

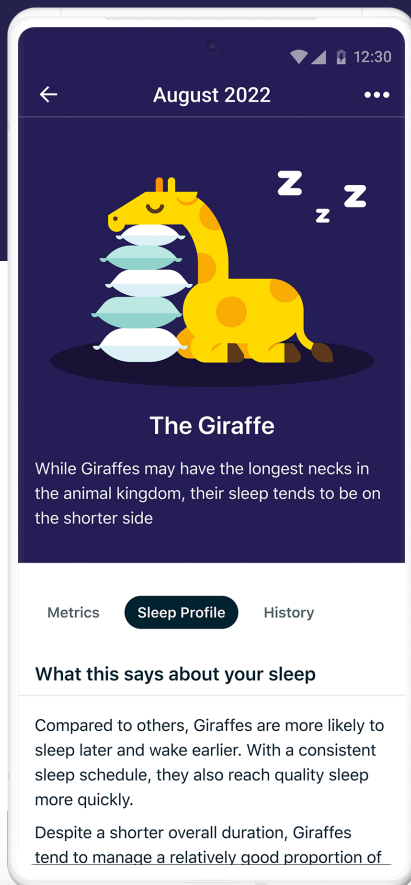
Google Fitbit

# Maximizing Quality Sleep

*How new sleep  
insights can help  
your population  
improve mental and  
physical health*



Sleep impacts nearly every aspect of health—from a person’s daily mood to their appetite to physical activity, chronic conditions, and more. When people sleep well, they tend to be healthier.<sup>1</sup> And let’s be real, we’re all happier when we get a good night of sleep, too.<sup>2</sup>



Fitbit devices can surface insights like sleep duration and time in light, deep, and REM. Our devices deliver a daily sleep score to help people understand sleep quality from the previous night. And now, your users can go beyond nightly sleep metrics to understand long-term sleep trends and behaviors with a new feature, Sleep Profile.

Giving users a deeper understanding of their sleep patterns and tendencies over time, Sleep Profile can empower your population to take proactive steps to help improve sleep quality and their overall mental and physical health.



# A good night's sleep:

# The stakes are high.

Poor sleep is connected to increased potential health risks including diabetes, cardiovascular problems, obesity, poor cognitive functioning and more.<sup>3</sup> By contrast, getting quality sleep can play a critical role in improving the health and wellbeing of your population, including a lower risk of heart disease, improved mental function, and better ability to manage stress.<sup>4</sup>

Recent research even suggests that optimizing sleep duration and quality may be an important means of improving blood sugar control in persons with type 2 diabetes.<sup>5</sup> And this translates to serious benefits for both users and population health plans and systems.

MAXIMIZING QUALITY SLEEP



U.S. adults who report routinely getting less than the recommended 7 hours of sleep on a nightly basis.<sup>6</sup>



## THE FAR—REACHING IMPACT OF SLEEP

### Healthcare Costs

# \$94.9B/year

*Sleep disorders are associated with significantly higher rates of healthcare utilization, placing an additional \$94.9 billion in costs each year to the United States healthcare system.<sup>7</sup>*

### Productivity

# \$226B

*Increasing sleep duration to a 6-7 hr/nightly range in individuals sleeping <6 hours nightly could add \$226B to the U.S. economy through reductions in lost productivity.<sup>9</sup>*

### Health Risks

*Insufficient sleep is associated with:*

- **Weight Gain**
- **Obesity**
- **Inflammation**
- **Cardiovascular Disease**
- **Diabetes**
- **Mortality<sup>8</sup>**



# A sleep lab on the wrist

Thanks to work from neurologists, sleep experts, and research scientists, Fitbit users can now achieve deeper insights into their long-term sleep patterns for a better understanding of their holistic health.

Here's how our new Sleep Profile feature was developed:



## 1.87M

1.87 MILLION  
sleep logs  
collected



## 22B

22 BILLION  
hours of sleep  
analyzed



## 1,000

unique sleep  
features studied

## What exactly does a Sleep Profile analyze?

Fitbit's Sleep Profile feature analyzes sleep across 10 advanced health metrics each month, including five brand-new metrics. It calculates trends and compares them to what's typical for a person's age and sex. When combined with the five existing sleep metrics from Fitbit, users get access to a comprehensive month-long analysis of their sleep patterns and quality. With that information, your population can discover where there's room to improve.



## NEW METRICS, ANALYZED OVER 30 DAYS:



### —BEDTIME CONSISTENCY

The standard deviation of bedtime

### —TIME BEFORE SOUND ASLEEP

The time from bedtime to the beginning of deep, REM, or light sleep

### —DISRUPTED SLEEP

The total number of awakenings with a duration of more than 30 minutes

### —SLEEP STABILITY

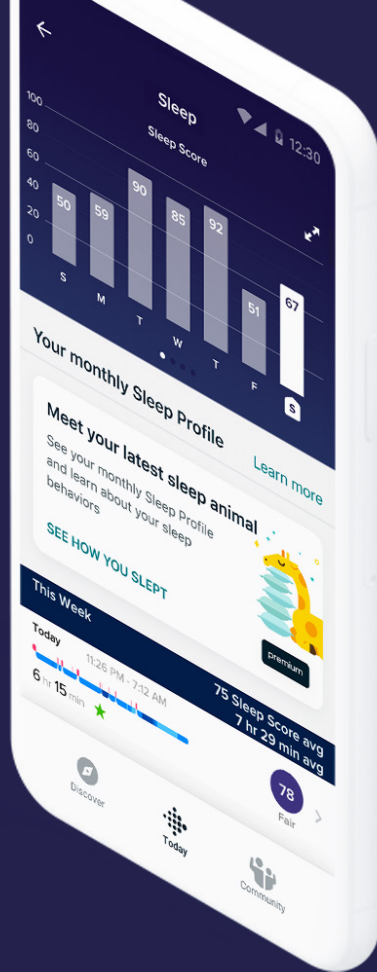
The average number of brief awakenings

### —DAYS WITH NAPS

The percentage of days with daytime naps

Existing metrics: Sleep start time, Sleep duration, Deep sleep, REM sleep, Restfulness





# The 6 sleeping styles

Fitbit's Sleep Profile offers the kind of personalized sleep data once only available in a sleep lab—and that's big news for your users. Critical data points gathered from the user's sleep analysis inform their designated Sleep Animal, which provides a fun and approachable way to understand individual sleeping types:



## DOLPHIN

- Fall asleep late
- Inconsistent sleep schedule
- Light sleeper
- Takes naps



## HEDGEHOG

- Fall asleep late or wake up early
- Shorter sleep duration overall
- Low proportion of REM & deep



## GIRAFFE

- Fall asleep late or wake up early and
- Shorter sleep duration overall
- High proportion of REM and deep



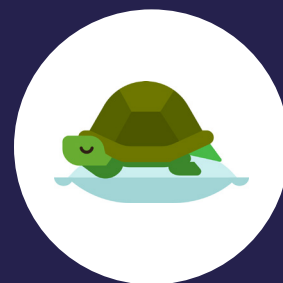
## PARROT

- Consistent bed and wake times
- Good amount of sleep overall
- Can be light on REM (and wake up briefly throughout the night)



## BEAR

- Consistent sleep schedule
- Long and restful sleep
- High proportion of REM and deep



## TORTOISE

- Inconsistent sleep schedule
- Late wake times
- More time in bed overall
- Difficulty reaching sound sleep and lower than average REM and deep


# Living healthier starts with better quality sleep



The path to healthier living starts with giving your population the tools to understand their personal benchmarks and help guide their path forward. Providing numbers and data for your population is a great way to help them effect change. But they also need context.

With Sleep Profile, users get ideal ranges for each metric, and a clear picture as to where they fall within that range. When they better understand their overall sleep and sleep hygiene, they can pinpoint areas to focus on improving—whether it's setting a more consistent sleep schedule or creating a bedtime routine.





*Sleep can have serious effects on mental health and physical health, both positive and negative.*

**Getting a better night's sleep is a win-win scenario for everyone**

Better sleep leads to more energy to spend with family members and friends, better focus at work, and increased ability to manage chronic conditions.

With engagement tools like Sleep Profile, you can help your population understand and improve their sleep, mitigate health risks, and improve health outcomes at scale.

[Contact us](#) to see how a holistic view of sleep patterns can empower your population to make healthy behavior changes.

And for more tips on improving sleep, check out our infographic, "[5 Ways to Get a Perfect Night of Sleep.](#)"

**REFERENCES**

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