Advancing Human Health with Oura

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Letter from Tom Hale, CEO

Scaling Our Impact

At Oura, we're guided by a simple but profound belief: that people can, and should, take control of their health through daily practices. Since day one, Oura has been dedicated to health, rooted in science, driven by data, and designed to empower individuals. From our early beginnings in Finland to the global platform we are today, we have focused on making it easy for people to engage with their health in a meaningful, proactive way.

This commitment has resonated. Our data show that Oura Members spend 23.5 hours a day wearing Oura Ring and open their app 3.2 times per day, a particularly high level of engagement in our industry. This level of trust and daily interaction speaks to the value our members place in Oura and the role it plays in their lives. Central to earning that trust is our unwavering focus on privacy: We make member privacy a priority, never share personal data with third parties without explicit consent, and adhere to strict privacy laws like GDPR and HIPAA. I am immensely proud to lead a company that puts scientific integrity, thoughtful user experience, privacy protection, and member satisfaction at the heart of all that we do.

What means the most to me, though, are the stories we consistently receive from members leveraging Oura to manage chronic conditions, reduce stress, improve heart health, support their reproductive journeys, and add healthy years to their lives. These stories are powerful reminders that Oura is not just a wellness tool, it's also a healthcare companion.

That's why our next chapter focuses on scaling our impact to support healthcare delivery is a natural evolution of the work we've always done. Over the past year, we have invested in expanding access to Oura Ring through partnerships with insurance providers like Essence Healthcare. We have incorporated glucose biosensor data into our experience with Stelo by Dexcom. We've made a public commitment to support Medicare and Medicaid beneficiaries alongside the U.S. Department of Health and Human Services and Centers for Medicare and Medicaid. We are building a network of virtual connected care partners like Maven Clinic and Midi Health. And we are having promising conversations with large health systems about how Oura data can contribute meaningfully to clinical care.

As we expand our partnerships and access networks, our foundational values remain unchanged. We want to be the most trustworthy, beloved digital health partner for everyone. Stay tuned – our journey to help people take control of their health every day is only accelerating.

Tom Hale
Chief Executive Officer, Oura

Letter from Ricky Bloomfield, Chief Medical Officer

As both a physician and clinical informaticist, I have spent over 15 years working to bridge the divide between the promise of digital innovation and the realities of clinical care. My career has been grounded in a deep commitment to closing gaps in healthcare access, outcomes, and information, always with the patient at the center. I have worked to empower patients by championing healthcare data standards and helping make their health records more interoperable, portable, and complete. We have made real progress: It is easier than ever for patients to securely access their health records, which gives them even greater transparency into their clinical health history.

But even with a fully connected, longitudinal health record, clinicians still don't have the whole picture of someone's life. That is because people spend the vast majority of their lives outside the four walls of the healthcare system. Information like sleep quality, recovery patterns, stress responses, and daily fluctuations in heart rate go unmeasured and unaccounted for in traditional care models. These aren't just wellness metrics; they are powerful indicators of someone's health trajectory, often revealing changes well before a clinical condition becomes outwardly apparent.

This is where Oura comes in. We believe the future of healthcare lies in combining trusted clinical data with continuous, real-world physiological insight. Oura Ring offers a window into a person's health that complements clinical care, capturing key indicators like heart rate, sleep, activity, and temperature trends with clinical-grade precision. For care teams, this means more context and better-informed decisions. For patients, it means more agency, bodily awareness, and support in between encounters. We are building for a variety of use cases, including women's health, metabolic health, cardiovascular health, and more.

We know that integrating wearable data into clinical workflows hasn't always been easy. There have been some attempts, but not every technology has delivered actionable value. I believe that now is the moment it can work. Patients are already using wearables to monitor their health activities and change their behavior. Providers are asking for better tools to promote prevention, curb chronic disease, reduce costs, and aid recovery. Breakthroughs in AI, data infrastructure, and health science have made these goals both scalable and clinically meaningful. At Oura, we are doubling down on this opportunity with rigor and a clear focus on outcomes. Our research pipeline is robust, our validation efforts are expanding, and our commitment to quality is unwavering. We are not interested in being another device; we are here to be a trusted partner in care.

Let's reimagine what it means to deliver proactive, connected, and human-centered care, together.

Ricky Bloomfield, MD
Chief Medical Officer, Oura

Executive Summary

With over a decade of innovation, Oura has transformed how people understand and manage their health. Trusted by millions of people across more than 150 countries, Oura has tracked over 2.3 billion hours of sleep, launched four generations of hardware, and delivered 50+ science-backed features. Worn an average of 23.5 hours per day, Oura Ring seamlessly integrates into daily life, capturing a full spectrum of health signals with clinical-grade accuracy. Oura is redefining the role of wearables — not just in wellness, but in care delivery itself.

There is a growing opportunity to bridge the gap between everyday life and clinical care. Members can take control of their health through self-monitoring and care teams can benefit from both acute and longitudinal Oura data. Tools like Symptom Radar surface physiological changes before symptoms are even felt, while features such as the Shareable Report make it easy to bring health insights from home into clinical conversations. When clinicians and patients have a mutually agreed upon and shared view of Oura data over time, they can make more informed and collaborative decisions.

Oura is already driving impact across major areas of healthcare. In women's health, we provide accurate cycle and ovulation tracking, pregnancy insights, and perimenopause support alongside our connected care partners. To support cardiovascular health, Oura tracks key metrics including heart rate, heart rate variability, and VO2 max, and also estimates a Cardiovascular Age score. Oura has made strides in metabolic health, integrating with the Stelo Glucose Biosensor, which helps members visualize the link between lifestyle behaviors and glucose level response within the Oura App. Features like Daytime Stress help members understand how stress affects their health and in-app meditation content enables users to relax and build resilience strategies. And last but not least, sleep health, which is foundational to Oura and human health, has expanded beyond providing nightly data with research-proven accuracy of quality and duration.

Oura is expanding access to our product through partnerships with payers such as Essence Healthcare, making Oura Ring available with sponsored programs for eligible members. Eleven percent of Oura Members are healthcare providers and we continue to invest in supporting clinician wellness, giving frontline professionals tools to monitor their own recovery and reduce burnout.

Scientific rigor remains central to Oura's mission. Our in-house research team collaborates with leading institutions around the world, including Stanford, Mayo Clinic, and the National University of Singapore to advance the accuracy of our algorithms and push forward new clinical use cases for Oura data. Our effort to date shows that Oura Ring is a trusted tool in clinical research worldwide and has been used in over 170 peer-reviewed research studies.

As healthcare shifts toward more personalized, proactive, and data-driven models, Oura stands at the forefront, bridging the divide between daily life and clinical care, and unlocking new possibilities for healthier lives.

Introduction

We are on a mission to revolutionize health, one person at a time. Over the years, we have dedicated ourselves to advancing the science of wearable technology and empowered millions of people to better understand and improve their wellbeing. Our work spans multiple dimensions of health — including sleep, women's health, mental health, metabolic health, and cardiovascular health — delivering actionable insights through a device designed to fit seamlessly into everyday life. By combining cutting-edge sensors with sophisticated algorithms, we translate complex data into clear, meaningful guidance that helps our members make informed decisions about their health.

We're equally committed to supporting providers and researchers on the front lines of healthcare. Through robust data, collaborative research, and innovative partnerships, we're helping clinicians detect early signs of health changes, enhance preventative care, and engage patients in meaningful ways for the long term. Our collaborations with leading research institutions and healthcare organizations are deepening our collective understanding of health at both the individual and population levels. By bridging the gap between personal wellness and clinical insight, we can help create a healthier, more informed world for everyone.

Meet Oura

Oura delivers personalized health insights, actionable data, and daily guidance through Oura Ring, the world's leading smart ring designed to help people live healthier, longer lives. By providing science-backed insights and data-driven recommendations, Oura empowers individuals to understand their bodies on a deeper level, making wellness, recovery, and personal care an integral part of everyday life. Today, millions of Oura Members around the world rely on Oura Ring as their trusted health companion, meeting them wherever they are on their wellness journey.

We are dedicated to building the most accurate and scientifically validated smart ring on the market. The lightweight and comfortable Oura Ring is rigorously validated against clinical gold standards and delivers continuous monitoring across more than 50 distinct health and wellness metrics. As a result of our dedication, over 800 partners across healthcare delivery, research organizations, and wellness trust Oura.

Oura by the numbers:

Members in
150 countries

4 generations
of hardware launched

Over 50
unique health-enhancing features delivered

2.3 billion
hours of sleep tracked

Oura Ring

Oura Ring is a convenient, comfortable, and accurate way to track health data that fits into life without disrupting it. Oura Ring is unique because:

- By reading directly from the arteries in the finger, Oura Ring captures a stronger, clearer PPG signal than wrist-worn devices that only measure capillary blood flow.
- The battery can last up to 5-8 days on a full charge
- It is water-resistant up to 100 meters (~330 feet), allowing users to bathe, swim, wash dishes, and do almost anything with their Oura Ring that involves water
- It is beloved by members, who wear Oura Ring an average of 23.5 hours per day

An independent peer-reviewed study published in Physiological Reports found that Oura Ring Gen3 and Oura Ring 4 consistently showed the strongest agreement for both HRV and RHR CCC measurements, outperforming other wearable devices.

Oura's accuracy

HEART RATE (HR)

99.9%

accuracy compared to ECG

HEART RATE VARIABILITY (HRV)

99.4%

accuracy compared to ECG

OVULATION DETECTION

96.4%

accuracy in estimating ovulation

SLEEP STAGING

79%

agreement with PSG for 4-stage sleep classification (wake, light, deep, and REM sleep) compared to 83% sleep stage agreement with traditional polysomnography

What does Oura Ring measure?

Oura Ring 4 captures 50 health and wellness measurements, metrics, and insights for members.

VITAL SIGN

- Heart rate
- Heart rate variability (HRV)
- Respiratory (breathing) rate
- Blood Oxygen Sensing (SpO2)
- Skin temperature

ACTIVITY

- Activity burn (calories burned during activity)
- Activity level
- Activity Score
- Activity tracking (AAD)
- Distance (workout)
- Inactive time
- Step count
- Total burn (calories burned through the day)
- Walking equivalency (distance)

GENERAL HEALTH

- Symptom Radar

HEART HEALTH

- Average heart rate (night)
- Cardio Capacity (VO2 max)
- Cardiovascular Age
- Lowest heart rate (night)

SLEEP

- Breathing Regularity
- Chronotype
- Restlessness
- Sleep duration
- Sleep efficiency
- Sleep latency
- Sleep Score
- Sleep stages (wake/light/deep/REM)
- Time in bed
- Sleep balance
- Sleep regularity

STRESS AND RECOVERY

- Activity balance
- Average HRV (night)
- Average respiratory rate (night)
- HRV balance
- Readiness Score
- Resilience level
- Restorative time
- Stress level
- Stress time
- Previous day activity

WOMEN'S HEALTH

- Cycle day
- Cycle Insights (period prediction)
- Cycle phase
- Fertile window
- Pregnancy Insights

Benefits of Oura Ring for Members

Within their first month of use, Oura members report significant benefits*

86%

IMPROVED OVERALL HEALTH

88%

IMPROVED SLEEP QUALITY

78%

IMPROVED STRESS MANAGEMENT

65%

IMPROVED DAYTIME FOCUS

79%

IMPROVED ENERGY LEVELS

*Based upon 417 responses, July 2025

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Our commitment to science

Over the past 10+ years, Oura has built a robust team of research scientists. Our team includes over 30 PhDs and four medical doctors who bring deep expertise across clinical, academic, and technology domains. In addition to internal expertise and ongoing investment in science, Oura is proud to partner with leading research institutions around the world to validate our measurement accuracy and expand our knowledge of how Oura can support real-world care, including University of California, San Diego, University of California, Berkeley, University of Tokyo, Oulu University Hospital - Research Group of Anesthesiology, and the National University of Singapore. Our commitment to building a scientifically validated device has led to Oura becoming the passive biometric wearable of choice for many researchers and has been utilized in over 170 published, peer-reviewed research studies as of May 2025.

Our Medical Advisory Board

Dr. Michael Chee | SLEEP

Professor and Director, Centre for Sleep and Cognition, Yong Loo Lin School of Medicine, National University of Singapore

Dr. Jake Deutsch | PREVENTATIVE MEDICINE

Board-certified emergency medicine physician

Dr. Elissa Epel | STRESS

Professor and Vice Chair in the Department of Psychiatry, at the University of California, San Francisco

Dr. Eleni Jaswa | REPRODUCTIVE HEALTH/FERTILITY

Board-certified ObGyn Reproductive Endocrinologist and Fertility Specialist at the University of California, San Francisco

Dr. Rebecca Robbins | SLEEP

Instructor of Medicine, Harvard Medical School, Associate Scientist, Brigham and Women's Hospital

Dr. Jag Singh | HEART HEALTH

Professor of Medicine at Harvard Medical School, former Clinical Director of the Cardiology Division and the Founding Director of the Resynchronization and Advanced Cardiac Therapeutics Program at the Massachusetts General Hospital

Featured Partners, Providers, and Customers

We firmly believe that to go far, we need to go together. Oura has cultivated a robust partner ecosystem across research, industry, and healthcare delivery. We are continuing to explore, build, and grow with partners to build an evidence-based, outcomes-driven product. We are proud to have worked with:

Research

DUKE BIG IDEAS LAB
MAYO CLINIC
MEDICAL UNIVERSITY OF SOUTH CAROLINA
NATIONAL UNIVERSITY OF SINGAPORE
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
UNIVERSITY OF CALIFORNIA, BERKELEY
UNIVERSITY OF CALIFORNIA, SAN DIEGO
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
SCRIPPS RESEARCH
STANFORD UNIVERSITY

Healthcare Delivery

DEXCOM
EVERNOW
ESSENCE HEALTHCARE
MAVEN CLINIC
MIDI HEALTH
PROGYNY
QUEST DIAGNOSTICS
TALKSPACE

Non-Profit Organizations

DIGITAL MEDICINE SOCIETY

Military and Government

SELECT U.S. DEFENSE AND SPACE AGENCIES
UNITED STATES AIR FORCE
UNITED STATES ARMY

App Integrations

CLUE
CORE POWER YOGA
CRONOMETER
HEADSPACE
NATURAL CYCLES
THE SCULPT SOCIETY
STRAVA
TECHNOGYM
ZERO

Partners and Customer Spotlights

Maven Clinic, one of Oura's connected care partners, is enabling users to integrate Oura data into Maven's virtual clinical care platform, providing data-driven care planning for women and families across all life stages, including fertility care, maternity, and menopause. This partnership unlocks personalized insights for Maven members, turning passive tracking into proactive care for thousands of patients.

MAVEN

The TemPredict Study was designed to test whether physiological data collected by Oura Ring can predict illness symptoms. The study aimed to build an algorithm to identify patterns of, onset of, progression of, and recovery from, COVID-19. Data collected from the study has led to a variety of findings published in peer reviewed journals on the possibility of using Oura Ring for detection of Covid-19, body temperature association with depression, population level fever detection, and understanding sleep phenotypes and chronic conditions.

Increasing Access to Oura Ring

Oura Ring is covered and reimbursable via Flexible Spending Accounts (FSA) and Health Savings Accounts (HSA), allowing US-based members to take advantage of pre-tax dollars to invest in Oura Ring and Oura Membership. This benefit can be utilized on ouraring.com, select retailers, and via purchase on Optum Now, the FSA Store and HSA Store.

HSA/FSA Eligible | Optum

Dedication to Data Privacy and Security

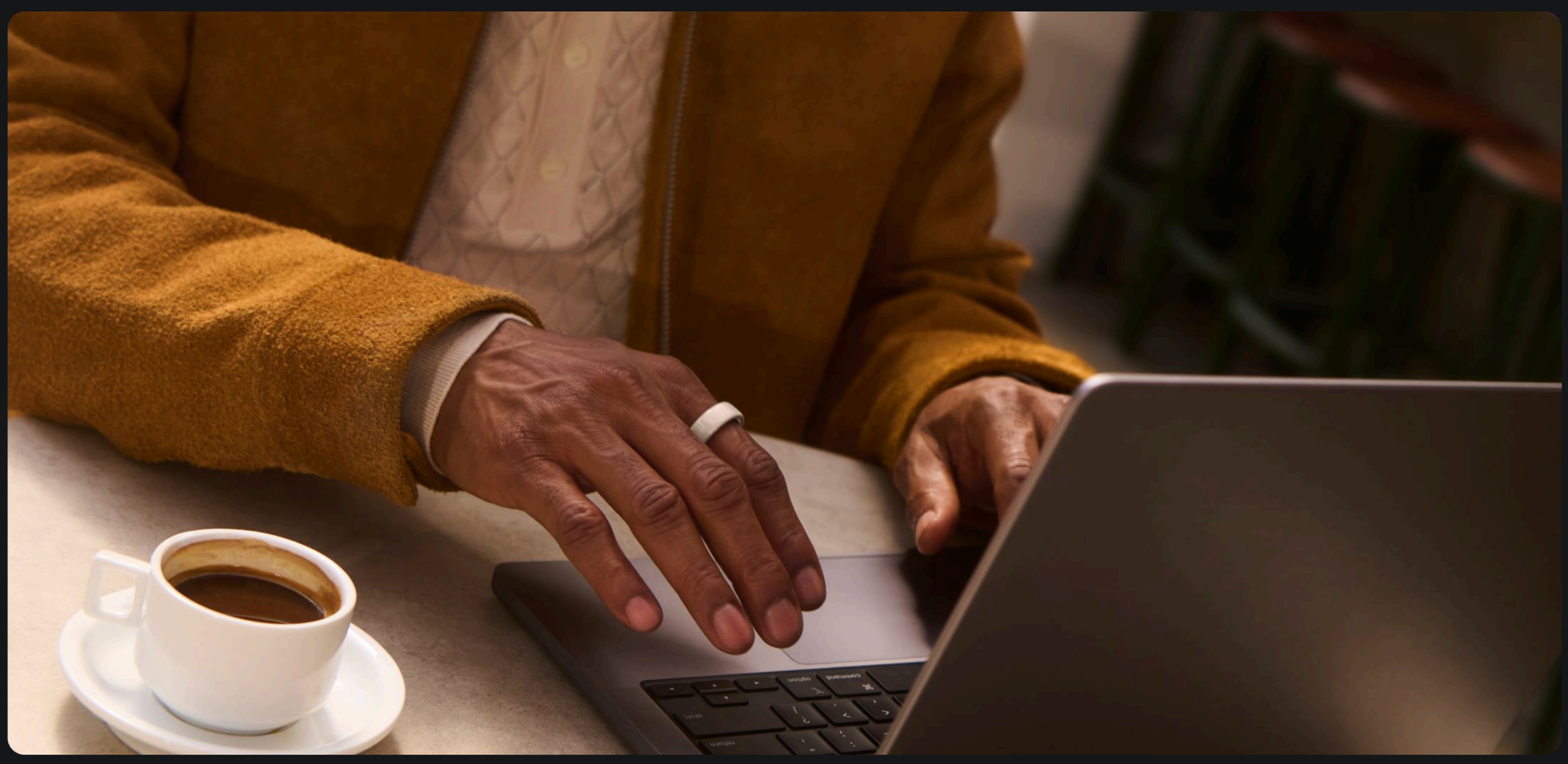
At Oura, we know that your health data are deeply personal. Our commitment to protecting your privacy and data security is fundamental to our company and built into our privacy-first business model.

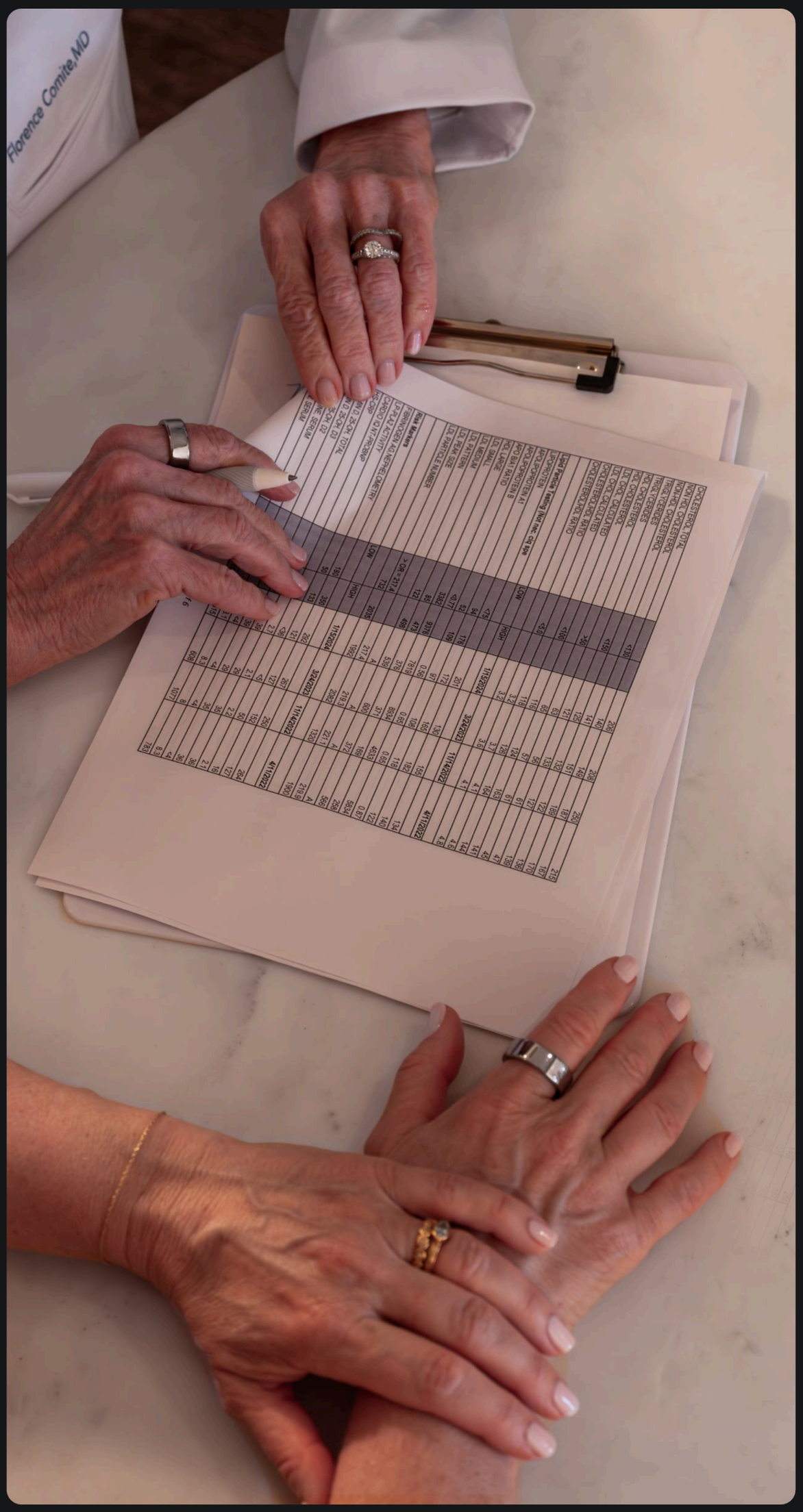
Oura uses advanced technology and organizational safeguards to keep your data safe and secure. Where appropriate, these safeguards include measures such as anonymization or pseudonymization of personal data, strict access control, and the use of encryption to protect the data we process.

Oura adheres to some of the most stringent global privacy standards. For us, protecting our customers' personal data is non-negotiable. Oura stands firmly against unauthorized data sharing. We will never sell your personal data or share your personal data to third parties without your consent or authorization.

Protected Health Information (PHI) maintained by Oura is processed in accordance with HIPAA privacy and security standards. In addition, Oura complies with General Data Protection Regulation (GDPR), one of the world's most comprehensive data protection laws.

The full Oura Health Privacy Policy can be found on our website and you can learn more about Oura's commitment to privacy and security on our blog.





Healthcare Delivery

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Healthcare Delivery

Payer Spotlight

There is a tremendous opportunity to bridge the gap between everyday life and clinical care by equipping both individuals and healthcare providers with continuous, personalized health data. Oura enables care teams to monitor how patients are doing between visits, offering early indicators when key metrics shift from individual baselines. These insights can help flag potential issues before they escalate, supporting timely, proactive intervention. Providing clinicians and members a shared view of Oura data over time can bring more precision to traditional healthcare settings, enabling patients and clinicians to make informed decisions together.

As healthcare moves toward more preventive, value-based models, Oura is partnering with insurance providers to make health insights more accessible at both the individual and population levels. In an early collaboration with Essence Healthcare, Essence members showed higher levels of engagement in managing their health compared to a matched cohort, underscoring the power of payer sponsorship to increase Oura Ring access. In the near future, our payer partners will be able to aggregate anonymized trends across member populations. We are excited to continue expanding access to Oura Ring through our growing network of payer partners. In addition, Oura Ring is eligible for purchase with FSA and HSA funds, providing individuals with another path to reduce out-of-pocket costs to access and invest in their long-term health and wellness.

> “
> Our vision to create a healthier future for every individual and community we serve compels us to relentlessly strive for the health and vitality of every member. Oura ignites our ability to innovate through wearable technology, empowers members to drive their own path to better living, and connects their primary care providers to their personalized Oura story for optimal outcomes.
>
> — **Saria Saccocio, MD**
> Chief Medical Officer, Essence Healthcare

Our commitment to healthcare extends beyond patients. We're also supporting care delivery professionals by helping them monitor their own energy levels, recovery, and resilience — offering the same data-driven support to reduce burnout and sustain wellbeing on the front lines of care.

11%

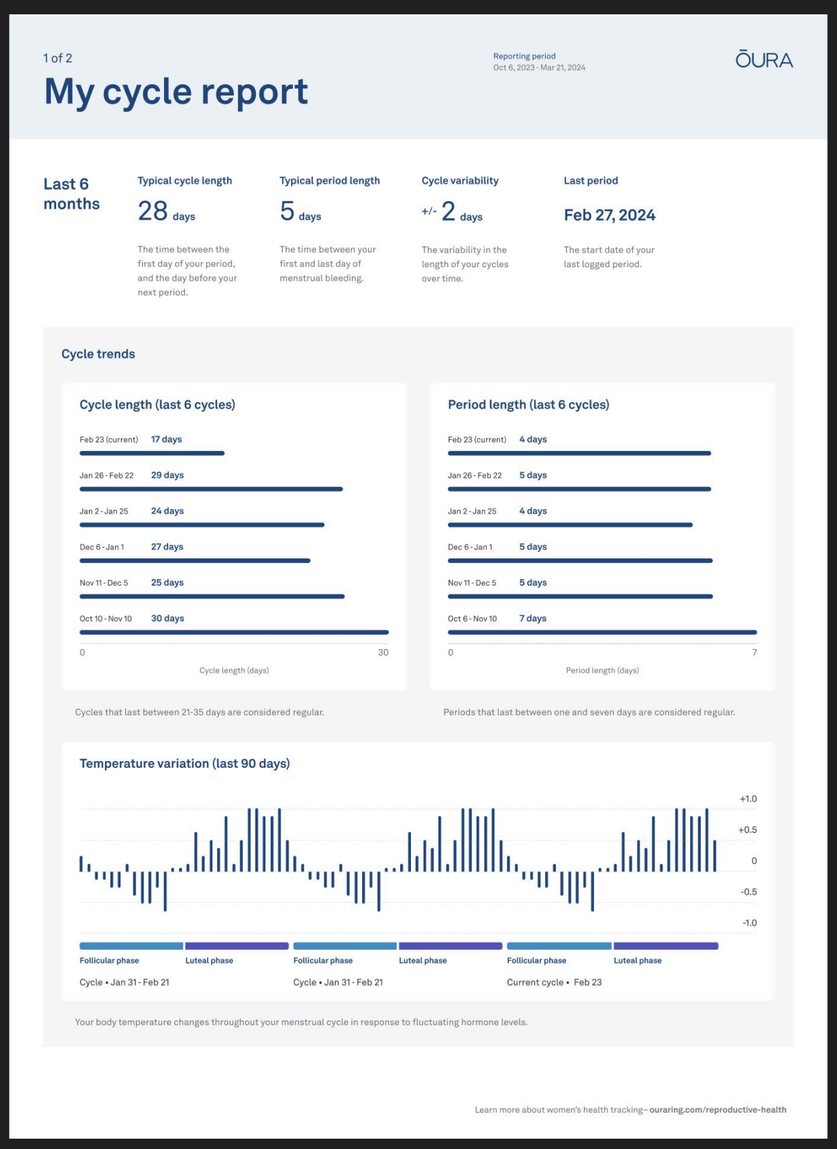
of Oura Members are healthcare providers

Helping Care Teams Understand Patients

Michael Kurisu, DO, a family medicine doctor with over twenty years of experience, began incorporating wearable data at UC San Diego Health Center for Integrated Medicine. In 2021, he founded Measured Wellness to combine medicine and data science to leverage daily wearable health data in clinical practice. Dr. Kurisu shared, “Historical data is more important than what I can get in my office. If you are a healthy person, you probably see your clinician for an hour per year. But there are 8,000 other hours in the year. As a physician I typically have no idea what is happening to my patient during those other hours. With Oura data I can understand a patient’s baseline data and understand changes — both positive and negative — over time and intervene. Wearable data has opened my perspective around what is clinically relevant.”

SHAREABLE REPORT

Our Shareable Report feature enables members to manage their health data and share it securely and safely with others, such as trusted healthcare professionals. With this feature, Oura Members download and share their personal data about their sleep or menstrual cycle with trusted health partners and providers — such as a primary care physician, OB-GYN, psychiatrist, therapist, or nutritionist — in an easy-to-digest format created with providers in mind.



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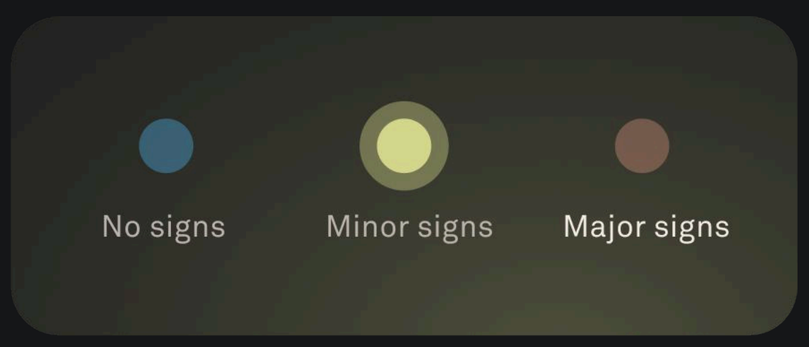
Symptom Radar: Flagging Early Warning Signs

With Symptom Radar, Oura monitors key physiological signals including resting heart rate, heart rate variability (HRV), and temperature trends that often shift before noticeable symptoms of illness appear. During the COVID-19 pandemic, the TemPredict study showed that Oura Ring could identify signs of COVID-19 an average of 2.75 days before individuals pursued diagnostic testing. Drawing upon these insights, Oura developed Symptom Radar, which translates these subtle physiological changes into a clear, customizable alert to help people stay ahead of potential illness.

Symptom Radar displays signs of strain in a three-level estimate:

NO SIGNS

No obvious signs in biometrics of something straining the body



MINOR SIGNS

There are small signs in biometrics of something straining the body

MAJOR SIGNS

There are stronger signs in biometrics of something straining the body

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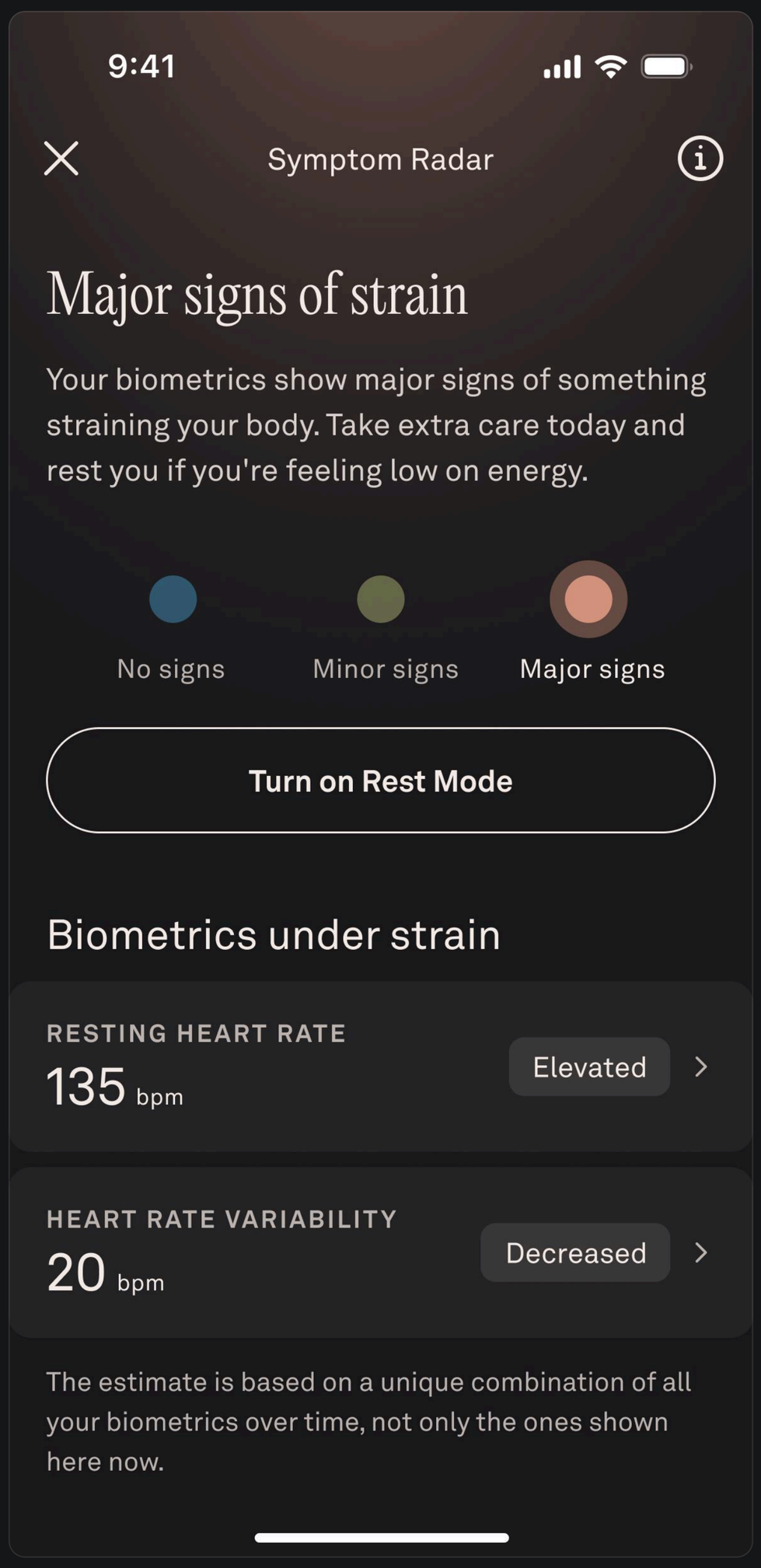
Symptom Radar Spotlight

While Oura Ring is currently a wellness device, there have been numerous reports of Symptom Radar shining a light on something that resulted in better care, faster. For example:

Marcia E., who has lived with lupus for more than 30 years, saw repeated Symptom Radar alerts showing her body wasn't recovering as usual. She visited her doctor and was referred to an endocrinologist, who discovered her thyroid levels were dangerously out of range. Catching the issue early helped prevent serious complications, and Marcia now uses Oura metrics to guide how she approaches each day.

Bria M., a dance coach, began experiencing fatigue, reflux, and weight loss, but initially thought it was tied to lifestyle changes. While on her honeymoon, Symptom Radar flagged unusual strain, which led her to push for further testing after returning home. Doctors discovered a large lung mass and diagnosed her with lymphoma; Bria credits her persistence and Oura's signals for prompting timely care.



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Patient Support

Jennifer G., was diagnosed with colon cancer in January of 2025. After an initial stay in the hospital, Jen started using Oura Ring at the recommendation of a cancer care navigator. In a conversation with Oura, Jen shared how she uses Oura Ring throughout cancer treatment:

> “
>
> After my cancer diagnosis, I was in the hospital for a month and went through multiple surgeries. Shortly after I was discharged I started using Oura Ring and have been a member for 7 months. It's been a game changer in terms of me having the information I've needed for good personal management and having an additional signal for when I should be escalating something to my care team.
>
> **— Jennifer G.**

Oura Advisor

Powered by advanced artificial intelligence, Oura Advisor, our in-app conversational support tool, transforms each member's Oura data into personalized, actionable guidance. With Advisor, members can chat and explore long-term health patterns, view detailed visualizations of Sleep, Activity, Readiness, and Resilience metrics, and develop tailored plans to support their individual wellness goals. With its Memories feature, Oura Advisor can retain and reference context from past conversations and make long-term connections about member behaviors and patterns. Members can also customize Advisor's tone, choosing between "conversational" (a supportive, encouraging voice) or "direct" (a more goal-oriented, accountability-driven approach), as well as the frequency of check-ins.

Since Advisor launched, more than 4,000,000 messages have been sent. Members have discussed:

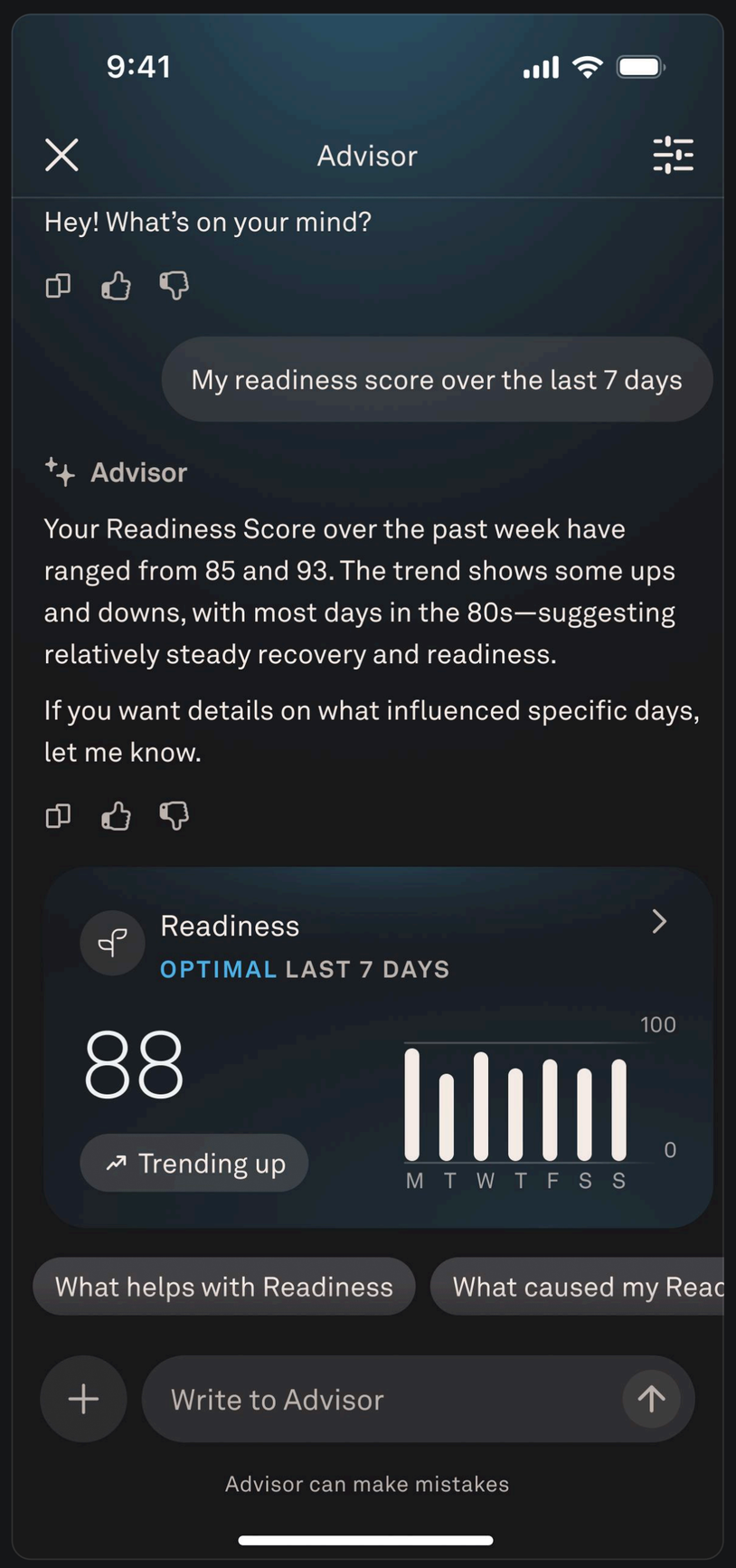
STRESS MANAGEMENT
31%

ACTIVITY & MOVEMENT
23%

SLEEP
20%

HEART HEALTH
8%

METABOLIC HEALTH
7%

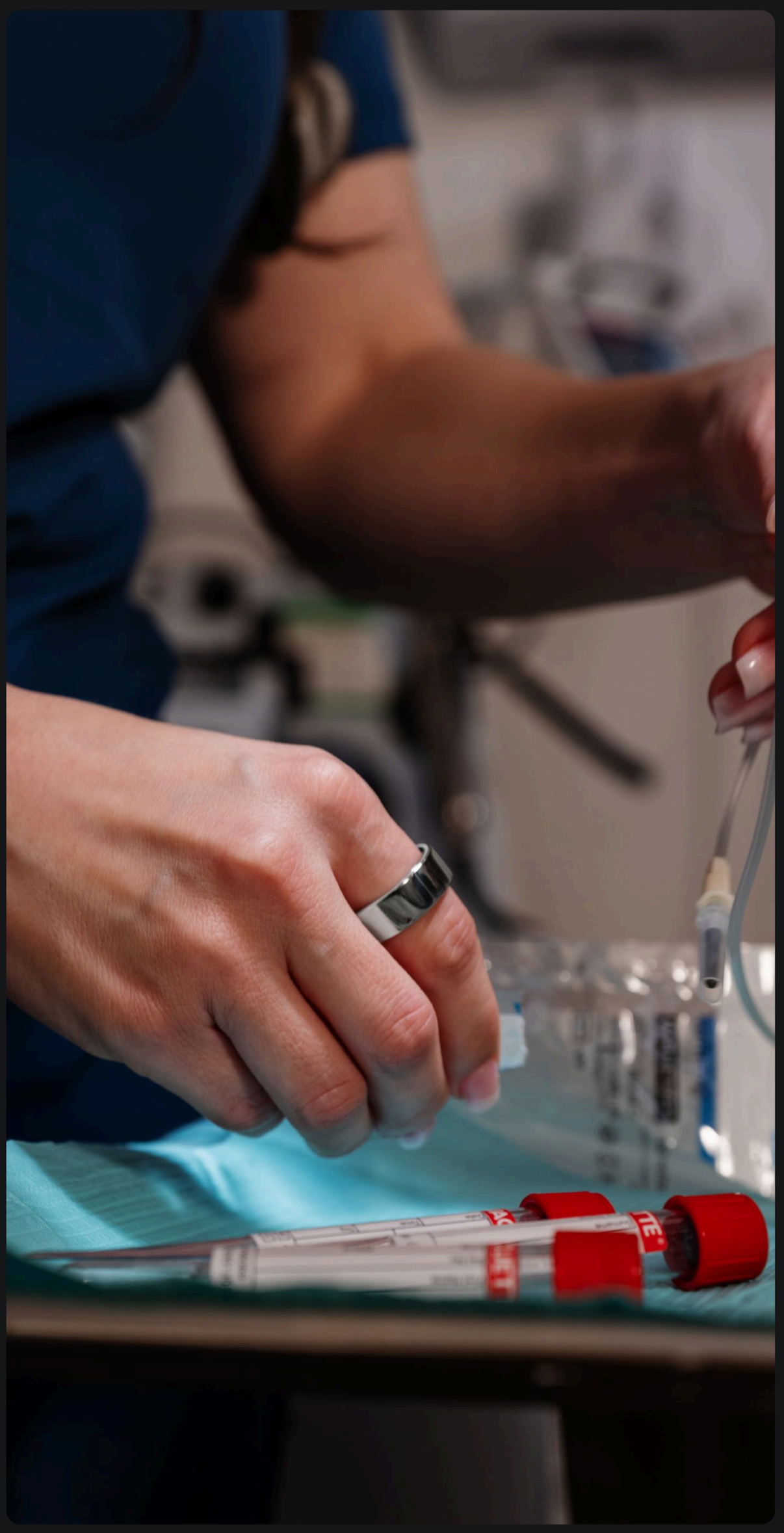


> "Sometimes, I feel overwhelmed by anxiety, and Oura Advisor helps me rewire my thoughts, apply meditative techniques, and just feel seen, heard, and validated in my experience. It really helps me stay grounded in my mental and physical health.
>
> — **Liana J.**

Featured Healthcare Partnership

Oura is part of a groundbreaking initiative led by the Digital Medicine Society (DiMe) and supported by major partners, including Duke University's BIG IDEAs Lab, UNC–Chapel Hill, other wearable companies, and additional research and care institutions, to pilot a wearable-based, AI-powered early warning system for opioid relapse. More than 5 million people live with opioid use disorder (OUD) in the U.S., and approximately 81,000 people die each year due to opioid overdose. Over five months, study participants in recovery will continuously wear Oura Ring and other wearables, allowing researchers to combine biometric data (like heart rate, sleep patterns, and activity) with behavioral inputs. The goal is to develop predictive models that alert both individuals and care teams to potential relapse risk, offering a proactive tool to reduce overdose deaths and transform opioid use disorder care.

DiMe



Population Health Monitoring

Commercial and clinical partners can monitor and improve population health and performance with Oura Enterprise Platform, a modern data solution that allows administrators to integrate, analyze, view, and access health data to drive informed decisions.

Oura Enterprise Platform includes:

DATA PROTECTION AND SECURITY

Oura complies with stringent data protection laws like GDPR and processes PHI in accordance with HIPAA. We protect personal data with industry-standard encryption, secure AWS EU hosting, strict access controls, network protections, robust development practices, and ongoing vulnerability testing.

EXPLICIT CONSENT TO SHARE

Members stay in control of their personal data through explicit consent and the ability to revoke access at any time.

ROLE-BASED ACCESS CONTROL

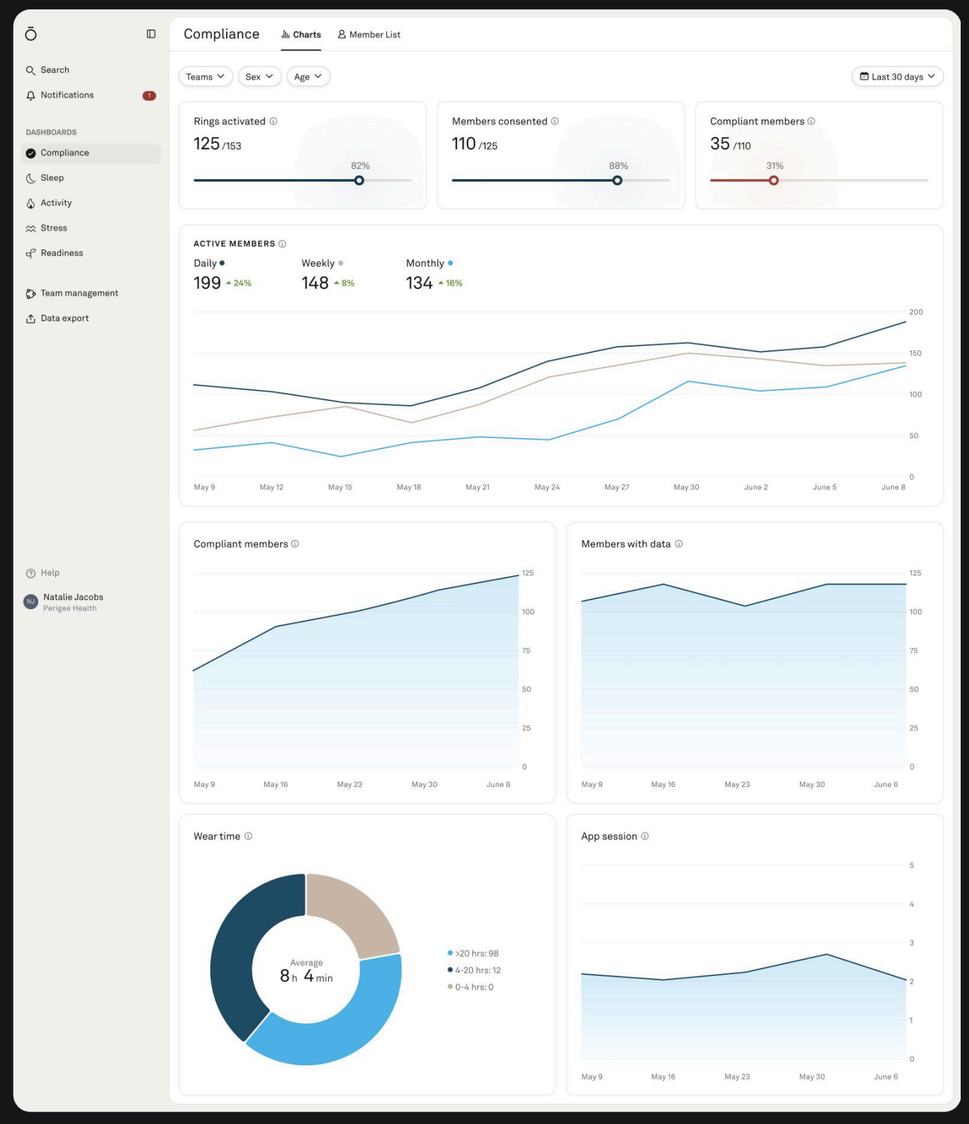
Data access is limited by role, ensuring the minimum necessary permissions and supporting the protection of sensitive information.

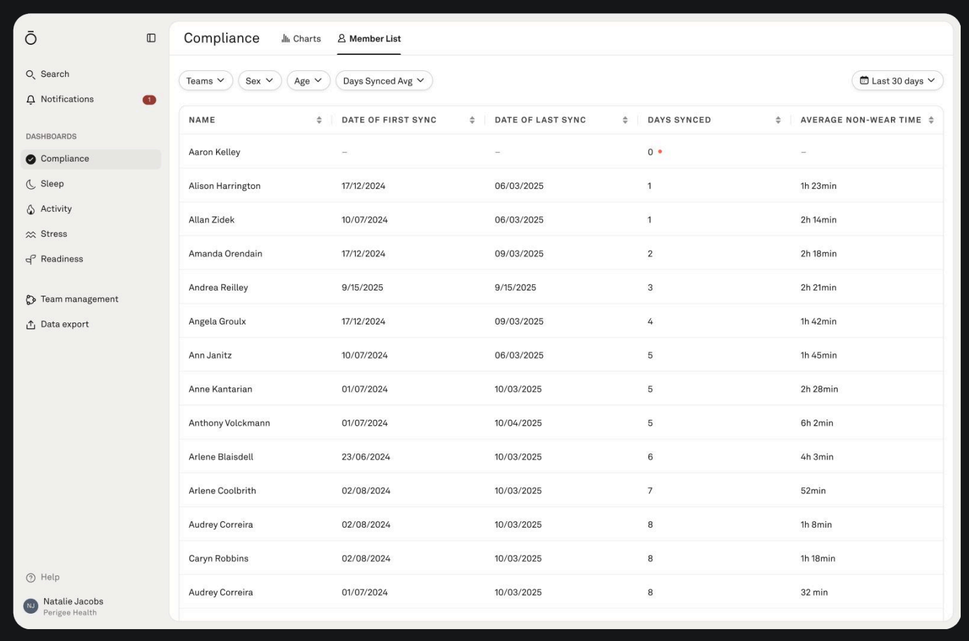
DATA ACCESS AND MANAGEMENT

Includes tools to collect and manage member data, enabling insights that reflect organizational context.

VISUALIZATION AND REPORTING

Flexible data visualization and system management tools that support customized views, clarity, and informed decision-making.





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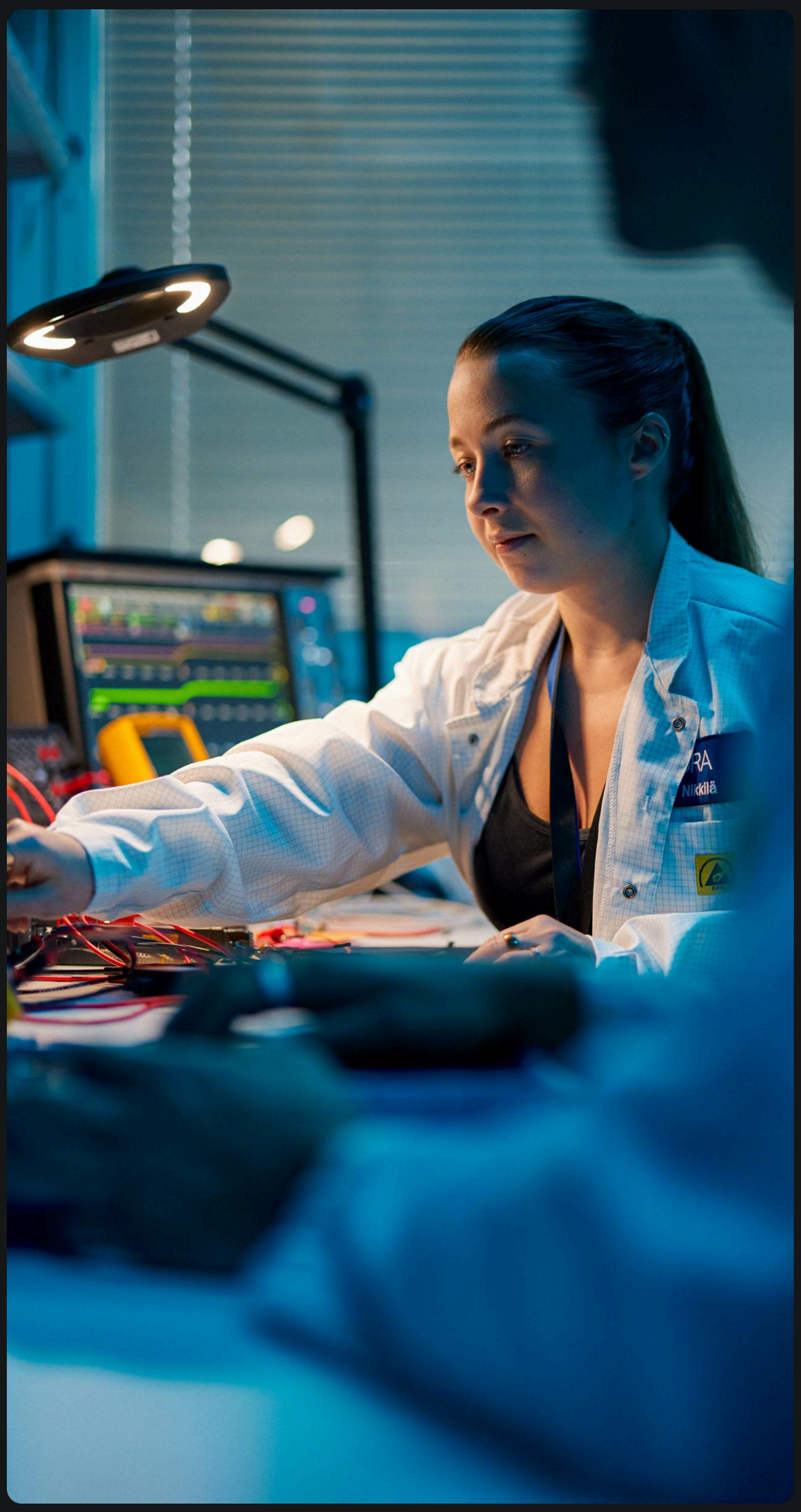

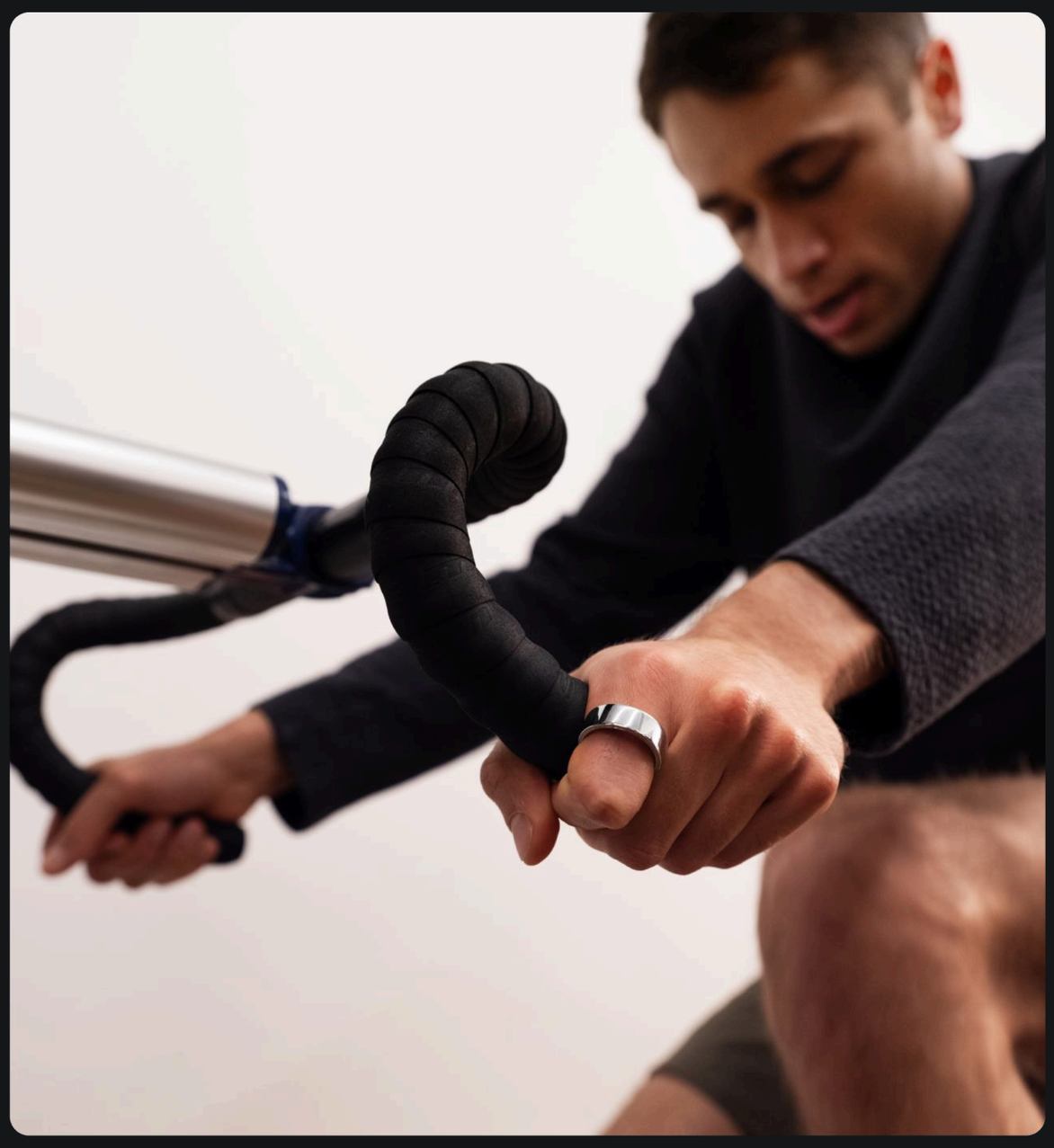

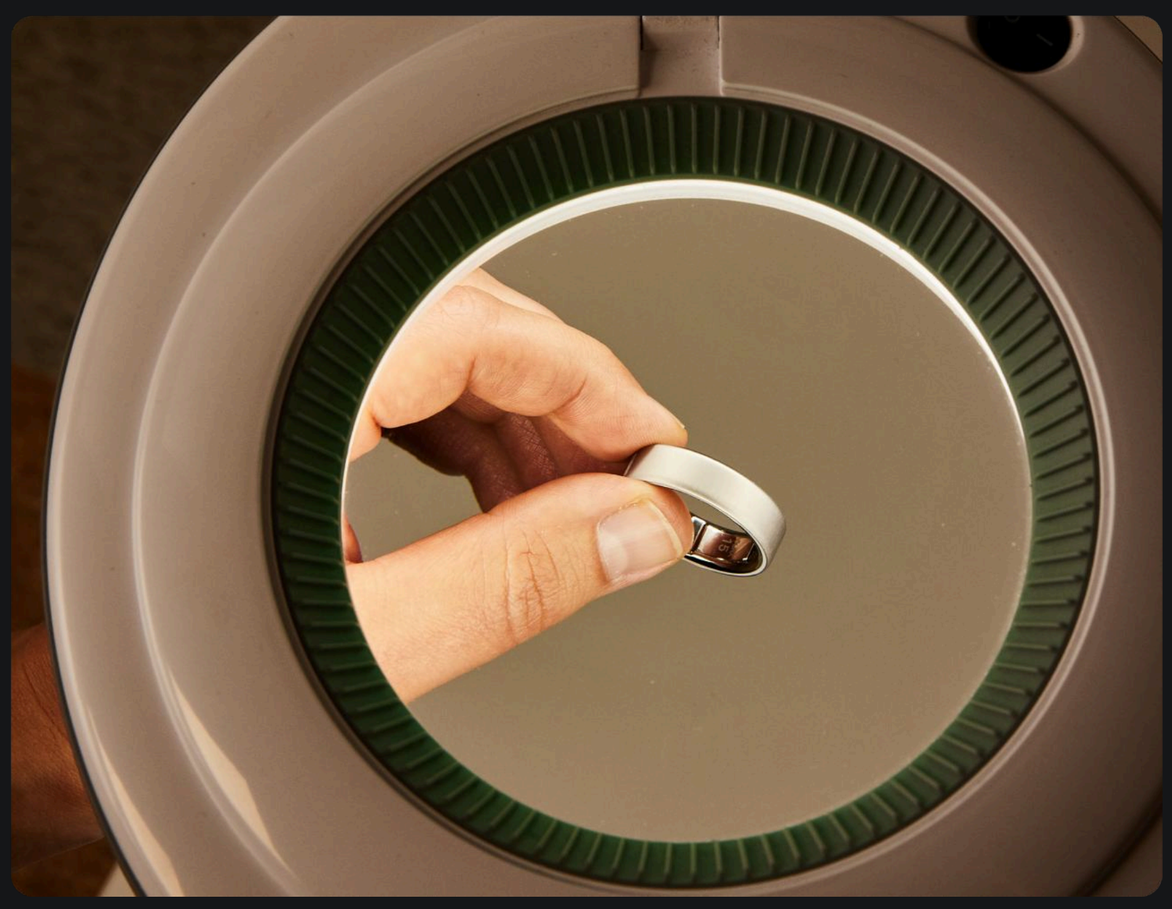

Research

Research

At Oura, our research program supports our mission of making health a daily practice by advancing both the science and technology behind continuous health monitoring. We develop and validate sensing algorithms that meet the highest clinical and scientific standards, while also collaborating on original research that expands our understanding of human physiology and wellbeing.

This commitment has made Oura Ring a trusted tool for researchers around the world. Since 2020, it has been featured in over 170 peer-reviewed publications, with new studies launching nearly every month. Researchers choose Oura not only for its data quality, but for our shared dedication to scientific rigor and collaboration.

We believe that building a meaningful product means building a vibrant scientific ecosystem — one that invites curiosity, supports exploration, and accelerates discovery. This spirit has led to a robust portfolio of work with academic research centers, clinical organizations, and healthcare innovators around the globe.

Research Highlights

Oura Ring has been used in studies across sleep, women's health, mental health, infectious disease, heart health, physical activity, and postoperative management. Researchers are continuing to explore new ways that Oura data can be used to understand human health.

Exploring the Potential of a Smart Ring to Predict Postoperative Pain Outcomes in Orthopedic Surgery Patients | Sensors, 2024

This study investigated whether data from Oura Ring could be used to predict poor pain relief in patients recovering from orthopedic surgery. Researchers provided 37 inpatients with Oura Ring during their postoperative hospital stays, continuously gathering physiological data such as heart rate (HR), heart rate variability (HRV), sleep, activity, and temperature trends. They trained machine-learning models on the collected metrics to forecast which patients were likely to experience inadequate pain control. The models achieved 70% accuracy, with performance comparable to existing methods that rely on pre-surgery risk factors. **The results suggest that passive, continuous monitoring with Oura Ring provides objective insights into patient wellbeing, enabling care teams to identify patients at risk of poor pain outcomes and intervene earlier to improve postoperative recovery.**

Menstrual Cycle Variations in Wearable-Detected Finger Temperature and Heart Rate, But Not in Sleep Metrics, in Young and Midlife Individuals | Journal of Biological Rhythms, 2024

This study used Oura Ring and daily tracking to examine how the menstrual cycle affects health in both young and midlife women. Researchers found that body temperature and heart rate changed predictably across the cycle, with heart rate lowest during menstruation. Mood improved around ovulation, and physical symptoms were most common during menstruation. Surprisingly, sleep stayed consistent throughout the cycle in both age groups. **These findings suggest that while the menstrual cycle affects the body and mood, sleep may be protected from these changes.**

Rest assured: High sleep efficiency reduces postoperative complications and opioid prescriptions in patients undergoing surgeries with gynecologic oncologists | Gynecologic Oncology, 2025

A study including 90 participants who wore Oura Ring for sleep measurement found that higher preoperative sleep efficiency was independently associated with fewer 30-day postoperative complications. According to the authors, **"On multivariable analysis, each 1% increase in sleep efficiency was associated with 6% lower adjusted odds of complications and significantly lower total morphine milligram equivalents (MMEs) prescribed at discharge."**

Oura has been used as the **primary measurement device** in over 60 peer-reviewed studies as of May 2025.

How Oura Powers Research

Oura collaborates with and supports researchers at universities, hospitals, research institutions, and commercial organizations around the world to help advance scientific understanding of health and promote the development of solutions that address unmet needs.

Our engagement with researchers falls into two complementary categories:

RESEARCH CUSTOMERS

These partners purchase Oura Ring, as well as access to the Oura research platform and research services, to pursue their study objectives. Oura supports research customers with tailored services and tools, including non-binding letters of support, cost estimates, sample language for IRB submissions, and guidance to incorporate metrics into analysis plans.

RESEARCH COLLABORATORS

Oura enters into a deep scientific collaboration with a select group of research partners on projects aligned with our research and product priorities. In these joint efforts, Oura scientists and operational staff work alongside academic and industry partners to co-design, execute, and publish studies. Oura contributes expertise on protocol development, Oura Ring logistics, data pipelines, and data interpretation, ensuring scientific rigor from start to finish.

All partners use Oura Enterprise Platform, our participant management system that enables enrollment, adherence tracking, and data export with a scalable, well-documented API designed for seamless partner integration.

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> Our commitment to science drives everything we build. It’s how we ensure that the algorithms that we build, as well as insights and guidance we deliver, are rigorously validated, grounded in evidence, and meaningful for both individuals as well as the scientific and clinical communities.
>
> **— Shyamal Patel, PhD**
> Senior Vice President, Science at Oura

RESEARCH PLANNING

Non-binding Letters of Support for Grant Applications, Cost Estimates, IRB consultation, Discussion related to key metrics of interest and how they are related to hypotheses

RESEARCH FUNDED

Bulk ordering of discounted Oura Ring devices through B2B purchasing, Onboarding Education for how to use Oura Platform

RESEARCH EXECUTION

Oura Ring sizing and distribution, Communication support to optimize Oura Ring wear adherence for data collection

RESEARCH CONCLUDED/DATA ANALYSIS

Data access from APIs, Collaboration on publication for selected studies

30+ PhDs

working at Oura on the research team

Oura Research Scientists Spotlight

RAPHAEL VALLAT, PHD

A Staff Machine-Learning Data Scientist at Oura, where he leverages his deep expertise in algorithm development and physiological data analysis to pioneer new health-tracking technologies. A neuroscientist by training, Dr. Vallat's research has led to numerous publications in top-tier scientific journals, contributing significant advancements to the field of sleep neuroscience and wearable technology.

EMMI ANTIKAINEN, PHD

A Senior Data Scientist at Oura developing new algorithms for wellbeing. Her expertise is in signal processing and machine learning in the health domain. Throughout her career, her work has focused on health-related quality of life and solutions for preventative care.

MASSIMILIANO DE ZAMBOTTI, PHD

The Head of Health Science at Oura. He is a leading expert in wearable sleep technology with over a decade of experience across academia and industry. Dr. de Zambotti has authored more than 140 peer-reviewed publications and has contributed to advancing device validation standards and best practices for applying wearable technology in research and clinical settings.

HELI KOSKIMÄKI, PHD

Works as Senior Director, Future Physiology at Oura. Since joining the Oura Science Team in 2016, she has contributed to several core feature development projects, from nocturnal heart rate (HR) and heart rate variability (HRV) studies to sleep staging, chronotype detection, and period prediction. Currently, she is responsible for Oura's long-term roadmap planning from a physiological features perspective.

MARI KARSIKAS, PHD

The Senior Director of Product Science at Oura. She has more than 20 years of experience in research and product development based on patient and health data of hospitals and health technology companies. Dr. Karsikas has a Doctor of Technology degree focused on intelligent systems and biosignal processing.

Presenting Around the World

Our team are active members of the scientific community and have presented research at top conferences around the world, including:

AMERICAN COLLEGE OF OBSTETRICS AND GYNECOLOGY ANNUAL MEETING

AMERICAN HEART ASSOCIATION SCIENTIFIC SESSIONS

HEALTHNEXT AI

HIMSS

HLTH

SLEEP

SLEEP EUROPE CONGRESS

SPACEFLIGHT AND HUMAN OPTIMIZATION PERFORMANCE SUMMIT

WOMEN OF WEARABLES VIRTUAL MENOPAUSE SUMMIT

WORLD SLEEP CONGRESS

Women’s Health

Women’s Health

We are committed to creating meaningful experiences for women by providing personalized insights and guidance tailored to their unique health needs. We recognize that a woman's health is dynamic — shaped by hormonal changes from adolescence through menopause, influenced by personal, family, and societal demands, and impacted by chronic conditions that disproportionately affect women. Throughout every stage, Oura serves as a reliable companion, supporting women with tools and knowledge to navigate their evolving health journey with confidence.

Menstrual cycles can inform many aspects of women's health. For example, irregular cycles are linked to other health conditions, such as polycystic ovarian syndrome, thyroid disorders, and uncontrolled diabetes. For people who menstruate, the Cycle Insights feature provides detailed data and insights, including cycle phases, cycle stats, fertility signals, educational resources, and more, helping to deepen body literacy and gain clarity into each individual’s reproductive health.

Oura has built an incredible and diverse ecosystem of women’s health partners that enhance our women’s health offerings — from Natural Cycles, our FDA-cleared digital birth control companion, to our connected care partners, including Progyny, Maven Clinic, Midi Health, and Evernow.

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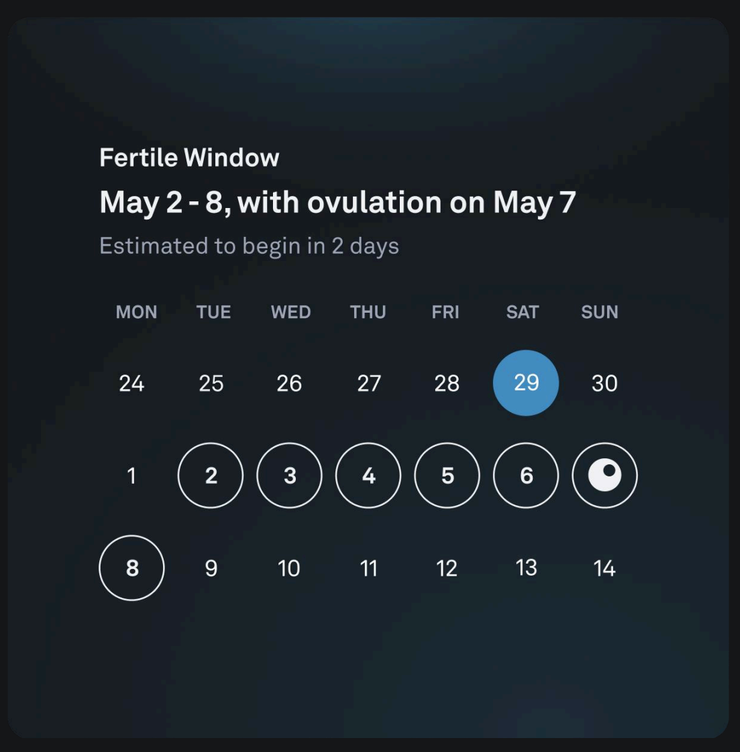
> By integrating Oura health insights into Maven’s clinical care platform, we are bridging the gap between everyday physiology and medical decision-making. In fertility and maternity care especially, data on sleep, cycle changes, and recovery offer patients greater agency while equipping clinicians with insight to personalize care and improve outcomes.
>
> **— Neel Shah**
> Chief Medical Officer, Maven Clinic

Clinical Spotlight

Grounded in science, Oura's women's health solutions support both at-home care and integration with traditional healthcare settings.

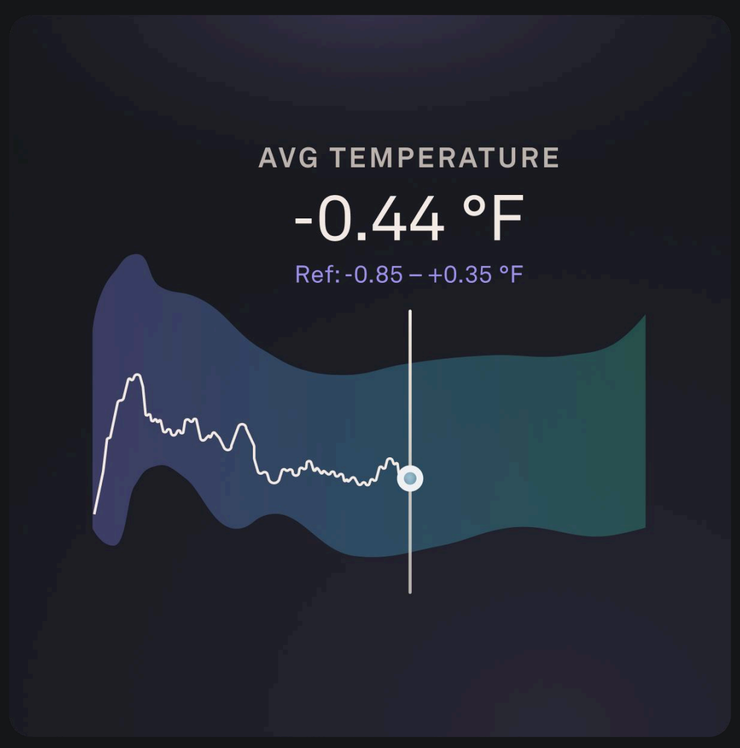
ACCURATE MENSTRUAL CYCLE TRACKING

Cycle Insights uses physiological data influenced by hormonal fluctuations, such as heart rate, heart rate variability, temperature trends, and respiratory rate, to help members visualize past and current cycles and identify their follicular and luteal phases. It also predicts period start date within a five-day window. Members who opt in can also access the Fertile Window feature, which identifies the most likely fertile days based on past cycles.



OVULATION PREDICTION AND CONCEPTION SUPPORT

The initial results from our ovulation detection validation study, published in The Journal of Medical Research, showed that Oura Ring had a 96.4% accuracy for estimating ovulation compared to the calendar method. Oura Ring demonstrated strong accuracy for irregular cycles (>7 days variation in cycle length), reducing ovulation detection errors from 6.63 days to 1.48 days. Eighty-two percent of ovulation estimates were within two days of the reference date (based on ultrasound and LH testing), compared to 32.5% using the calendar method. This can provide personalized support to women trying to conceive.



PREGNANCY DETECTION AND EDUCATION

In a research collaboration with the University of California, San Diego, continuous temperature trends data from Oura Ring allowed researchers to identify pregnancies an average of 5.5 days after self-reported conceptive sex and an average of nine days before a positive at-home pregnancy test. These initial results show that continuous temperature trends may be a viable tool for passive, early pregnancy detection.

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LABOR PREDICTION

A study published in Nature Partner Journals Digital Medicine found a pattern between physiological data points and the forecasted length of pregnancy in relation to their due date. With Oura Ring metrics, specifically skin temperature, metabolic activity, physical activity levels, and sleep patterns, the machine learning model had a moderately good ability to predict if labor would occur before or after the estimated due date (40 weeks gestational age) (AUC 0.071).

PERIMENOPAUSE CHECK-IN

Perimenopause Check-In is the first solution of its kind to integrate ongoing symptom tracking, menstrual cycle data, and biometric signals to provide a holistic view of the perimenopause journey, and then directly offer a connection to specialty clinical care, all in one platform. After completing our perimenopause check-in, Oura provides a summary PDF that can be used by the member to summarize their symptoms, and is designed to to be easily shared with healthcare providers. Members also gain access to a curated educational content hub that illuminates perimenopause symptoms, shares science-backed guidance, and features stories from real women navigating this life stage.

The Oura Perimenopause Report revealed that women can lose up to two hours of sleep weekly during perimenopause and that heart rate variability, a key indicator of nervous system and cardiovascular health, shows a 20-30% decline in early and late perimenopausal women.

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> Most women have no idea they’re in perimenopause. They just know they can’t sleep, they’re moody, they’re starting to have hot flashes — and no one’s connecting the dots. Oura changes that by helping women see the pattern in their symptoms, and now that insight leads directly to expert care at Midi Health.
>
> **— Joanna Strober**
> Chief Executive Officer, Midi Health

A woman’s companion across her life stages

CYCLE INSIGHTS

Understand the menstrual cycle and align with physical and mental needs during the different phases. Get a predicted Fertile Window and period estimate to feel more in control of your cycle and your health goals.

BIRTH CONTROL

Oura powers Natural Cycles, the first FDA-cleared birth control app

FAMILY PLANNING

Women and their partners can assess their wellness as they prepare to begin their pregnancy journey

FERTILITY

Fertile Window helps women estimate and mark their ovulation to maximize their chances of conception.

PREGNANCY

Oura's pregnancy feature shows gestational age and weekly insights about what is changing in a woman's body

POSTPARTUM

Oura's sleep data support parents, as disrupted sleep is one the largest challenges of parenthood

PERI/MENOPAUSE

Tracking biometrics and symptoms together, Oura can help peri & menopausal women track changes and understand trends

26

peer-reviewed studies have used the Oura Ring in relation to reproductive and women’s health.

Featured Research

Our core capabilities in women's health are built on strong collaborations with leading research institutions, ensuring scientific rigor and real-world relevance in the development and validation of its features.

Oura has collaborated with leading institutions, including:

The University of California, San Diego, to deepen the understanding of pregnancy via analysis of Oura biobehavioral data through pregnancy.

The Oregon Health and Science University, to understand whether a health wearable like Oura Ring could help predict labor onset and support healthier pregnancy and postpartum journeys.

Clue and researchers at University of California, Berkeley, to study the impact of perimenopause on Women's Health.

Oura is currently working with the Scripps Research Digital Trials Center to conduct a large-scale, retrospective study analyzing biometric and behavioral changes during pregnancy among 10,000 enrolled Oura Members. By integrating wearable data with optional electronic health records, the study aims to identify early indicators of complications such as miscarriage, preterm labor, and postpartum depression. Oura Ring will also be used to help better understand the physiology of the menstrual cycles of underrepresented groups in the STIGMA study led by Stanford University School of Medicine.

Scripps Research
Digital Trials Center

We're committed to advancing the science of women's health through research, partnerships, and real-world impact. Our team is exploring differences in cardiovascular health, as well as how different ages and stages affect cardiovascular risk. And we're going further, enabling members to opt-in to research studies directly in the Oura App, helping us to expand our understanding of women's health for both patients and providers.

Member Spotlights

How Trisha Uses Oura to Manage Stress, Recover from Illness, and Understand Her Reproductive Health

Trisha P., a 29-year-old, uses Oura Ring to manage stress, recover from illness, and better understand her reproductive health. After transitioning off hormonal birth control, she began pairing Oura (covered by her FSA) with the Natural Cycles app to track her cycle and increase her body literacy while she prepared for a future pregnancy.

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> At Oura, we understand that every woman's health experience is truly unique. We are dedicated to helping women decode their body’s signals throughout the lifespan with accurate and high quality data. Whether a woman is working towards improving wellness with daily actions or navigating bigger journeys like pregnancy or menopause, Oura is there for them. We are committed to transforming moments of uncertainty into opportunities for informed action — fostering greater clarity throughout every step of her health journey.
>
> **— Neta Gotlieb, PhD**
> Senior Manager of Product, Women's Health

How Saša M. Uses Oura to Manage Perimenopause & Align With Her Body Clock:

When Saša started perimenopause two years ago, she started experiencing bloating and ovulation pain, as well as shorter cycles and heavy periods. Using Cycle Insights and her doctor’s guidance, she learned that she could monitor how her body was responding to hormone replacement therapy by tracking her temperature trends and symptoms.

> “
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> With the recommendation of my doctor, I took bioidentical progesterone, which I had been prescribed. I was then able to spot the same temperature rise on Oura and physical symptoms as when I ovulate and move into my luteal phase. Having access to this information about my body makes me feel empowered.

Featured Partnerships

CARROT

CARROT FERTILITY

Clue

CLUE

EVERNOW

EVERNOW

MAVEN

MAVEN

MidiHealth

MIDI HEALTH

Natural Cycles

NATURAL CYCLES

Cardiovascular Health

Cardiovascular Health

Cardiovascular disease (CVD) is the leading cause of death globally, contributing to nearly one third of all deaths worldwide. According to the American Heart Association, annual healthcare costs for cardiovascular conditions are expected to increase from $393 billion in 2020 to $1,490 billion in 2050. In 2020, a US adult receiving care for hypertension generated an average of $2,500 in additional healthcare costs compared with an individual of the same age, sex, and risk factor burden but without hypertension. Outside of these direct costs, we know that poor cardiovascular health reduces overall quality of living and productivity.

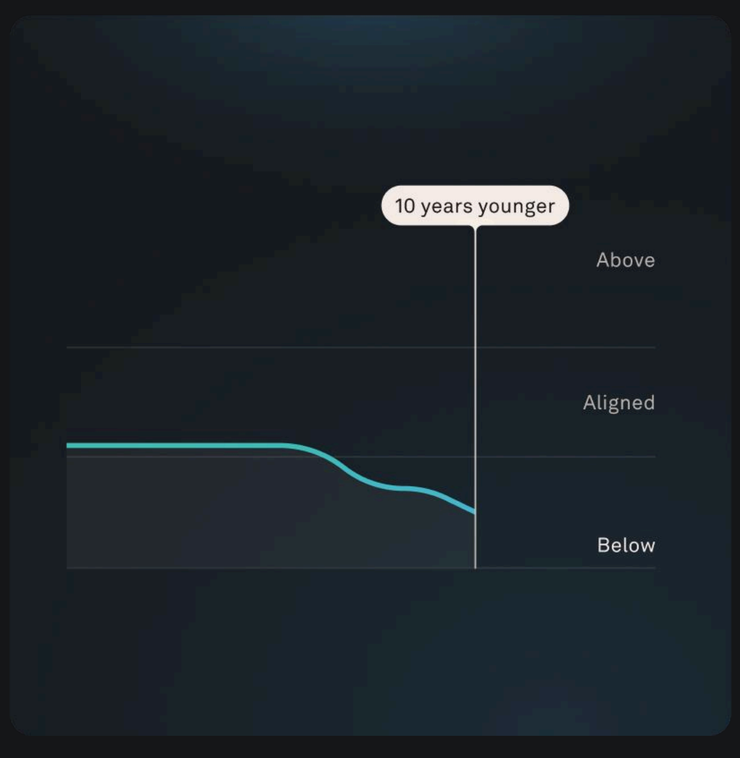
The good news is that regular physical activity, high-quality sleep, and a healthy diet have been shown to improve cardiovascular outcomes by reducing key risk factors such as hypertension, obesity, and type 2 diabetes. Scalable prevention strategies rooted in daily behavior remain one of the most effective tools for promoting cardiovascular health and combating acute risk.

To truly shift the trajectory of cardiovascular disease, we must combine proven lifestyle strategies with proactive, data-driven approaches. Oura Ring now makes it possible to identify early signs of cardiovascular risk through our metrics, which provide our members insights into their resting heart rate, heart rate variability, sleep quality, and activity. Monitoring cardiac trend data, both positive and negative, can support patients and their healthcare providers in understanding risk and opportunity for personalized interventions that can help reduce long-term disease burden and improve outcomes.

Heart Health Features

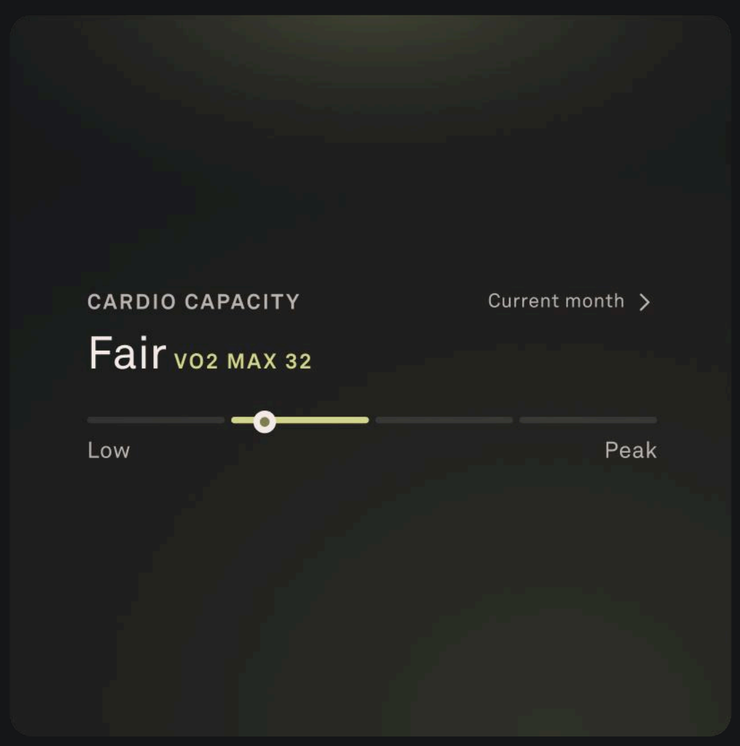
BLOOD PRESSURE PROFILE STUDY

A new investigational Blood Pressure Profile study will be available in Oura Labs for voluntary participation from members. This research may help Oura develop a feature intended to enable members to spot hidden hypertension risks. With learnings from this study, Oura plans to refine Blood Pressure Profile in pursuit of FDA clearance.



CARDIOVASCULAR AGE

Cardiovascular Age provides an estimate of how an individual's vascular system may be aging compared to their chronological age. This metric can support health awareness and help inform lifestyle decisions aimed at improving long-term cardiovascular outcomes.



CARDIO CAPACITY

This feature provides an estimate of an individual's VO2 max, or how efficiently the body supplies oxygen to muscles during exercise, often considered a benchmark for cardiovascular and respiratory system health. Higher cardio capacity has been associated with delayed onset of chronic diseases and better long-term heart and organ health.

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HEART RATE

Oura Ring features optical sensors that monitor heart rate 24/7. This can be used to monitor resting heart rate and restorative time as well as workout heart rate during exercise.

HEART RATE VARIABILITY

Heart rate variability (HRV) is the measurement of variation in time between heartbeats, reflecting the balance and responsiveness of the autonomic nervous system. HRV is used to assess stress, recovery, cardiovascular health, and autonomic function, and it is increasingly applied in areas like mental health, chronic disease management, and early illness detection.

Clinical Spotlight

Oura Ring can be a helpful supportive device along the heart health continuum.

PREVENTION AND LIFESTYLE MODIFICATION

Patients that require behavior change support can use Oura to track their exercise and subsequent metrics, as well as dig in with Advisor for coaching and additional support.

REMOTE CARDIOVASCULAR RISK TRACKING

For patients with known risk factors, such as hypertension, diabetes, obesity, or a family history of cardiovascular disease, Oura provides continuous monitoring of resting heart rate and HRV.

MONITORING CARDIOVASCULAR RECOVERY AND FUNCTION (POST ACUTE EVENT)

Oura can be a powerful tool in cardiac rehabilitation by providing continuous, personalized monitoring that supports recovery and guides future healthy behavior. Wearable personal activity monitoring devices have been proven to increase activity among patients in the maintenance phase of cardiac rehabilitation and are associated with increases in physical activity and aerobic capacity compared with cardiac rehabilitation alone. By tracking daily activity levels and Readiness scores, Oura can help patients gradually increase physical activity within safe limits.

HEART DISEASE MANAGEMENT

For heart disease patients, knowing when to rest vs. be active is critical, and the Readiness Score can help avoid overexertion. Tracking changes in trends like increased resting heart rate, reduced HRV, or disturbed sleep may indicate worsening symptoms (eg, fluid overload, arrhythmias) and could prompt patients or providers to take preventative action before a hospitalization is needed.

> “
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> Annual visits are important for my cardiovascular patients but they don’t provide data-supported insights into daily habits that could prevent or impair chronic disease. Oura gives people a non-invasive and interactive way to understand their cardiac health at baseline and see over time how positive lifestyle behavior changes improve their metrics. Wearables are a powerful tool for prevention and longevity. Alongside traditional clinical evaluation they can add depth of understanding of our patients so we can provide personalized recommendations for improving their health.
>
> **— Jag Singh, MD**
> Oura Medical Advisory Board Member, Professor of Medicine at Harvard Medical School

Featured Research

The GONDOR-AS Trial: Our first randomized, controlled, clinical trial, will assess the ability of Oura Advisor, our AI-powered, personalized wellness coach, to study the difference in different exercise protocols in improving aerobic fitness. During this trial, which will be conducted in collaboration with Kuopio Research Institute of Exercise Medicine (KuLTu), participants will be randomly allocated to Group A (follow the advice given by the Oura Advisor), Group B (attend supervised exercise sessions) or Group C (a control group without supervised exercise or Advisor.)

The study aims to answer:

- Can an AI-based Advisor provide useful exercise guidance that helps improve cardiovascular health and aerobic fitness?
- Is there a difference between attending supervised high-intensity interval (HIIT) training sessions and following personalized exercise instructions for steady-state aerobic training?
- What can we learn about participants' health behaviors and how they interact with an AI-powered tool, such as Oura Advisor.

> “
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> The GONDOR-AS trial places Oura at the forefront of innovation—not only applying AI to benefit our members, but actively studying how to improve it using rigorous scientific methods.
>
> **— Pauli Ohukainen, PhD**
> Staff Research Scientist at Oura

Innovation Spotlight

Three months after launching a Heart Check-in questionnaire, over 460,000 members responded. The results showed that the prevalence of cardiovascular disease and high cholesterol rises sharply after age 45 among members. At age 45 less than 20% of respondents reported high cholesterol and cardiovascular disease but by age 70, this rose to over 35% with high cholesterol and over 40% with hypertension. Members also shared data about their lifestyle behaviors such as smoking and alcohol consumption habits that can lead to cardiovascular disease. Insights like these help guide Oura's efforts to promote health and support members managing chronic health conditions.

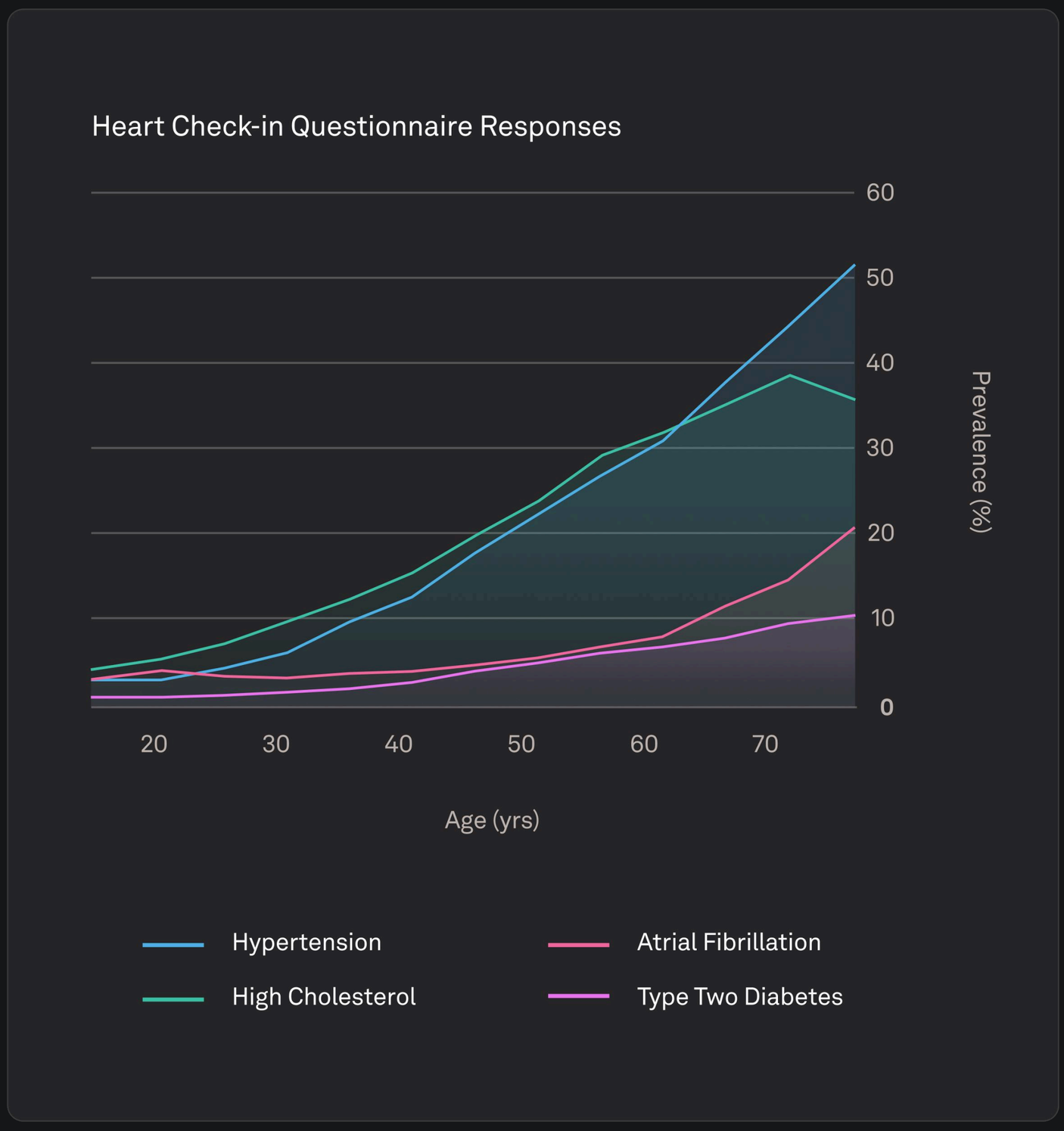


Figure 1. Results of Heart Health Check-in questionnaire

> Our scientific work focuses on building powerful, large-scale algorithms that learn the fundamental patterns of cardiovascular health directly from Oura Ring sensor data. By combining these advanced models with insights from our community, we can translate complex physiological signals into early and accurate assessments of cardiovascular and metabolic conditions. This research is crucial for creating a new generation of tools that help monitor health and identify risk on a large scale.
>
> **— Raphael Vallat, PhD**
> Staff Machine-Learning Data Scientist

Member Spotlight

An Oura member, who requested to remain anonymous, reported that their husband's Oura Ring detected significant physiological strain, including elevated heart rate, a marked drop in heart rate variability (HRV), and increased temperature trends. Although he only reported feeling "off," the concerning data prompted him to visit the emergency department for evaluation, particularly given the elevated heart rate. He was diagnosed with a silent myocardial infarction (or heart attack) that had occurred the night before, and imaging revealed that one of his coronary arteries was nearly completely blocked. A stent was placed to restore adequate blood flow.

Oura Ring Identified as a Top Choice for Reliable, Practical Cardiovascular Health Monitoring

A peer reviewed journal article found that after reviewing 216 wearable devices:

- Oura Ring Gen3 was one of only 20 devices that met all five selection criteria.
- Oura Ring delivered high accuracy and precision for HR and HRV.
- It was validated specifically in healthy adults, aligning with the target population.
- Oura Ring scored high in feasibility across all domains: comfort, usability, battery life, data access, and software control.

Featured Partnerships

Kuopio Research Institute of Exercise Medicine

National University of Singapore Project RESET, Singapore's flagship heart health research initiative focused on cardiovascular disease prevention.

NUS National University of Singapore | Centre for Sleep and Cognition
Yong Loo Lin School of Medicine

Metabolic Health

Metabolic Health

Metabolic health is central to how our bodies function every day, shaping everything from energy levels and weight management to long-term disease risk. Greater awareness of how our bodies respond to nutritional intake can benefit everyone, whether the goal is to fine-tune daily diet and performance or to manage chronic conditions like diabetes or metabolic syndrome. Yet, an estimated 78% of Americans are not metabolically healthy, even if they have not been formally diagnosed with a disease. Those diagnosed with metabolic syndrome, a cluster of cardiometabolic conditions, are at increased risk for cardiovascular disease, liver complications, and cognitive dysfunction. Poor metabolic health often precedes obvious illness, making it a powerful early warning sign.

We view metabolic health not as a fixed state but as a spectrum that can be strengthened, maintained, or improved over time with the right tools and awareness. We believe data-driven insights empower individuals to better understand where they fall on that spectrum and how their daily choices influence long-term outcomes. Nutrition, physical activity, stress management, and restorative sleep work together as the foundation of metabolic health, shaping how effectively the body regulates blood sugar, processes energy, and protects against disease. Whether the goal is to reduce the risk of a chronic condition, optimize everyday performance, or manage health after a diagnosis, Oura can support members along the way.

Healthcare Spotlight

According to a Kaiser Family Foundation report, “on average, privately insured people with an obesity diagnosis have higher total and out-of-pocket spending than people without an obesity diagnosis – nearly double the annual costs.”

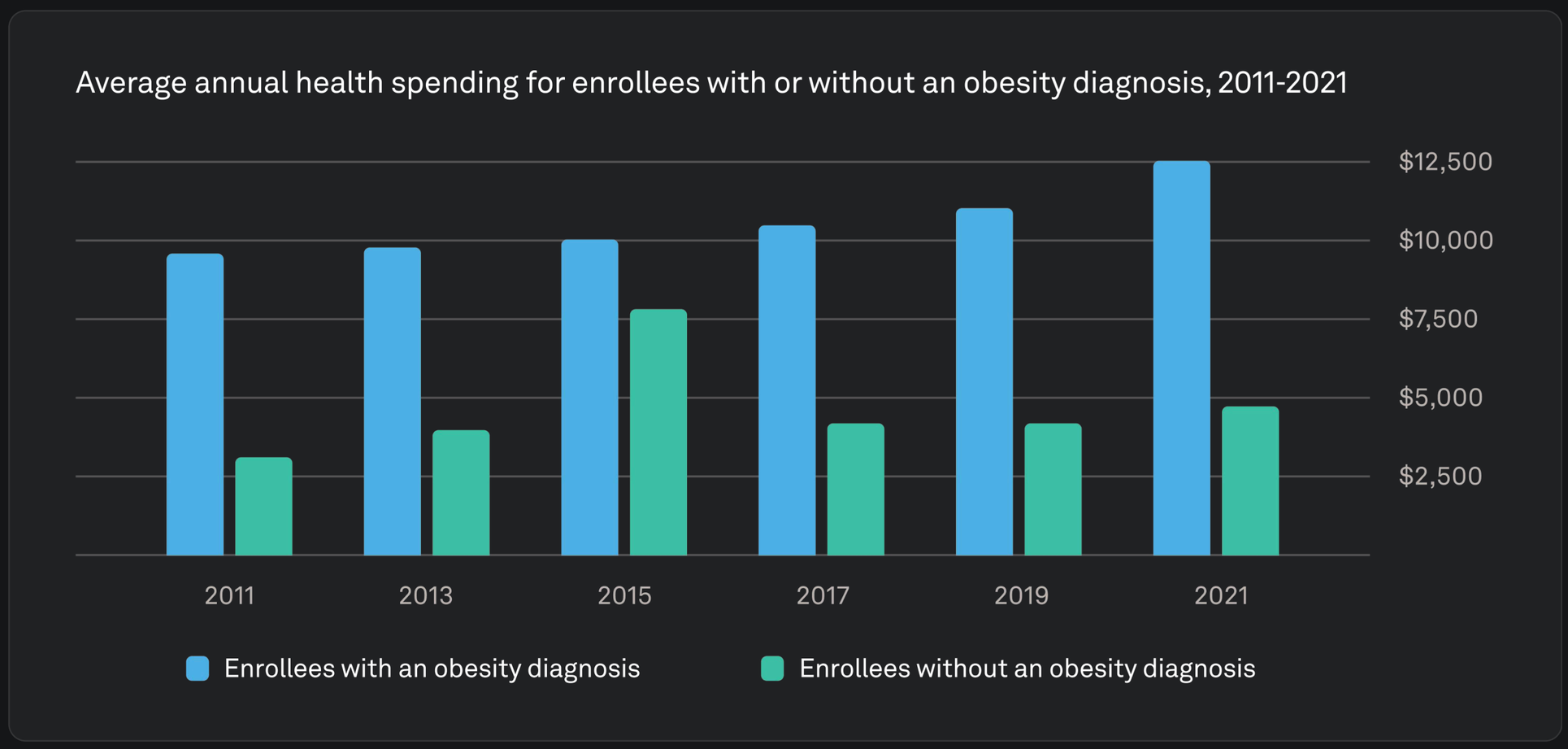
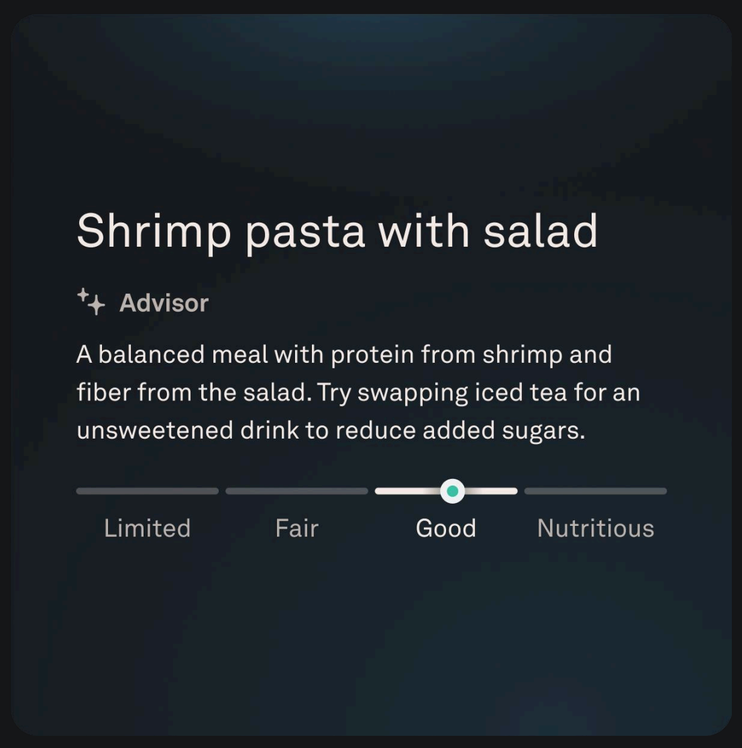


Figure 2. Average annual health spending for enrollees with or without an obesity diagnosis, 2011-2021. Note: Includes enrollees with insurance plans from large employers who have diagnosis of overweight or obesity. Source: KFF analysis of Merative MarketScan Commercial Database, 2011-2021.

However, medical and surgical treatment options for obesity are also expensive. The average cost of bariatric surgery is between $17,000-$26,000 USD. The annual cost of GLP-1s can range from $12,000-$16,000 per person, per year, which can strain budgets for both employers and insurance plans. Additionally, both surgical and medical treatment are often recommended alongside nutritional and behavioral support. The American Society for Metabolic and Bariatric Surgery states that, “Patients should expect to have a new lifestyle that combines healthy eating, exercise, and regular visits to healthcare providers. This approach will offer the best chance for success to prevent weight regain and return of medical problems.”

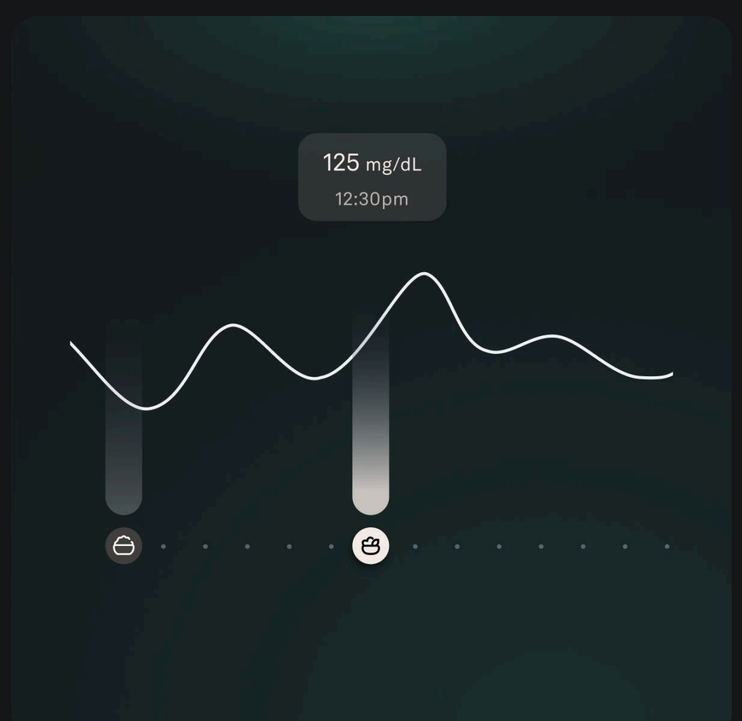
Oura can help members transitioning off GLP-1 medications or recovering from bariatric surgery monitor how their bodies respond to rapid changes in weight, appetite, and energy levels. By tracking key signals like sleep quality, resting heart rate, activity, and heart rate variability, Oura supports personalized recovery and sustainable long-term habits.

Metabolic Health Features



MEALS

When members upload photos of their meals in the Oura App, AI analyzes the dish to provide an overview of its nutritional contents. Oura Advisor then provides immediate feedback on nutritional choices to help members build satisfying, nutrient-dense meals that support energy and satiety, while reducing crashes and cravings.



GLUCOSE BIOSENSING

Through our partnership with Dexcom, Oura Members can purchase a Stelo Glucose Biosensor, the first FDA-cleared, over-the-counter glucose biosensor, directly from the Oura website. When paired with Oura, members can view their glucose patterns in the Oura App, revealing how meals, activity, sleep, and stress affect their levels, so they can make choices that help them feel their best and better manage their energy levels.

One month after launching the Stelo partnership, we found that Oura members monitoring their glucose levels are engaging with Oura close to 6 times a day, nearly twice the average.

stelo

NUTRITION LEVEL

Nutrition Level helps Oura Members understand how eating habits impact energy, recovery, and wellbeing. This feature focuses on four key factors: fiber, protein, added sugar, and the level of processing, offering instant feedback and daily insights. Each logged meal's Nutrition Level is calculated based on Oura's estimates for these four contributors. High fiber and protein, low added sugar, and unprocessed natural foods result in a higher nutrition level. It empowers members to make gradual, sustainable improvements, without rigid dietary rules.

HEALTH PANELS

Oura Members can schedule blood work directly from the Oura App at 2,000+ convenient Quest locations across the United States. The blood panel measures 50 biomarkers. Members can easily see their results within the Oura App and chat with Advisor about their results and get practical tips for how to improve their metrics.

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Featured Research

The GLU 24/7 Study is a two-year research project in Norway examining how rotating night shift work affects blood sugar regulation and heart health. Researchers are following factory workers, some on rotating shifts and others on regular day shifts, using wearable devices like Oura Ring, continuous glucose monitors, blood tests, and fitness assessments. The goal is to understand how shift work disrupts the body's internal clock and contributes to early signs of metabolic and cardiovascular disease. Findings from this study could inform more effective health strategies for night shift workers.

GluCare employs a hybrid care model that combines in-person clinical visits with continuous virtual monitoring to support metabolic health. The virtual component integrates wearable devices, including Oura Ring, with mobile apps that track behaviors and health metrics in real time. This model has shown promising results. Within just three months, patients demonstrated notable improvements in key health parameters, with sustained outcomes observed at the 12-month mark. In a year-long study, patients who adhered to the program experienced a significant drop in HbA1c levels by 1.54 points among adherent participants, compared to just 0.1 points in non-adherent participants, highlighting the impact of consistent engagement. Additionally, blood pressure improved among the 89 study participants, with systolic pressure decreasing by 3.1 mm Hg and diastolic by 3.4 mm Hg.

Member Spotlights

Hanna-Mai R. realized that she had come to have an unhealthy relationship with sugar, which she thought may also be contributing to poor sleep. She challenged herself to avoid sugar, soft drinks, fast food, chips, cakes, and avoid bread and pasta when possible. This impacted her data in remarkable ways – her Readiness and Sleep scores improved, but she also saw significant improvements in her resting heart rate and HRV. Following a one-month sugar-free challenge, Hanna-Mai committed to a 98% sugar free lifestyle which has led to 22 pounds of weight loss, improved energy, better sleep, and even clearer skin, in addition to keeping her Oura metrics on track.

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> Going sugar-free impacted my Oura data in ways I didn’t expect! The most interesting changes were my nighttime resting heart rate (RHR), which dropped quite significantly, and my heart rate variability (HRV), which increased.

Jerome S., a triathlete, three-time Ironman athlete, and health optimization enthusiast, uses Oura to fine-tune his athletic performance, support his recovery, and track his sleep, meals, and glucose. The overlay of glucose data with activity and nutritional intake combined with insights from Advisor has helped Jerome adjust his habits, such as adding a 10-minute walk after eating to lower a glucose spike.

> “
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> I’ve paired the Stelo Glucose Biosensor with Oura to better understand how food impacts my glucose, and I use the Meals feature to log my meals. I don’t have diabetes, but I’m always looking to optimize.

> “
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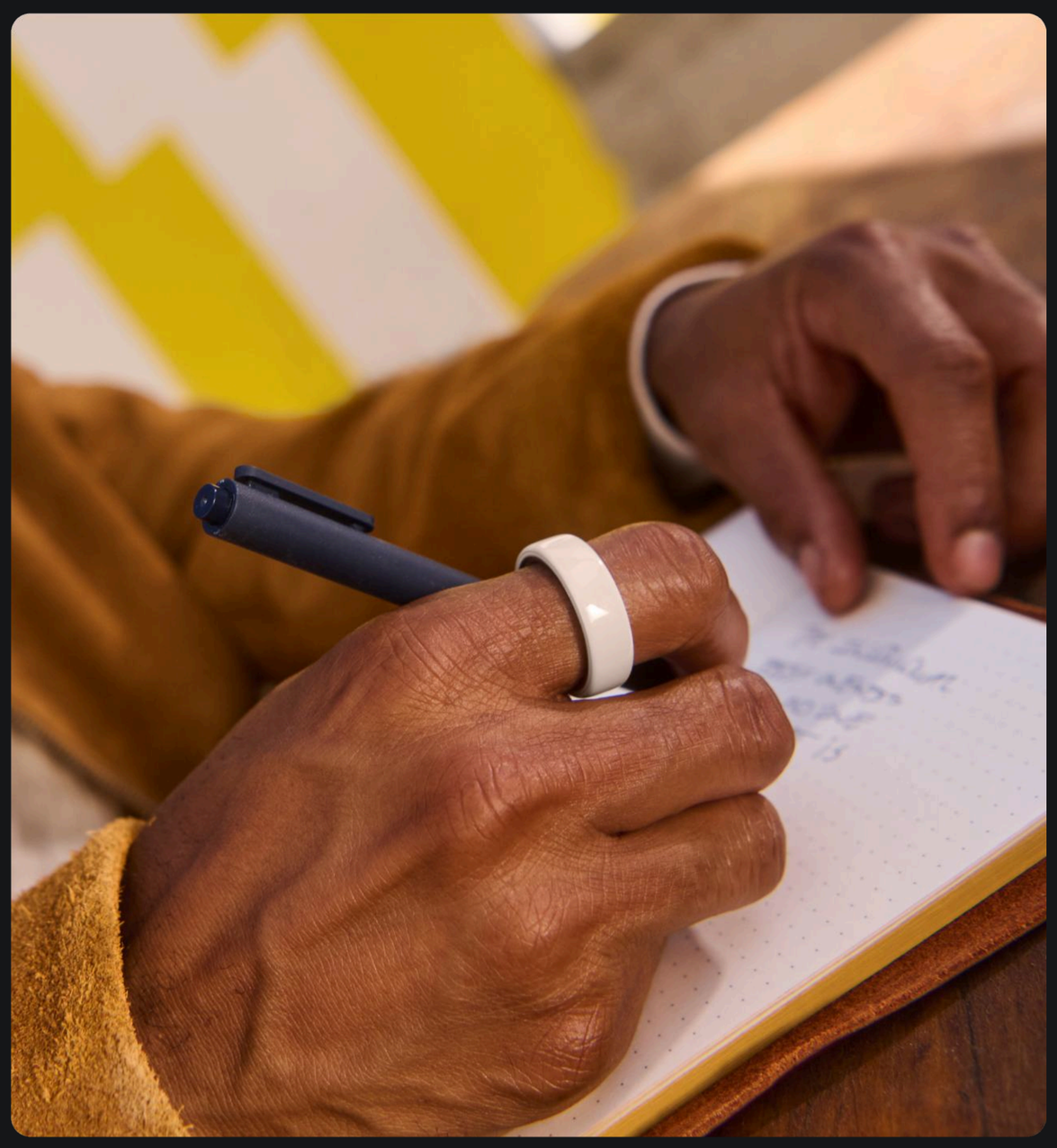
> As the first-to-market glucose biosensor and smart ring integration, Stelo by Dexcom and Oura are providing personalized insights and guidance that are essential for helping individuals understand how their lifestyle choices impact their bodies. By integrating real-time glucose data from Stelo, users can immediately understand the impact of every health behavior, empowering them to make informed decisions and work towards achieving optimal metabolic health.
>
> **— Matt Dolan**
> Executive Vice President of Strategy and Corporate Development at Dexcom



Mental Health and Stress

Mental Health and Stress

Nearly half of all people will experience a behavioral health condition before they turn 75 — ranging from mood disorders to substance abuse. As of March 2023, 160 million Americans live in areas with a shortage of mental health professionals, making virtual and digital solutions an essential part of expanding access to care. Mental health disorders are also a leading cause of disability worldwide, affecting over 970 million people and placing a significant emotional and financial burden on individuals and healthcare systems alike.

Mental wellbeing is closely tied to sleep, stress, and daily routines. Oura empowers members with personalized insights into both daily stress and restorative patterns, helping them identify triggers, build resilience, and make informed changes. Whether through tracking data, accessing in-app content, or chatting with Advisor, members can proactively manage their mental health in ways that fit their daily life. Oura has also contributed to cutting-edge research that points to the role of temperature trends dysregulation as it relates to depression.

At Oura, we view mental health not as a reactive need, but as a proactive, everyday practice. As the mental health crisis deepens, wearable technology like Oura Ring can help bridge gaps in care, empowering individuals with tools to manage emotional wellbeing and build sustainable coping strategies.

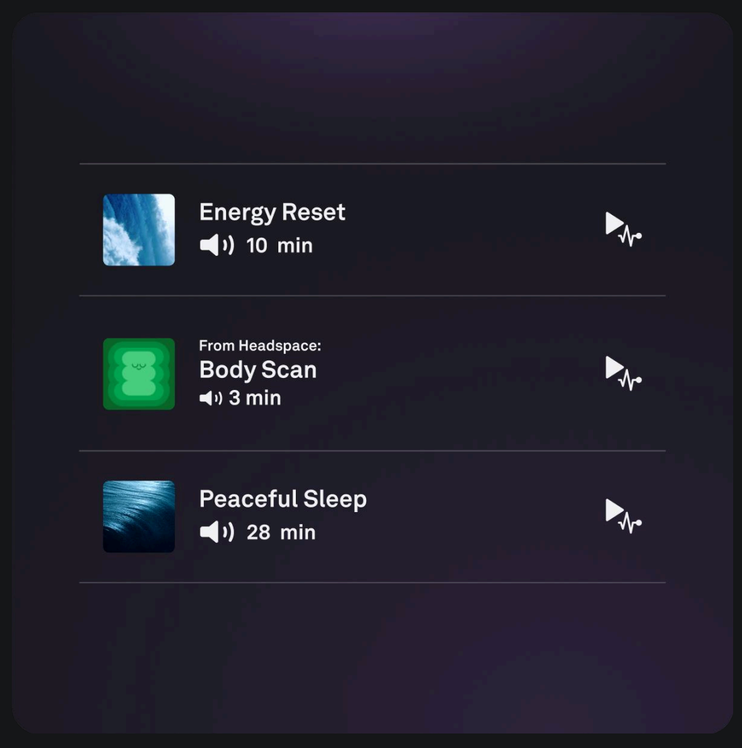
Key Features

DAYTIME STRESS

Daytime Stress identifies physiological stress and recovery by continuously measuring small changes in biometrics like heart rate, HRV, and temperature trends. By capturing readings every 15 minutes, members can see which experiences increase their physiological stress, demanding more from their body, and which ones help them recover. The algorithm learns personal baselines to understand individual responses to stressors.

RESILIENCE

Resilience creates an assessment of members' ability to withstand physiological stress by tracking daytime stress load, daytime recovery, and recovery during sleep. Coupled with Daytime Stress, Resilience enables Oura Members to balance stress and recovery by providing insights, education, and recommendations to manage stress and improve overall health.



MEDITATION AND SLEEP CONTENT

Oura Members have access to an in-app catalogue of audio to support breathwork, meditation, and sleep preparation. Meditation and breathwork content specifically offer post-session feedback, which can include heart rate variability, resting heart rate, and skin temperature variation, depending on the session.

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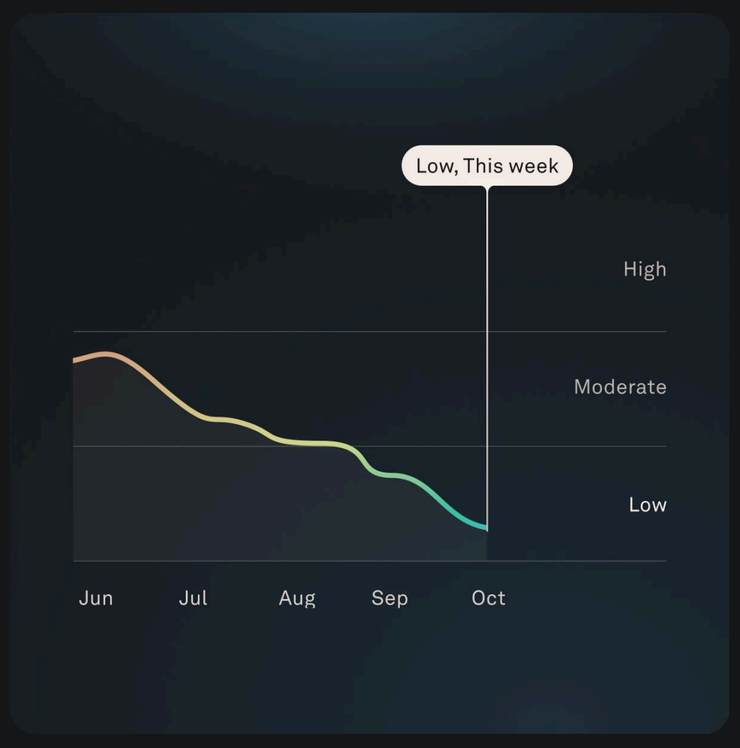

CUMULATIVE STRESS

Cumulative Stress measures the build-up of persistent physiological stress over time. Derived from five contributors: sleep continuity, heart stress-response, sleep micromotions, temperature regulation, and activity impact, it reflects the body's ability to recover and adapt. For those at risk of burnout, it offers data-driven validation of exhaustion, early warning signals for chronic stress, and guidance to make proactive adjustments before negative health outcomes take hold.

> “
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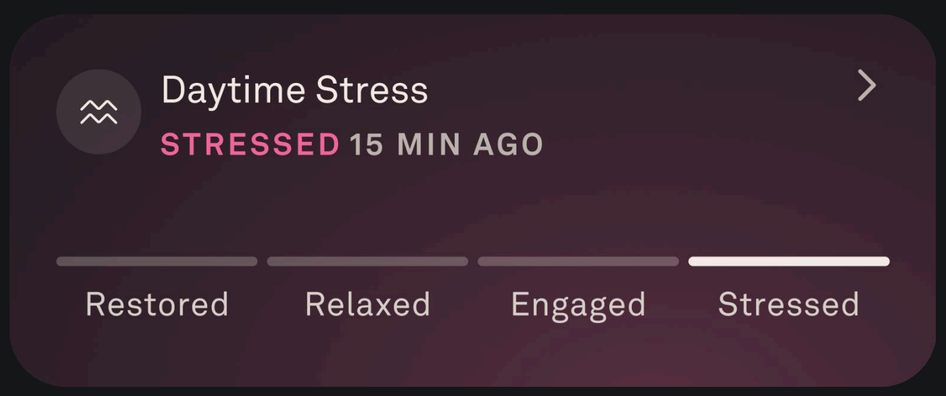
> Physiological stress is a bodily activation state that can stem from mental or physical stressors. With Oura, members learn about their personal stressors and stress reactions, helping them build a sustainable balance of stress and recovery, which is key to long-term wellbeing. Understanding our personal stress responses helps us identify when we need to focus on rest, how stress affects our sleep, and how we can use stress to our advantage — a healthy dose of positive stress may even jumpstart recovery. With a recently launched study in Oura Labs, our team is excited to address gaps in scientific understanding of how physiological patterns relate to subjective experiences of stress at scale.
>
> **— Emmi Antikainen, PhD**
> Senior Data Scientist, Oura

Care Delivery Spotlight

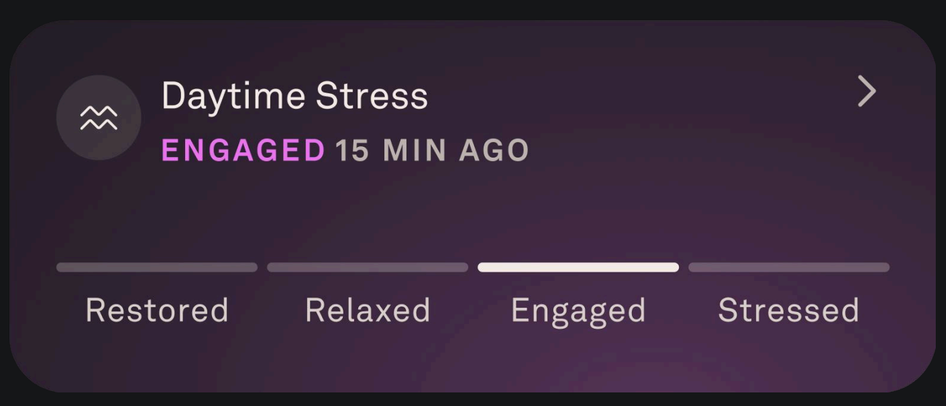
In August 2023, Oura and Talkspace launched a pioneering partnership allowing members to share their sleep data directly with licensed therapists via Talkspace's secure platform. This integration enables therapists to incorporate sleep insights into treatment plans, fostering more holistic and personalized care.

Understanding Stress with Oura



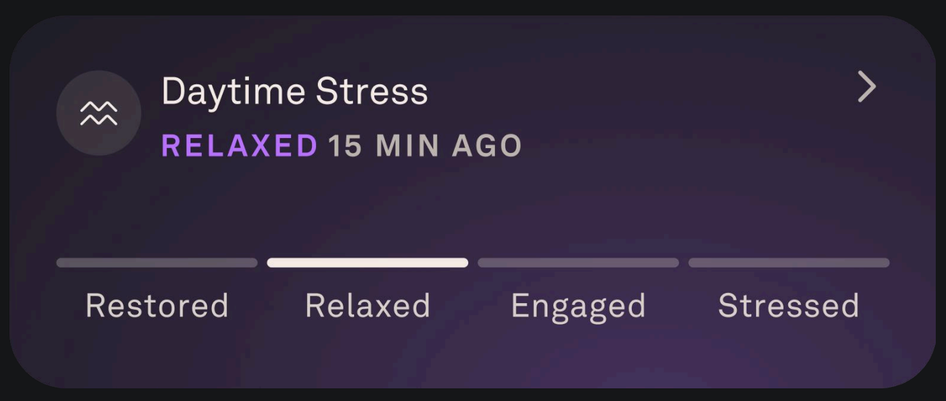
STRESSED

The body is exhibiting clear physiological indicators of stress. While this response is normal, it may signal a need to prioritize restorative activities.



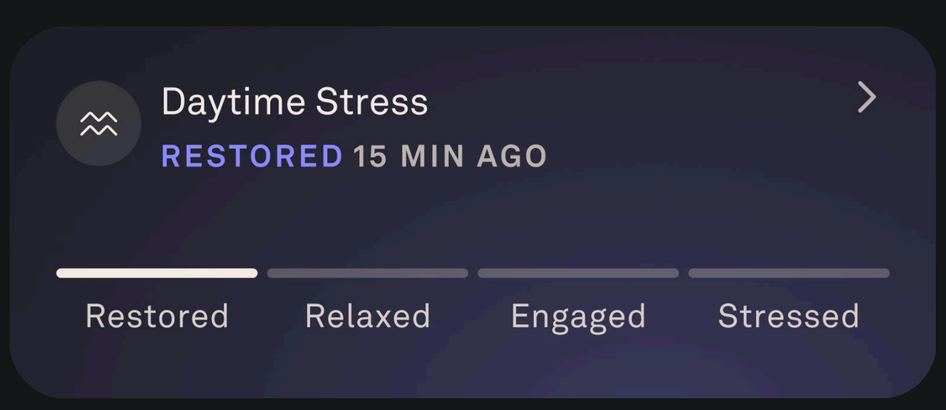
ENGAGED

The body shows elevated stress markers, which may be associated with heightened alertness or performance-driven states.



RELAXED

Physiological signals indicate a transition out of stress and into an early recovery phase.



RESTORED

The body is exhibiting markers consistent with deep physiological recovery and minimal stress load.

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Featured Research

Study Using Oura Data Finds Elevated Body Temperature Associated With Depressive Symptoms

A study used Oura data to explore the link between body temperature and depression. Results showed that higher temperature and reduced variation throughout the day were associated with more severe depressive symptoms.

How Acute Stress Affects Sleep: Large-Scale Observations From Continuous Smart Ring Measurements in Free-Living Conditions

Oura analyzed anonymized data from 45,000+ members to study how short-term stress affects sleep. Findings showed even a few high-stress or low-stress days could meaningfully shift sleep quality and recovery metrics.

Ongoing Study: Dynamics of Suicide Risk Among Perinatal Psychiatric Inpatients Post Discharge

In a pilot study funded by the American Psychological Foundation, researchers at UNC-Chapel Hill are studying sleep and HRV patterns in perinatal psychiatric patients during and after inpatient care to explore links to suicidal ideation and risk.

> “
>
> A decade ago, as an academic sleep researcher, I began exploring how consumer technologies could be used in sleep science. What once seemed experimental has now become transformative. Tools like Oura have revolutionized how we study sleep — making it possible to capture rich, real-world data at scale, across time, and in diverse populations. This innovation is not only expanding our scientific understanding of sleep but also helping us improve sleep health worldwide. We’re now able to explore sleep as a dynamic, individualized process — one that reflects how our bodies and minds respond to life’s challenges, environments, and changes over time. At Oura, we are deeply committed to advancing this field by continuously pushing for high performance accuracy and grounding everything we build in rigorous, peer-reviewed science.
>
> **— Massimiliano de Zambotti, PhD**
> Sleep Neuroscientist, Oura

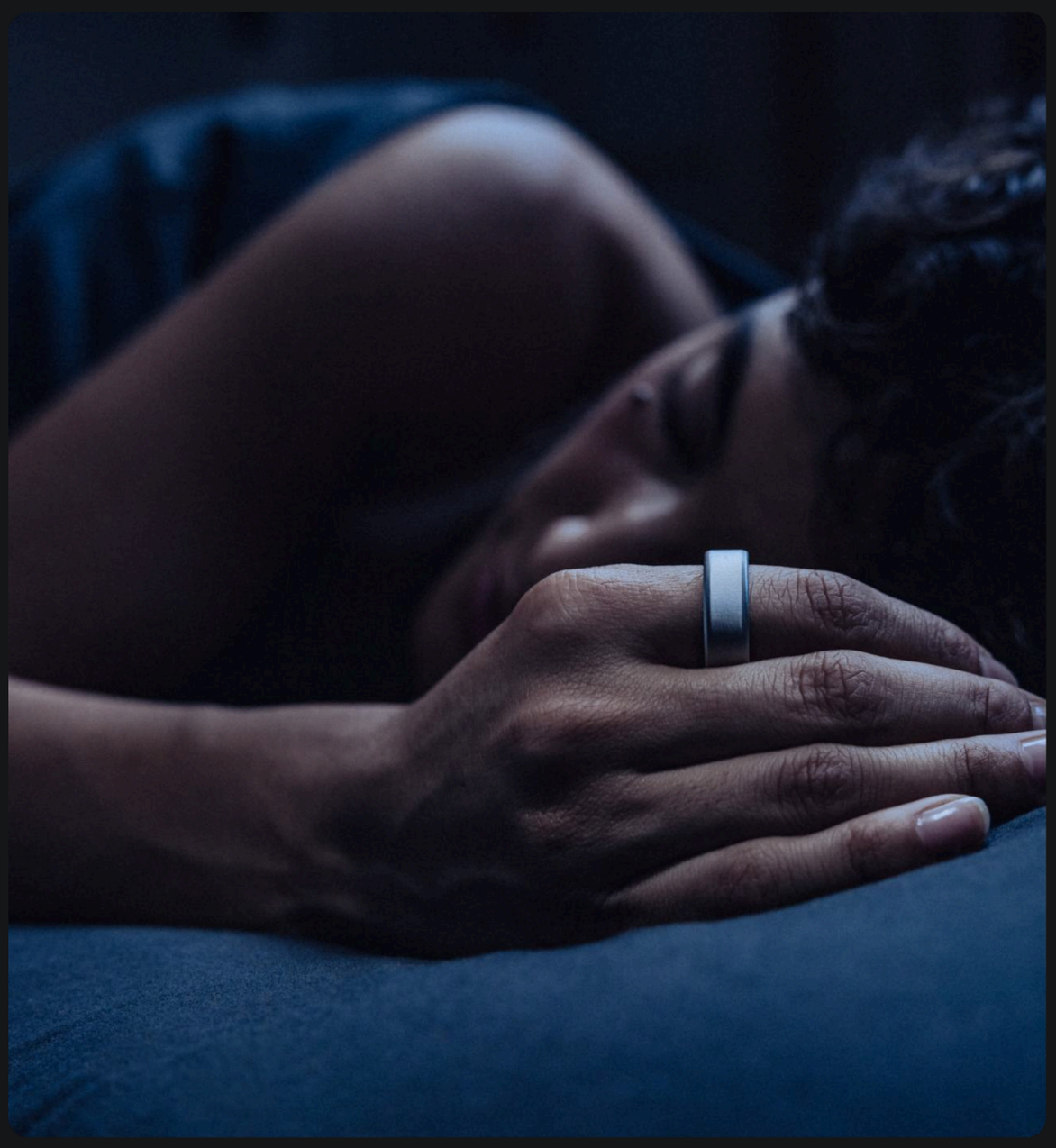
Member Spotlights

Gabrielle B. uses Oura Ring to support her mental health by tracking changes in her sleep quality and HRV. Over time, she noticed that declines in these metrics often signaled the early stages of a depressive episode, sometimes even before she felt symptoms herself. This data allowed her to take proactive steps, such as seeking therapy or adjusting her self-care routine, before her mental health worsened.

> “
>
> I’ve dealt with chronic anxiety and depression throughout my life... Oura has helped me see patterns before it gets so bad that I feel unable to do anything.

Lisa D. uses her Oura Ring to finally see how much she was really sleeping each night, which has helped break the cycle of panic attacks and sleep anxiety. By tracking her sleep efficiency and HRV data, she learned which habits, like earlier dinners and cutting out alcohol, led to more restorative sleep and fewer nighttime panic episodes.

> “
>
> I’m thankfully in a place where my sleep keeps getting better and better. I’ll go weeks before I have any kind of a [panic] episode. It’s not perfect, but now I have the tools to deal with it.



Sleep Health

Sleep Health

As one of the first wearables designed to measure sleep accurately, Oura was built with rest in mind, and sleep remains central to everything we do. High-quality sleep plays a vital role in overall health, impacting mental health, cognitive function, healing, gut microbiome, the immune system, metabolic wellness, reproductive health, and so much more. Almost everything we do, think, or feel can be improved by a good night's sleep.

Well-rested individuals:

- Feel more mentally stable
- Are less reactive
- Report lower stress
- Report lower incidence of depression
- Make decisions more clearly
- Experience better moods

Despite the importance of sleep to so many aspects of health, on average, 39% of American adults between 45 and 64 don't get the CDC recommended seven to nine hours of sleep per night. Over time, the implications of lost sleep manifest in poorer health. Oura Ring enables comfortable sleep monitoring, and insights empower members to identify patterns, optimize routines, and make informed decisions to improve their sleep health over time.

The Economics of Sleep

By prioritizing sleep outcomes among employee populations, employers can expect to save:

$1,685

per employee due to sleep-related absenteeism

$2,548

in lost productivity costs per employee due to sleep-related presenteeism

---

$536,000

savings in annual insurance costs for a 1000-employee company

---

$2.3 billion

in sleep-related expenses can be avoided by a 1,000-employee organization over a 5-year period

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NCS Fatigue Cost Calculator

Key Features

Oura Ring has been validated by health researchers as the most accurate consumer sleep tracker on the market. Within the Oura App, members can see:

SLEEP SCORE

Oura's Sleep Score reflects the quality and quantity of sleep each night. It's calculated using multiple contributors, including total sleep time, sleep efficiency (the percentage of time you spend asleep during the night), latency (the time it takes you to fall asleep), sleep stages, and more.

SLEEP STAGING

Oura provides an overview of sleep structure; it accurately identifies the four phases of sleep: awake, light sleep, deep sleep, and REM, and members can see how long they spent in each as well as total sleep time.

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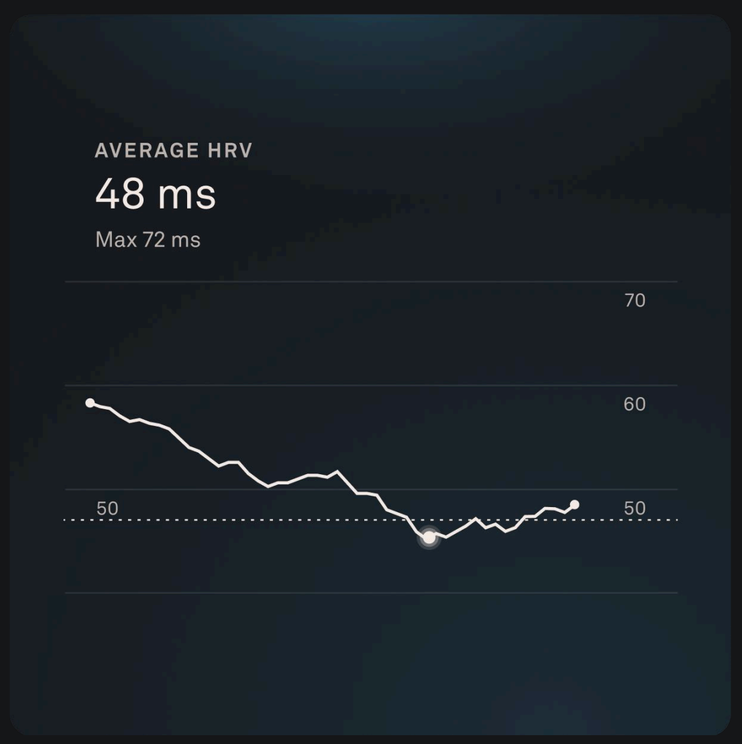
BLOOD OXYGEN SENSING

Oura Ring detects overall blood oxygen saturation levels during sleep. The Blood Oxygen Sensing (SpO2) feature enables Oura Members to monitor their blood oxygen levels and uncover breathing disturbances while sleeping. Within the Oura App, this feature provides two key insights: a metric showing Average Blood Oxygen (%) and an assessment of Breathing Regularity.



SLEEP HR AND HRV

Oura provides an overview of a member's heart rate and HRV trends during the night, which reflect recovery and Readiness.

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Use Cases

Whether it's improving productivity, reducing burnout, or enabling more personalized care, Oura equips organizations and individuals with the tools to make sleep a strategic advantage. With a focus on science-backed insights, we help organizations create environments where people can thrive.

CORPORATE WELLNESS

With rising levels of workplace burnout and fatigue, sleep has become a critical factor in employee wellbeing — and business performance. Research shows that employees who don't get enough sleep are more likely to catch a cold and twice as likely to miss work. From an organizational standpoint, the average U.S. employer can expect an annual loss of $1 million per 1,000 employees due to fatigue. We help businesses address these challenges at the source, by supporting employees with a holistic approach to understanding the balance between rest and health so that they can be at their best.

> “
>
> My team and I had been looking for a wearable health tracker that would provide fit-for-purpose, long-term sleep measurement in healthy persons, which led us to Oura Ring. We have used Oura Ring to study how medical residents sleep under different call schedules, how college students' sleep evolves through their first semester, and how their sleep affects mood, motivation, and sleepiness. We examined differences in sleep patterns across multiple countries, how sleep in older persons relates to their cognitive function, how travel disrupts sleep, and more. Working with Oura's Science team has enabled us to characterize sleep at scale over months of observation, yielding dependable insights that could shape health policy. We have every reason to continue along this journey of co-discovery.
>
> — **Michael Chee**
> Professor and Director of the Centre for Sleep and Cognition at the Yong Loo Lin School of Medicine, National University of Singapore

Sleep Spotlight

OPTIMIZING SCHEDULES TO SUPPORT RESIDENT PHYSICIANS

Researchers at the Centre for Sleep and Cognition (National University of Singapore) studied 96 first-year physicians over eight weeks to compare the effects of different shift models. Residents assigned to balanced 12-hour shifts experienced improvements in sleep quality, mood, and cognitive function, suggesting a more sustainable alternative to traditional 24-hour schedules.

US MILITARY MEMBERS

For more than a decade, Oura has been used by members of the U.S. military across research, training, and health initiatives to support mission readiness, sleep health, and recovery. In publicly documented collaborations — from studying astronaut sleep patterns aboard the Fram2 mission (the first human spaceflight mission to enter a polar orbit) to monitoring fatigue among Navy sailors and enabling early detection of infectious disease — Oura data have contributed to insights on performance and wellness in demanding operational environments. Oura tools and technology have also supported applied research involving Air Force aircrew, veterans, and Warrior Games athletes, helping advance insights into sleep, stress, and performance.

Military personnel are running low on sleep. It shows.

76%
don't get their recommended 7-9 hours of sleep

60%
sleep fewer than 6 hours a night

15-25%
reduction in combat effectiveness with less than 4 hours per night

Source 1, Source 2, Source 3

Featured Research

Oura Ring has become a favorite among researchers interested in measuring associations between sleep and interventions, such as fluid intake and shift work, as well as understanding recovery after acute health events, including postoperative complications, and concussion recovery.

Oura scientists have presented at major conferences on topics such as the link between sleep and cardiovascular risk, and wearable-supported pregnancy health insights, underscoring our commitment to advancing sleep science. Examples include Leveraging Multi-Sensor Wearable Technology: Mapping Cardiorespiratory Health through PPG and Accelerometry at the World Sleep conference as well as New Insights and Opportunities Into Sleep and Pregnancy Health With Wearable Big Data and Digital Health Interventions.

A study conducted by researchers at Brigham and Women's Hospital evaluated the accuracy of sleep-staging algorithms in three consumer wearable devices, including Oura Ring, against gold-standard polysomnography and found that Oura Ring was the most accurate sleep tracker in four-stage sleep classification.

Partnerships

NUS National University of Singapore

NATIONAL UNIVERSITY OF SINGAPORE

Trusted by 800+ Organizations

NON-PROFIT ORGANIZATIONS

DiME

RESEARCH

Duke | BIG IDEAS LAB

KULTU

NUS National University of Singapore | Centre for Sleep and Cognition, Yong Loo Lin School of Medicine

MUSC Medical University of South Carolina

oys

Scripps Research Digital Trials Center

HEALTHCARE DELIVERY

Dexcom CONTINUOUS GLUCOSE MONITORING

ESSENCE HEALTHCARE

EVERNOW

GluCare.Health by metabolic

MAVEN

MEASURED WELLNESS

MidiHealth

Quest

talkspace

APP INTEGRATIONS

Clue

corepower YOGA

Cronometer

headspace

Natural Cycles

THE SCULPT SOCIETY

STRAVA

Zero

PUBLISHED OCTOBER 2025

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Oura Ring is not a medical device and is not intended to diagnose, treat, cure, monitor, or prevent medical conditions or illnesses. Please do not make any changes to your medication, nutrition, or workouts without first consulting your doctor or another medical professional.