual Cycle Insights

Menstrual Cycle Insights provides menstrual bleeding onset and phase predictions for anyone experiencing menstrual bleeding, though a variety of factors can affect accuracy:

Cycle Regularity: Individuals with highly variable cycles may experience less precise predictions. The Menstrual Cycle Insights feature will adjust the width of the prediction window to each member's unique logged cycle history.

Perimenopause: Perimenopause is the period of time leading up to an individual's last menstrual period, or entrance into menopause. During this time, women often experience more variable menstrual cycles and changes in the underlying hormones that drive these cycles. These underlying trends may influence predictions as the underlying physiological signals may be weaker or more erratic in this period of transition.

Hormonal Birth Control: Members using hormonal contraceptives, such as the birth control pill, an IUD, or 'the patch', may have a different Menstrual Cycle Insights experience. In several cases, such as for those taking a continuous birth control pill or an IUD, periods may be entirely absent. For those on cyclic methods such as a 28-day birth control pill or a vaginal ring who still experience withdrawal bleeds, Menstrual Cycle Insights can track cycle patterns, but the biometric signals may not show the same clear cycle shifts as people who are naturally cycling due to external hormone regulation.[20,25] For members on hormonal contraceptives, the Menstrual Cycle Insights feature remains available for logging bleeds, tracking symptoms, and understanding the connection to WHOOP metrics, however predictive accuracy may be lower.

Limited WHOOP data: For the most accurate predictions, continuous wear of WHOOP is required to record subtle changes in nightly physiological measures.

Incorrect cycle data: These predictions depend on confirmation of a menstrual cycle and logging menstrual bleeding. Confirming the start of a menstrual period in either the Menstrual Cycle Insights feature or the journal increases the accuracy of summary statistics and phase and period predictions.

There are also limitations to the predictions and features offered within Menstrual Cycle Insights, including but not limited to:

Fertility and Conception: Menstrual Cycle Insights should not be used for birth control or fertility tracking. The ovulatory phase indicators are estimates only.

Medical Disclaimer: Menstrual Cycle Insights is not a medical device and cannot diagnose or manage medical conditions. It does not provide medical advice. Always consult your doctor for health concerns and never delay or modify medical care based on its information.

Within a diverse population of WHOOP members, including those on hormonal birth control, with limited data, and with irregular cycles, the majority of menstrual start dates fell within the forecasted window, with an average error of only a few days. These results are on par with or better than other cycle prediction tools that rely solely on calendar-based methods. As WHOOP continues to collect more data and member feedback, the Menstrual Cycle Insights algorithms will be refined to further improve accuracy, particularly for irregular cycles and diverse member profiles.

Glossary

Menstruation (Period): The shedding of the uterine lining (menstrual bleeding) that marks the start of a new cycle, typically lasting a few days.

Follicular Phase: The first half of the menstrual cycle (starting with menstruation) when hormone levels are relatively low initially and then estrogen rises, leading up to ovulation.

Ovulation: The mid-cycle transition when an ovary releases an egg. The five days leading up to ovulation, and the day after ovulation are generally considered the fertile window, but it can be variable within person.[26]

Luteal Phase: The phase after ovulation (second half of the cycle) when progesterone is high, preparing the body for a possible pregnancy; if no pregnancy occurs, hormone levels drop to trigger menstruation.

Premenstrual Syndrome (PMS): A group of physical and emotional symptoms (such as mood swings, bloating, and irritability) that occur in the week before menstruation and end after a period starts for at least three consecutive cycles.[27]

Premenstrual Dysphoric Disorder (PMDD): A severe form of PMS involving intense mood changes (such as depression, anxiety, and irritability) in the week or two before menstruation.[27]

Polycystic Ovary Syndrome (PCOS): A hormonal disorder causing irregular menstrual cycles and often the development of multiple small ovarian cysts. PCOS can also lead to symptoms like acne, abnormal hair growth, weight gain, and elevated androgens.[28]

Endometriosis: A condition in which tissue similar to the lining of the uterus grows outside the uterus (for example, on ovaries or other organs), causing cramps, heavy periods, and in extreme cases, fertility issues.[29]

Basal Body Temperature (BBT): The body's lowest resting temperature, measured immediately after waking up. BBT rises slightly after ovulation, so tracking it daily can help to confirm that ovulation has occurred.

Luteinizing Hormone (LH): A reproductive hormone that surges to trigger ovulation. Ovulation predictor kits (at-home tests) detect this LH surge as a signal that ovulation is about to occur.

Perimenopause: The transition phase before menopause, typically starting in one's late 40s, during which hormone levels become more erratic and menstrual cycles change in length. This stage typically lasts between 4-8 years, until menopause is reached.[30]

Menopause: Menopause typically occurs between age 45 and 55 and marks the end of reproductive years. Menopause is officially reached after 12 consecutive months with no period.[31]

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