

# Oura Ring 4

**Category:**

Best Digital Health Solution

**Company Name:**

ŌURA

**Number of employees:**

501-1000

**Turnover and/or Funding:**

\$200M series D

**Product/Solution Name:**

Oura Ring 4

**Corporate Name:**

Oura Health

**Date of Approval:**

2024-10-15

**Indications:**

N/A

**Therapeutic Areas:**

Oura Ring 4 supports multiple therapeutic domains through passive, continuous biometrics, bridging the gap between healthcare systems and members.

Key domains include:

Cardiovascular Health: Oura Ring 4 monitors heart rate variability, resting heart rate, Cardio Capacity, and can even estimate member Cardiovascular Age. The enhanced Automatic Activity Detection (AAD) feature now includes heart rate zone tracking across

more than 40 different activities, providing users with comprehensive cardiovascular insights when exercising. This continuous monitoring helps members regulate cardiac output, increase VO2 max, and improve overall fitness while enabling early detection of cardiovascular irregularities.

**Sleep:** Oura Ring 4 provides detailed sleep tracking data on sleep stages, efficiency, and restfulness to help users understand the relationship between daily activities and sleep recovery. The ring features one of the most accurate sleep staging algorithms available in a consumer wearable, achieving 79% agreement with polysomnography (PSG) for 4-stage sleep classification.

**Reproductive Health:** In 2024 alone, introducing four women's health features in a span of six months. Pregnancy Insights provides pregnant members with a detailed view of their pregnancy journey, including gestational age tracking and educational content about sleep and vital signs throughout pregnancy. Cycle Insights also offers users more detailed information about their menstrual cycles, including cycle regularity, cycle variability, and period length. The Cycle Insights Share Report allows women to easily share their cycle data, tags, and vital health patterns with medical professionals and empowers them to drive their reproductive care conversations. The latest addition to ŌURA's reproductive health offering, Fertile Window, offers all Oura Members using Cycle Insights a view of their estimated fertile days, chance of conception at that time, and detected day of ovulation, giving them more information about their chances of getting pregnant throughout their cycle.

**Mental Health:** Daytime Stress offers users more context on how members' daily habits affect stress levels and recovery. Members can see daily movement, activities, and tags in the context of their Daytime Stress, helping them better understand the physiological impact of different behaviors and develop effective stress management strategies.

**Metabolic Health:** This year, ŌURA also expanded into metabolic health through partnership with Dexcom, allowing members to integrate 24/7 glucose feedback within the Oura App. This integration helps members understand the interplay between meals, stress, activity, and glucose levels, supporting diabetes management and metabolic optimization.

This comprehensive therapeutic approach positions Oura Ring 4 as a versatile device that bridges consumer accessibility with clinical-grade insights across multiple health domains.

## **General Information File Document upload:**

N/A

## **Background information and need for drug / device:**

ŌURA Ring 4 was developed in response to rising healthcare fragmentation, limited provider access, and growing patient demand for meaningful, everyday insight into their health. ŌURA closes this gap, serving as a trusted health companion that members wear daily.

Healthcare accessibility remains fundamentally compromised for vulnerable populations. Rural communities, elderly individuals, and economically disadvantaged groups lack access to regular healthcare monitoring due to geographic, economic, and systemic barriers. Women's health exemplifies these disparities on a global scale with over 1.5 billion women worldwide lacking access to crucial health screenings, with fewer than 60% receiving regular medical check-ups. Current reproductive health restrictions, persistent racial disparities, exclusion from medical research, and widespread medical dismissal compound these challenges.

Additionally, sleep disorders affect millions globally, yet remain largely undiagnosed due to the inconvenience and cost of traditional sleep studies. Without accessible, long-term sleep monitoring, conditions that significantly impact overall health, cognitive function, and quality of life go untreated. Similarly, despite heart disease remaining the leading cause of death globally, continuous cardiovascular monitoring outside clinical settings has been severely restricted. Most people lack access to regular heart rate variability tracking, missing critical opportunities for early intervention.

Perhaps most critically, traditional healthcare models rely heavily on periodic check-ups and symptomatic presentations, often resulting in delayed diagnoses when conditions are more advanced and harder to treat. The need for continuous health monitoring that can detect physiological changes before symptoms appear represents a fundamental gap in preventive healthcare.

These interconnected healthcare challenges create an urgent need for revolutionary wearable solutions. Despite widespread adoption of fitness trackers and smartwatches, a significant technology gap persists. Most existing solutions fail to provide meaningful insights, focusing instead on basic step counting and generic activity goals. Users frequently abandon these devices due to comfort issues, poor battery life, and lack of actionable health guidance, creating a substantial disconnect between device adoption and sustained health improvement.

In this landscape, Oura Ring emerges as a vital tool for supporting preventive health and health equity. The brand's reach is significant, with 2.5 million users worldwide and a growing pool of data including over 10 billion hours of wear time and 2.3 billion hours of sleep tracked, demonstrating exceptional user engagement that generates unprecedented longitudinal health insights. Notably, ŌURA has made significant investments in women's health, leading to a demographic shift where 59% of its members now identify as female. This momentum is further evidenced through the

brand's partnership with Natural Cycles, which has seen a usage increase of over 350% since its launch in August 2022. As of March 2024, 30% of female members in their thirties and 41% in their twenties were utilizing this integration, highlighting ŌURA's role in providing accessible, data-driven reproductive health insights.

## **Background File Document upload:**

**[Press Kit Oura Backgrounder June 2025.pdf](#)**  
**[Oura Ring 4 Fact Sheet.pdf](#)**

## **History of the development of the solution/product:**

With over 2.5 million users and 75+ peer-reviewed studies, ŌURA is scaled for patient impact and is the powerhouse for health research as a passive, scalable, and non-invasive tool. The next phase involves expanding regulatory pathways and deepening integrations with healthcare systems. ŌURA has already received a \$75M investment from Dexcom to integrate data from Stelo, the first FDA cleared glucose biosensor available without a prescription in the U.S., with Oura Ring.

ŌURA's extensive involvement in research not only demonstrates the device's robust scientific validity but also highlights its broad clinical utility across diverse healthcare applications. One study led by ŌURA medical advisor Dr. Rebecca Robbins and a team at Harvard Medical School found that the Oura Ring was the most accurate consumer wearable for sleep staging, outperforming the Apple Watch Series 8 and Fitbit Sense 2. The Oura Ring demonstrated higher sensitivities in detecting sleep stages and wakefulness, without significant underestimation or overestimation, affirming its precision in a key health domain.

Beyond clinical settings, real-world evidence provides compelling support for the Oura Ring's effectiveness. With over 13.5 billion hours of wear time across more than 2.5 million users worldwide, the device has generated unprecedented longitudinal health data. This extensive real-world usage underscores its practical utility and widespread user acceptance. User testimonials further illustrate its potential for early health issue detection, with stories like Paralympic athlete Hunter Woodhall crediting his Oura Ring for alerting him to symptoms leading to an emergency appendectomy, and nurse practitioner Nikki Gooding's early lymphoma detection prompted by persistent Oura alerts.

Oura Ring 4's use of Smart Sensing technology represents a crucial breakthrough in personalized health monitoring. This proprietary algorithm is the result of extensive research into individual physiological variation, directly addressing the limitations of one-size-fits-all approaches in wearable technology. Smart Sensing significantly enhances personalization and accuracy by more than doubling available signal pathways from 8 to 18 compared to previous generations.

The iterative development process, from Oura Ring Gen3 to Oura Ring 4, embodies continuous refinement. Each generation incorporates invaluable lessons learned from extensive real-world use, rigorous clinical research findings, and cutting-edge technological advancements. This ongoing evolution ensures improved accuracy, enhanced comfort, and expanded functionality, consistently maintaining clinical utility while delivering an ever-improving user experience.

## **Development File Document upload:**

[\*\*ouraring.com/Inside the Ring The Making of Oura Ring 4.pdf\*\*](#)

## **Why this drug or device is innovative, the broad implications for future research, and/or how it will improve the human condition:**

Oura Ring 4 represents a significant leap in wearable health technology, embodying ŌURA's mission to help people live healthier, longer lives. Its 2024 launch brought innovations that redefine personal well-being monitoring.

A core advancement is Smart Sensing technology, powered by algorithms that adapt to each user's unique finger physiology. With an expanded 18 signal pathways, more than doubling Oura Ring Gen3, it ensures unparalleled accuracy and continuous data collection while optimizing battery life up to 8 days. This adaptable precision sets a new industry standard.

The Oura Ring 4 now monitors over 30 biometrics, offering a truly comprehensive health view. Notable software enhancements include the addition of Fertile Window to Cycle Insights, providing detailed ovulation and conception probability. Automatic Activity Detection (AAD) has been enhanced with automatic heart rate zone tracking across 40+ activities, offering deeper insights into exercise intensity without manual logging. The Daytime Stress feature has also been refined, allowing users to contextualize daily habits against their stress levels and recovery.

Beyond software, Oura Ring 4's physical design is optimized for comfort and durability. Its full titanium construction and redesigned interior with recessed optic lenses ensure a comfortable, 24/7 wear experience crucial for comprehensive data collection. The expanded size range (4-15) and six stylish finishes cater to a wider user base, making the ring more accessible for continuous wear and therefore, continuous data.

The accompanying redesigned Oura App enhances user experience with intuitive \"Today,\" \"Vitals,\" and \"My Health\" tabs for easy access to insights and trends. Battery life has also seen substantial improvement, extending up to eight days, complemented by a redesigned, more stable charging experience.

Oura Ring 4's innovation fundamentally lies in its philosophy of balanced wellness,

moving beyond simply pushing users to \"do more.\" It fosters a harmonious relationship between activity, rest, and recovery, emphasizing personal equilibrium over maximal output.

What truly sets Oura apart is its ring form factor, which allows for highly accurate physiological data capture directly from the finger, a site rich in arterial blood flow and consistent temperature. This provides a more reliable signal for critical metrics like heart rate variability and body temperature compared to wrist-based devices, making it a trusted, validated research tool. Furthermore, Oura prioritizes passive, continuous monitoring that integrates seamlessly into daily life without constant interaction, fostering a deeper, less intrusive relationship with health data. This unique combination of advanced sensing, a comfortable and continuous wear experience, and a focus on personalized, actionable insights rather than just raw data, positions Oura as a leader in truly empowering self-awareness.

## **Innovation File Document upload:**

**[businesswire.comOURA Secures 200 Million in Series D Funding 1.pdf](#)**

## **Please provide appropriate references (PubMed, Abstract, Website):**

### **Sleep Research:**

A study led by Oura medical advisor Dr. Rebecca Robbins and a team of researchers at Harvard Medical School found that the Oura Ring Gen3 was the most accurate consumer wearable for sleep staging, outperforming the Apple Watch Series 8 and Fitbit Sense 2 in detecting sleep stages and wakefulness, with higher sensitivities and no significant underestimation or overestimation of sleep stages.

### **Illness Detection Research:**

Oura Ring has been used in illness-detection research, including in studies at UCSF (published / peer-reviewed), Rockefeller Neuroscience Institute, and DTRA / DIU. ŌURA believes research is crucial to the growth of the wearable industry, and the company will remain committed to supporting independent research.

In June 2024, using 5 million nights of sleep data collected from Oura Rings, researchers at UCSD published findings that sleep phenotypes are dynamic over time, and these dynamics contain information relevant to health conditions. The study found sleep quality and dynamics are relevant to cardiometabolic and respiratory health, which have significant differences in distribution between the months before and weeks around COVID-19, flu, and fever diagnoses.

In February 2022, researchers at UCSF published additional findings that Oura Ring temperature and heart rate data may also help predict levels of protection (antibodies)

by reading how our bodies respond to vaccines.

The ŌURA science team published findings in the peer-reviewed journal Digital Biomarkers from a study analyzing COVID infection responses across age groups, variants, and vaccination status using Oura Ring.

#### Women's Health Research:

ŌURA has also put a focus on women's health research to serve a traditionally underserved market in wearables. Collaborating with the University of California San Diego, University of California, Berkeley, and the University of California, San Francisco in studies around women's reproductive health, researchers found continuous temperature tracking technology by the Oura Ring can help spot hormonal changes in women's bodies that can indicate pregnancy or key events in the menstrual cycle like ovulation.

ŌURA has since expanded this research to include additional female populations, including those with irregular cycles and those who are pregnant. In a recent study, the research team found Oura Ring metrics, specifically skin temperature, metabolic activity, physical activity levels, and sleep patterns, were useful in predicting labor onset with 71% accuracy.

In October 2024, Oura published its first-ever Perimenopause Report analyzing data from 100,000+ female members to examine perimenopause's daily impacts. Findings confirm perimenopause causes physical and mental changes that can affect women's daily lives.

#### Medical Advisors:

Dr. Rebecca Robbins, PhD (Sleep Scientist)

Dr. Jake Deutsch, MD (Board-certified Emergency Medicine Physician)

Dr. Elissa Epel, PhD (Health psychologist and researcher at the University of California, SF)

Dr. Eleni Jaswa, MD, MSc, FACOG (Board-certified ObGyn Reproductive Endocrinologist and Fertility Specialist at the University of California, SF)

Dr. Andy Walshe, PhD (Human Performance Expert)

Sara Szal, MD (Physician, Researcher)

Michael WL Chee, MBBS, FRCP (Edin) (Professor and Director, Centre for Sleep and Cognition)

Jagmeet (Jag) P. Singh, MD, ScM, DPhil (Professor, Cardiology)

#### Team Research / Behavioral Health Experience:

Shyamal Patel, Senior Vice President of Science

Neta Gotlieb, PhD, Senior Product Manager, Women's Health, and Research Scientist

Alicia Clausel, Clinical Research Scientist

Raphael Vallat, Staff Machine Learning Scientist

Max de Zambotti, Senior Manager, Health Science

Pauli Ohukainen, Staff Research Scientist

Heli Koskimäki, Senior Director, Future Physiology

Mari Karsikasm, Senior Director, Product Science  
Sofia Strömmmer, Senior Behavioral Scientist  
Ricky Bloomfield, Chief Medical Officer

**References File Document upload:**

N/A