



MATTRESSFIRM®

PRESENTS

SLEEP UNCOVERED

How Sleep Affects Performance

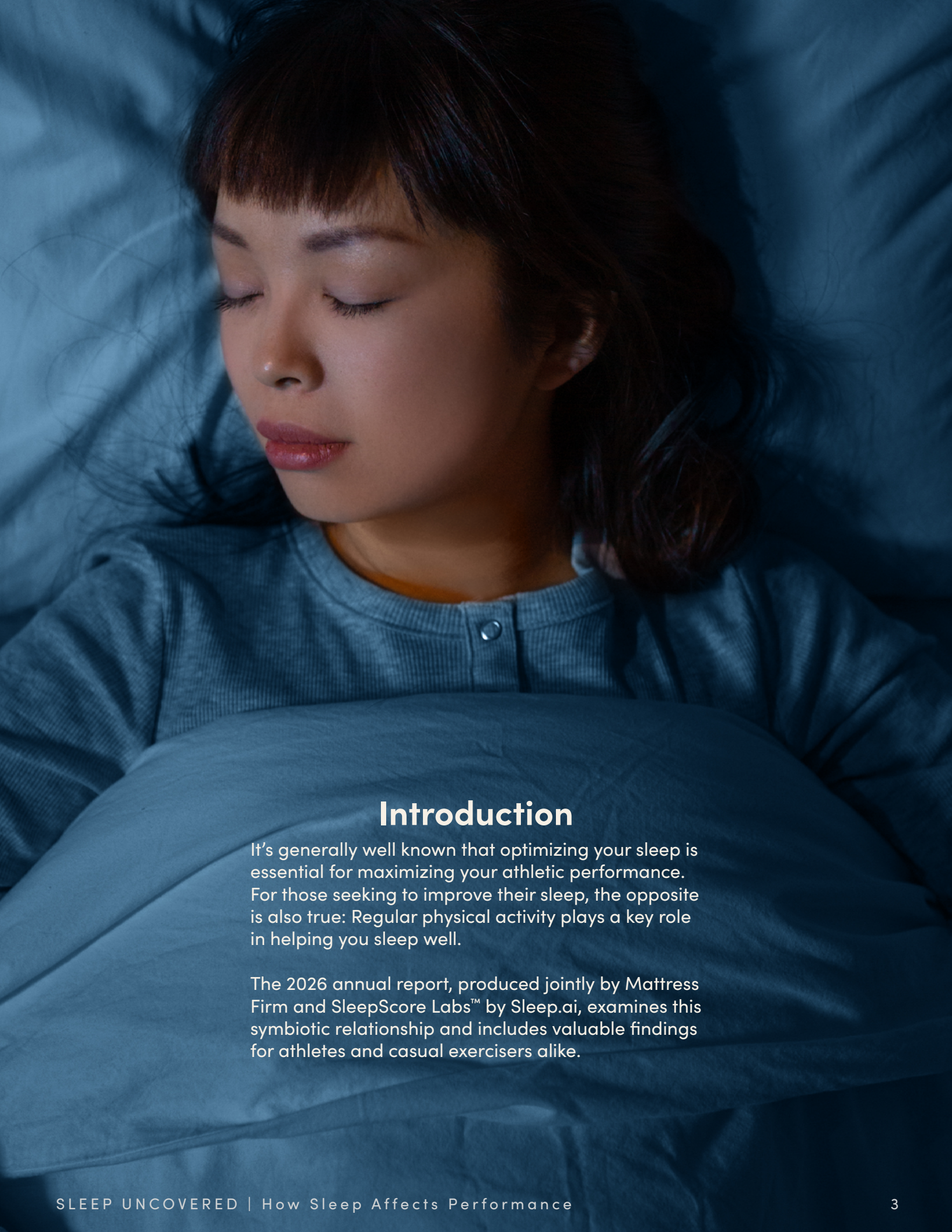


Backed by the science of



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A close-up, low-angle shot of a woman with dark hair and bangs, sleeping peacefully. She is lying in bed, covered by a blue blanket. The lighting is soft and blue-toned, creating a calm and serene atmosphere. Her eyes are closed, and her expression is relaxed.

Introduction

It's generally well known that optimizing your sleep is essential for maximizing your athletic performance. For those seeking to improve their sleep, the opposite is also true: Regular physical activity plays a key role in helping you sleep well.

The 2026 annual report, produced jointly by Mattress Firm and SleepScore Labs™ by Sleep.ai, examines this symbiotic relationship and includes valuable findings for athletes and casual exercisers alike.



Methodology

This year's report combines self-reported information, objectively measured data and previous external research. The majority of the data was collected in 2024.

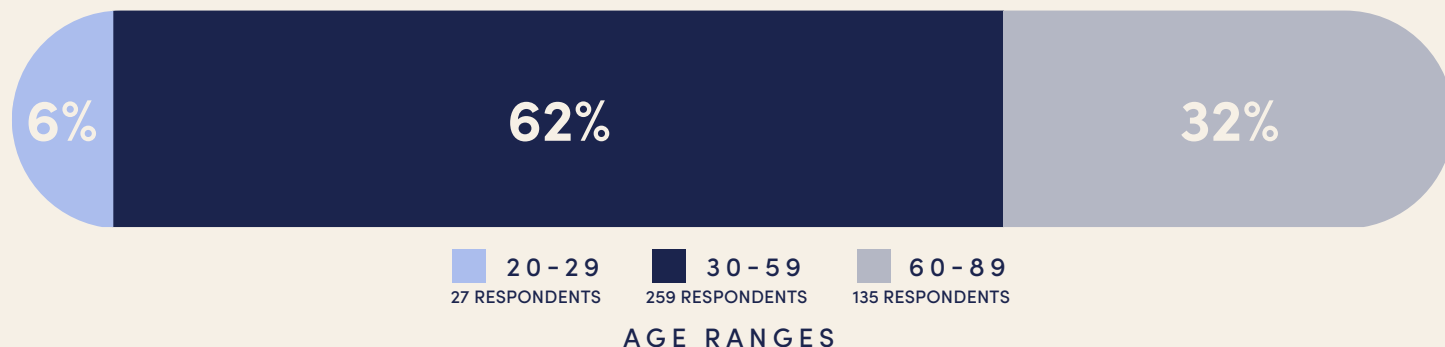
Out of 421 survey respondents, 336 were frequent exercisers (those who reported exercising daily, 4-6 times a week or a few times a week), 74 were occasional exercisers (those who said they exercised once a week, 1-3 times a month or rarely), and 11 said they never exercise.

Of the 420 respondents who disclosed their gender, 281 were female and 139 were male.

Nearly two-thirds of this group—271 participants—used the [SleepScore app](#), which provided objective data about their sleep.

Finally, a select group of eight participants—all athletes—were matched by a Sleep Expert® at Mattress Firm to a sleep system meeting their specifically stated needs. Over a two-week period, those athletes completed questionnaires about their sleep and also provided objective information via [SleepScore Max](#), an external device placed on their nightstands. For more information, see the [Personalized Sleep System](#) section.

RESPONDENTS Ages 20 to 89





Sleep and Exercise Are Mutually Beneficial



How Sleep Enhances Athletic Performance: What the Research Says

Numerous studies have documented the performance-boosting benefits of sleep in a wide range of sports, including [karate](#), [rowing](#) and even [ultramarathon running](#).

Sleep fuels athletic performance in a number of ways, including:

Motivation and energy:

Getting enough sleep boosts overall energy levels, making it easier to stick to exercise goals and look forward to workouts. This was true for many respondents in the SleepScore Labs survey, who noted that poor sleep made it harder to keep their exercise commitments. (On the flip side, exercise frequently provides an energy boost to help counteract poor sleep.)

Learning new skills and information:

Sleep plays a crucial role in [learning](#) and [memory](#), with every stage (other than Stage 1, the transition stage when you're falling asleep) involved in the complex process of analyzing, synthesizing and storing the information you've acquired during your waking hours. When it comes to [improving motor skills](#), such as perfecting a tennis serve, Stage 2 sleep (light sleep) is particularly important. For [declarative learning](#) (learning new information)—anything from a dance routine to a football play—Stage 3 (deep sleep) is key.

Coordination and response time:

Without enough sleep, you may feel less alert and you may even notice that you're thinking less clearly, dragging down your performance. Studies have shown that this decrease in cognitive function translates into slower [response times](#), declines in accuracy and [coordination](#) and even reduced [proprioception](#) (your sense of where your body is in space).

Endurance and strength:

Research shows that workouts feel harder when you're sleep-deprived—even when the workout itself hasn't changed—and that key performance metrics including [endurance and strength](#) are also negatively impacted.

Recovery and healing:

Getting a good night's sleep after exercise is essential for [recovery](#), given the many restorative functions sleep provides both mentally and physically. Sleep is when [growth hormone](#) is primarily released, which plays an essential role in healing everything from injuries to the muscle microtears that can occur during hard workouts.

A high-angle, dimly lit photograph of a man and a woman sleeping in a bed. The man is on the left, wearing a light blue t-shirt, and the woman is on the right, wearing blue and white striped pajamas. They are both covered with a light blue blanket. The room is dark, with light coming from a source off-camera, creating a soft glow on their faces and the bedding.

How Exercise Improves Sleep: What the Research Says

Regular athletic activity is a prescription for a better night's sleep.

"Exercise, particularly in the morning, is probably one of the best things you can do to help your sleep," says Dr. Chris Winter, a neurologist and sleep specialist who works with numerous professional athletes and sports teams, including recent world champions in basketball, hockey and baseball. "It tends to increase sleep amount and sleep depth and reduces wakefulness after sleep onset."

Research shows that exercise promotes sleep through a number of mechanisms, including:

Building sleep pressure:

Exercise helps increase levels of adenosine, a neurotransmitter that builds during waking hours, contributing to feelings of sleepiness.

Reducing stress and [boosting mood](#):

[Higher stress](#) levels can complicate falling or staying asleep, as can mood issues, such as anxiety and depression.

Boosting body temperature:

The exercise-driven increase in temperature is followed by a cooling down [that can help promote](#) sleep by facilitating the [core](#)

[temperature decrease](#) that's part of the sleep process. This decrease, which begins in the hours leading up to bedtime, is part of a (slight) temperature rise and fall that occurs in tandem with the sleep-wake cycle.

Helping regulate circadian rhythm:

Exercise helps synchronize sleep-wake timing by boosting alertness during the day and [encouraging sleep](#) at night. In addition to the temperature-related aspects, exercise [enhances the production of melatonin](#), the hormone that primes feelings of sleepiness.





Exercise Frequency, Preferred Activities and Motivation

Overall, 97% of respondents said they did some type of exercise in the past month, with 80% classified as frequent exercisers (exercising at least 2-3 times a week), including 20% who said they exercise daily.

HOW OFTEN PARTICIPANTS EXERCISED DURING THE PRIOR MONTH

Never	2.6%
Rarely	7.1%
1-3x/month	4.8%
1x/week	5.7%
2-3x/week	25.4%
4-6x/week	34.2%
Daily	20.2%

PARTICIPANTS WHO DON'T EXERCISE (11 RESPONDENTS)

OCCASIONAL EXERCISERS (74 RESPONDENTS)

FREQUENT EXERCISERS (336 RESPONDENTS)

“Exercise is an integral part of my life and gives me an overall sense of well-being.”

What are the guidelines?

According to the U.S. Department of Health and Human Services, adults should aim for 2 ½ to 5 hours of aerobic exercise each week that's moderate intensity, or an hour and 15 minutes to 2 ½ hours of vigorous intensity (or a combination of both).

Among the benefits:

- Improved cognition
- Lower levels of anxiety and depression
- Lower risks for many cancers and chronic health conditions, including cardiovascular disease
- Better sleep

Types of Exercise

Most respondents said that walking/hiking was their primary form of exercise, followed by weightlifting/strength training and then yoga/Pilates.

TOP 15 PRIMARY ACTIVITIES FOR ALL PARTICIPANTS



Note: Participants could select more than one activity, so percentages exceed 100%.



Primary Activities by Gender

Although both males and females preferred walking/hiking, it was more popular among females (83%) than males (69%). Also in the top five for both groups were weightlifting/strength training (46% of females and 52% of males), cycling (25% of females and 39% of males) and running/jogging (24% of females and 26% of males).

Despite these similarities, there were notable differences. Yoga/Pilates was the second-most popular activity for females (48%) but ranked sixth among males (16%). Dance and volleyball appeared in the top 15 activities for females (15% and 4%, respectively) but did not feature among the top activities for males. Conversely, soccer and climbing were included in the top 15 activities for males (4.5% and 3%, respectively) but did not appear in the female top 15.

TOP 15 PRIMARY ACTIVITIES BY GENDER



Note: Participants could select more than one activity, so percentages exceed 100%.



Primary Activities by Age Group

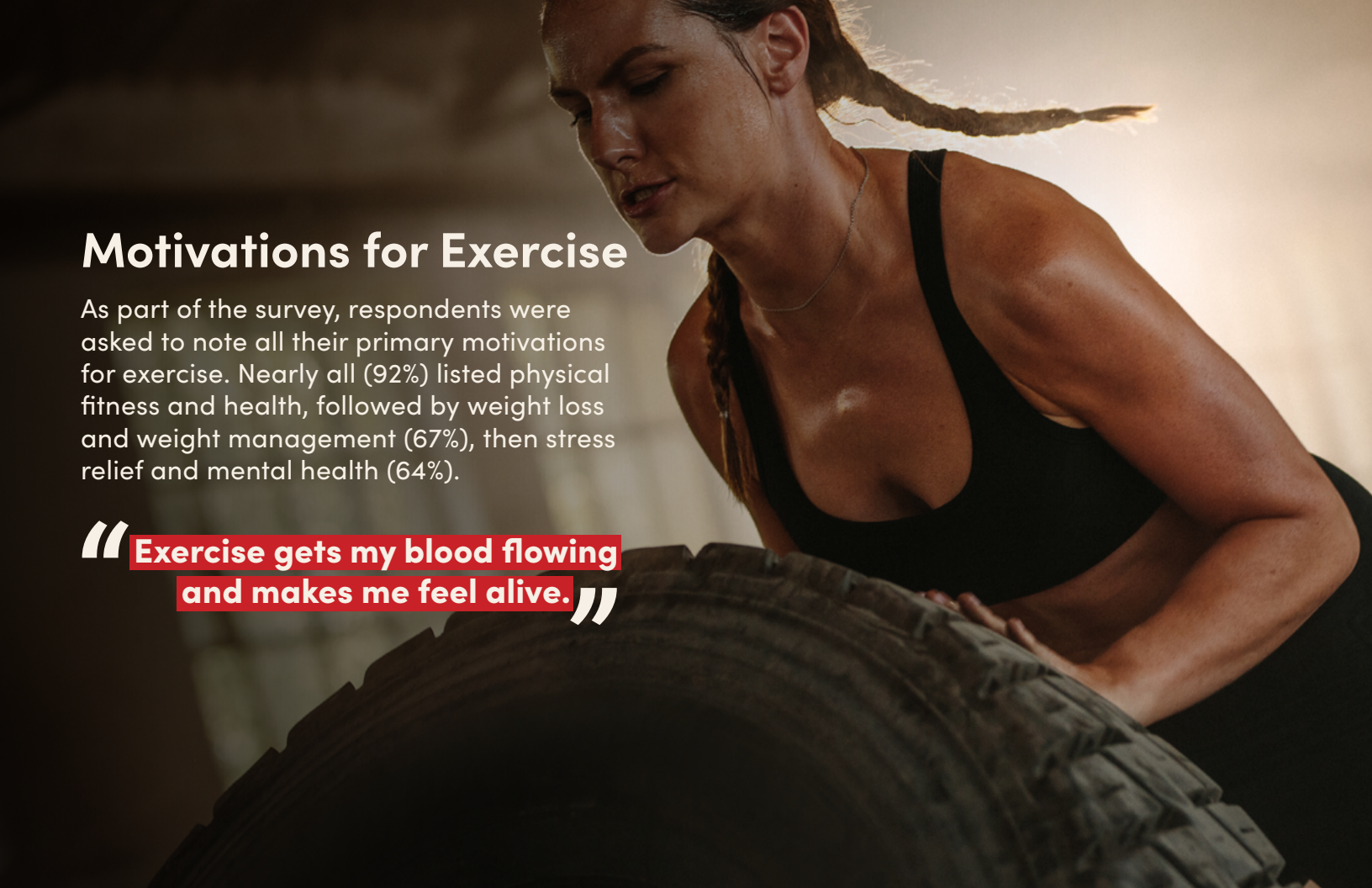
Exercise preferences varied by age group, with older respondents generally shifting away from higher-intensity activities such as running/jogging and CrossFit/HIIT. Walking/hiking was the most popular activity across all three age groups. Among participants aged 20-29 and 30-59, running/jogging remained a top-five activity (52% and 32%, respectively), but it dropped to tenth place among those aged 60 and over (6%). Despite these differences, the top activities across all age groups consistently included walking/hiking, weightlifting/strength training, cycling and yoga/Pilates, mirroring the most popular activities observed across the full sample.

Due to smaller sample sizes, the top 10 activities (rather than the top 15) by age group are noted below.

PRIMARY FORMS OF EXERCISE BY AGE GROUP

Ages 20-29 (27 respondents)	Ages 30-59 (254 respondents)	Ages 60+ (129 respondents)
70.4% Walking/Hiking	79.9% Walking/Hiking	77.5% Walking/Hiking
51.9% Running/Jogging	52.4% Weightlifting/Strength Training	41.9% Weightlifting/Strength Training
48.2% Yoga/Pilates	39.4% Yoga/Pilates	31.8% Cycling
37% Weightlifting/Strength Training	31.9% Running/Jogging	31.8% Yoga/Pilates
29.6% Cycling	28.7% Cycling	18.6% Other
29.6% Swimming	19.7% Swimming	15.5% Swimming
11.1% CrossFit/HIIT	13% Dance	10.9% Golf
11.1% Racquet Sports	12.2% CrossFit/HIIT	9.3% Racquet Sports
11.1% Volleyball	9.5% Other	7.8% CrossFit/HIIT
11.1% Winter Sports	6.7% Golf	6.2% Running/Jogging

Note: Participants could select more than one activity, so percentages exceed 100%.



Motivations for Exercise

As part of the survey, respondents were asked to note all their primary motivations for exercise. Nearly all (92%) listed physical fitness and health, followed by weight loss and weight management (67%), then stress relief and mental health (64%).

“Exercise gets my blood flowing and makes me feel alive.”

TOP REASONS FOR EXERCISING

Physical fitness and health	92%
Weight loss and weight management	67%
Stress relief and mental health	64%
Enjoyment and fun	45%
Social interaction	19%
Competition or event	5%

FREQUENT EXERCISERS' TOP MOTIVATIONS

Physical fitness and health	98%
Weight loss and weight management	68%
Stress relief and mental health	66%
Enjoyment and fun	50%
Social interaction	21%
Competition or event	7%

OCCASIONAL EXERCISERS' TOP MOTIVATIONS

Physical fitness and health	74%
Weight loss and weight management	64%
Stress relief and mental health	54%
Enjoyment and fun	23%
Social interaction	9%
Competition or event	0%



How Do Athletes Sleep, and How Do They View Their Sleep?

A closer look at athlete respondents' sleep duration and perceived sleep needs.

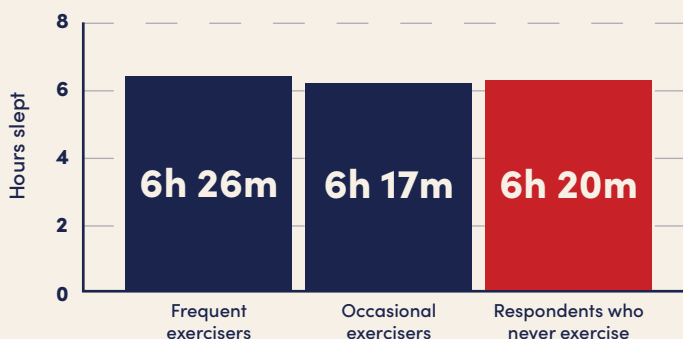


Sleep Duration

Most adults need [7-9 hours](#) of nightly sleep, but there's often a gap between the recommendations and reality. According to the results of a [Gallup poll released in 2024](#), 53% of U.S. adults say they get 6-7 hours of sleep, and 20% say they regularly get less than 5 hours of sleep. Among more than 40,000 SleepScore Max users, [only 30%](#) averaged the recommended 7-9 hours of sleep per night.

The SleepScore Labs survey respondents also generally fell short of the recommended duration, but a clear theme emerged: Whether or not they exercised made a slight difference in their total hours of sleep.

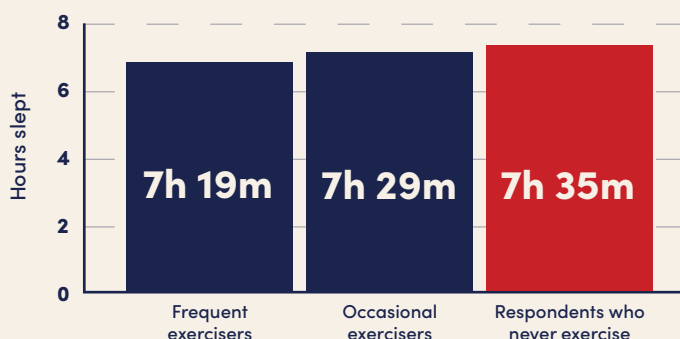
HOW MUCH SLEEP RESPONDENTS SAID THEY GET



Respondents were also asked how much sleep they thought they needed; in all cases, this was higher than the amount of sleep they actually got.

On average, respondents said they needed at least 7 hours of sleep, mirroring the official recommendations. That said, respondents' desired amount of sleep was affected by whether they exercised and how often. Frequent exercisers said they needed 7 hours and 19 minutes; occasional exercisers wanted 10 minutes more (7 hours and 29 minutes), and respondents who said they never exercised wanted an additional 6 minutes on top of that (7 hours and 35 minutes).

HOW MUCH SLEEP RESPONDENTS SAID THEY NEEDED



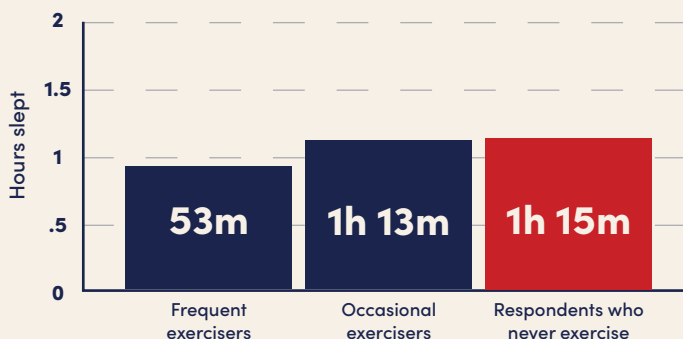
Overall, the self-reported results showed a dose-response relationship: For each categorical increase in exercise frequency (for example, exercising 1-3 times a month compared to once a week), reported sleep need decreased by 3 ½ minutes.

Sleep Debt: The Gap Between Desired and Reported Sleep

By comparing how much sleep respondents reported needing with the amount of sleep they said they [actually got](#), SleepScore Labs was able to calculate their reported sleep debt (the gap between these two measures). They found that exercise frequency made a difference: Respondents who exercised frequently had the lowest amount, with a sleep debt of about 53 minutes. Occasional exercisers had a sleep debt of about 1 hour and 13 minutes, and people who never exercised had slightly more debt (1 hour and 15 minutes).

Also noteworthy: Sleep debt decreased based on exercise frequency, declining by 6 minutes for each of the defined categories (for example, for those who exercised once a week compared to 2-3 times a week).

REPORTED SLEEP DEBT
(Difference between reported sleep
and reported desired sleep)



Sleep debt, or the gap between desired sleep and actual sleep, based on participants' responses, was greatest for those who didn't exercise and lowest for those who exercised more frequently (compared to those who exercised occasionally).

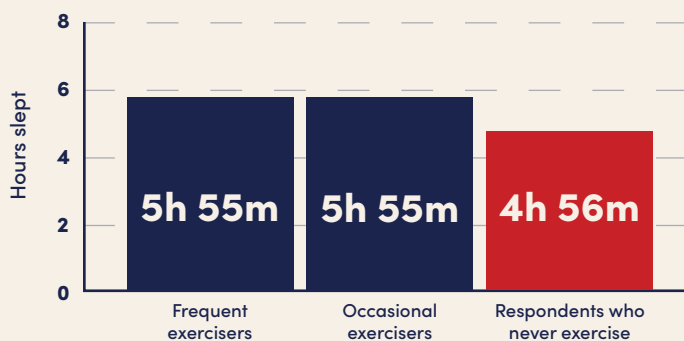


An Additional Measurement of Sleep: Objective Data

A subset of the survey group—271 respondents—used the [SleepScore app](#), which provided objective data about their sleep. The group included 222 frequent exercisers, 44 occasional exercisers and 5 participants who said they never exercised.

These data provided even more dramatic proof that exercising at all—regardless of how often—was associated with longer sleep duration, with all of the exercisers getting far more sleep than the non-exercisers did.

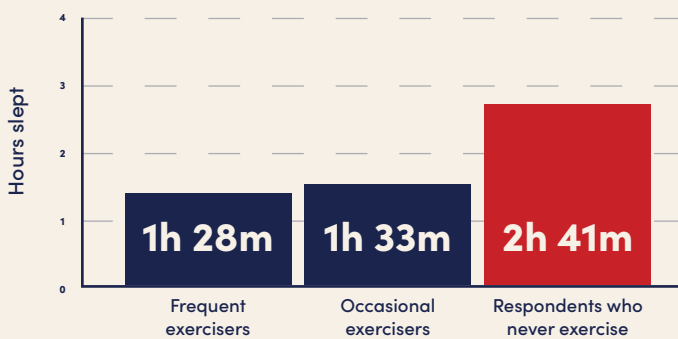
ACTUAL SLEEP DURATION



Also noteworthy: While all of the respondents overestimated how much sleep they got, the mismatch was greatest for those who never exercised.

Furthermore, even though both groups of exercisers (occasional and frequent) got less actual sleep than the amount they said they needed, the disparity was significantly more pronounced for respondents who never exercised.

SLEEP DEBT
(THE DIFFERENCE BETWEEN DESIRED SLEEP AND ACTUAL SLEEP)



“The intriguing discrepancy between athletes’ perceptions of how much sleep they needed and their actual sleep—which is around 70 minutes longer and 12% more efficient than non-athletes—may stem from a combination of physiological and psychological mechanisms,” says Elie Gottlieb, Ph.D., head of applied science for Sleep.ai. “Athletes generally experienced more consolidated sleep, likely leading to greater daytime energy and alertness, which in turn may have fostered a subjective sense of requiring less sleep. Additionally, psychological factors, such as equating shorter sleep needs with competitive toughness, might further contribute to this underestimation of actual sleep requirements.”



A close-up, high-angle photograph of a young woman with dark hair and freckles lying in bed. She is propped up on one arm, looking off to the side with a thoughtful expression. Her hand is behind her head. She is wearing a white t-shirt. The lighting is soft and warm, coming from the side, creating a calm and intimate atmosphere. The background is dark and out of focus.

Additional Measures of Sleep: Consistency

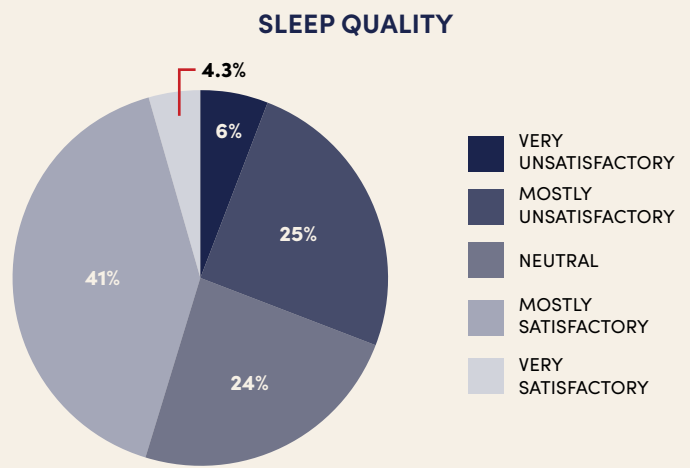
While total sleep duration is key for overall health and wellness, experts note that sleep consistency may actually be even more important. A growing body of [research](#) shows it may be a stronger predictor of health outcomes than sleep duration. In 2023, the National Sleep Foundation issued a [consensus statement](#) on the importance of maintaining a regular schedule for bedtimes and wake times (although it gave the green light for getting up to 1-2 additional hours of catch-up sleep on weekends if needed).

The survey results generally appeared to track with these recommendations. The majority of respondents (62%) said their bedtimes varied just 1-3 times a week, and an even larger majority (72%) said their wake times varied 1-3 times a week.



Additional Measures of Sleep: Quality

When asked to rate their sleep quality, the largest percentage (41%) characterized it as mostly satisfactory, with an additional 4.3% rating it very satisfactory. On the other end of the spectrum, 25% of respondents said their sleep was mostly unsatisfactory, and 6% said it was very unsatisfactory. The remainder (24%) were neutral.



Given that perceived quality of sleep is a subjective measure, respondents were also asked about various aspects typically associated with overall sleep quality, including how often they woke up in the middle of the night and whether they felt refreshed the next morning.

Nearly all respondents said they woke at least once a night, but exercise frequency affected how often this occurred. Respondents who never exercised woke more than 3 times a night on average, occasional exercisers woke about 3 times a night, and frequent exercisers woke a bit less often than that.

"When only about 50% of respondents, athletes included, say they wake up feeling truly refreshed just once to three times a week, it underscores a simple reality: We should be giving our recovery the same respect we give to our workouts," Gottlieb says. "Just as athletes fine-tune nutrition or technique, we can all sharpen the daily and nightly habits that can contribute to our sleep and circadian health: anchoring bed and wake times for a stable circadian rhythm, dimming light and reducing mental load in the last hour before bedtime and following other evidence-based behavioral and environmental recommendations common to sleep hygiene."

A woman with dark, curly hair is sleeping peacefully in a bed. She is wearing a light-colored t-shirt. The room is dimly lit with a cool blue light, creating a calm and restful atmosphere. Her eyes are closed, and her expression is serene. She is lying on her side, with her head resting on a patterned pillow.

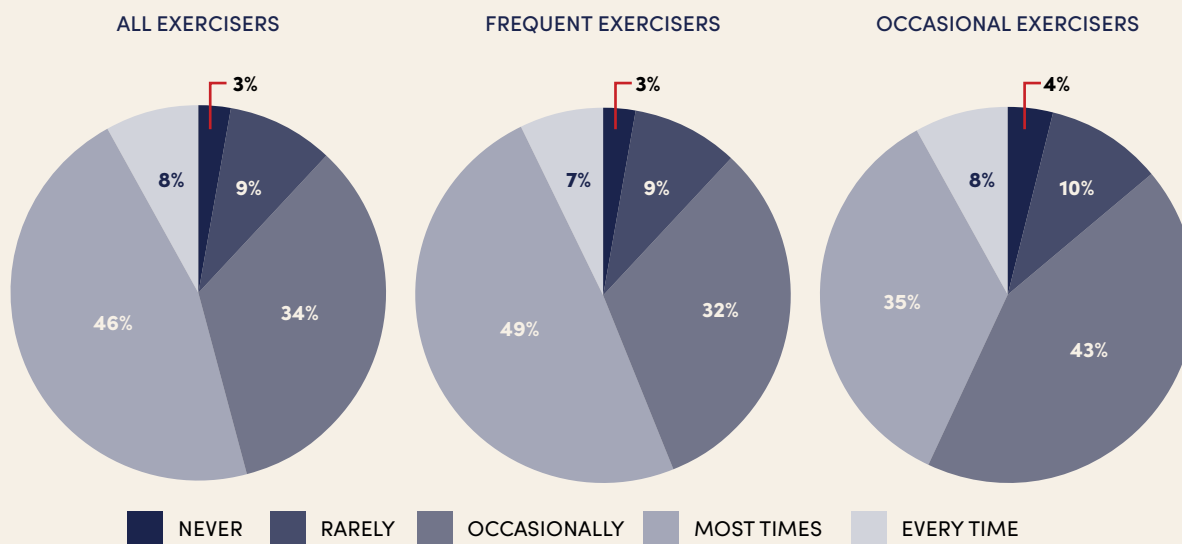
How Does Exercise Affect Sleep?

The responses to the survey echoed the research: Exercising has a positive impact on overall sleep. When asked how exercise affects their sleep that night, more than half of respondents said that they always or almost always sleep better as a result.

Breaking down the responses, the effects were even more pronounced for frequent exercisers compared to occasional ones.

For Dr. Winter, these findings aren't surprising. "I regularly tell clients, 'If you're not happy with the quality of your sleep, exercise more.' My guess is that the more exercise you add, particularly in the morning, the fewer bad nights of sleep you'll have."

ON DAYS WHEN YOU EXERCISE, HOW OFTEN DO YOU FEEL LIKE YOU SLEEP BETTER?
(For example, feeling like you sleep more soundly)



“I always find sleeping is better when I exercise.”

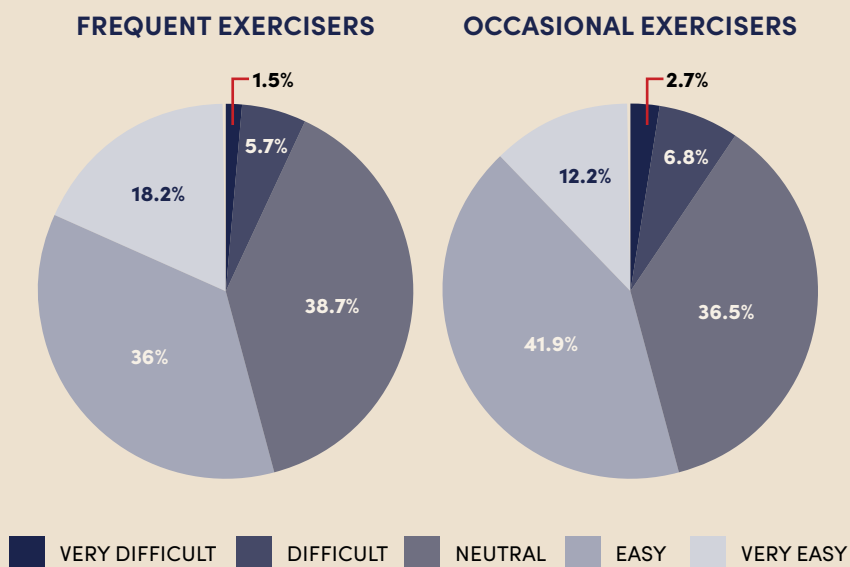
Similarly, frequent exercisers were more likely to report that keeping a consistent schedule, getting 7 hours of sleep and staying asleep were all easier on days when they exercised.

Across the board, however, falling asleep was easier on exercise days: More than half of all respondents who exercised—regardless of how often—said this was the case.

How easy is it to fall asleep on days when you exercise?

Among frequent exercisers, most respondents said falling asleep was “Very Easy” (18.2%) or “Easy” (36.0%), totaling 54.2%.

For occasional exercisers, most respondents said falling asleep was “Very Easy” (12.2%) or “Easy” (41.9%), totaling 54.1%.



“I think exercise prepares my body for a good night’s sleep.”



How Sleep Affects Athletic Performance



The Impact of Sleeping Well

Sleep is widely seen as an important factor in athletic performance, a view that was shared by the vast majority of respondents in the SleepScore Labs survey. When asked how important it was to get an ideal night's sleep (defined as one that was of sufficient duration, was consistent and was high quality), 81% of frequent athletes and 73% of occasional athletes said it was either "very important" or "extremely important."

**“When I’m well rested,
I exercise better.”**



Respondents were asked to rank-order 5 specific aspects of their sleep: getting at least 7 hours of sleep, feeling refreshed upon waking, staying asleep throughout the night, falling asleep quickly and keeping a consistent schedule. Both groups (frequent and occasional exercisers) ranked the 5 aspects similarly.

At the top of the list: “Getting at least 7 hours of sleep,” in keeping with the recommendations that adults should get 7 to 9 hours of nightly sleep for optimal functioning. “Feeling refreshed upon waking” was second, reflecting how much the perception of having slept well can influence performance.

Next on the list were “Staying asleep” and “Falling asleep quickly,” which are two variables that can also affect your perception of how well you slept.

At the bottom of the list for both groups: keeping a consistent sleep schedule.

HOW SPECIFIC ASPECTS OF SLEEP
AFFECT ATHLETIC PERFORMANCE
(Rank-ordered by priority)



“**Good sleep allows me to exercise longer because I feel refreshed.**”

The Impact of Sleeping Poorly

86% of athletes said that sleeping poorly led to a significant or moderate decrease in their athletic performance. The decline was more pronounced for the occasional exercisers: Close to half said they saw a “significant decrease” in their performance (a sentiment shared by only about one-third of the frequent exercisers).

The survey also delved into the specific ways respondents felt that poor sleep affected their workouts.

The mental aspects were at the top of the list, with both frequent and occasional exercisers noting that their overall mood, motivation and their focus were most likely to suffer.

“If I don’t get enough sleep, I don’t feel motivated to exercise.”

It’s not surprising, then, that workouts also felt harder, with the majority of both frequent and occasional exercisers saying that they were quicker to reach the point of exhaustion. In fact, frequent exercisers were even more likely than occasional exercisers to note that both their time to exhaustion and their level of exertion were affected. They were also more likely than the occasional exercisers to find that their strength and cardiovascular performance were affected by poor sleep.

“Regular high-intensity training may push athletes closer to their physiological ceiling,” says Gottlieb, “which means their muscles, heart and autonomic nervous system depend even more on quality sleep for overnight repair. When sleep is short or fragmented, biological recovery programming is short-circuited, so time to exhaustion can shrink, perceived effort skyrockets, and both strength and cardio output can sag.

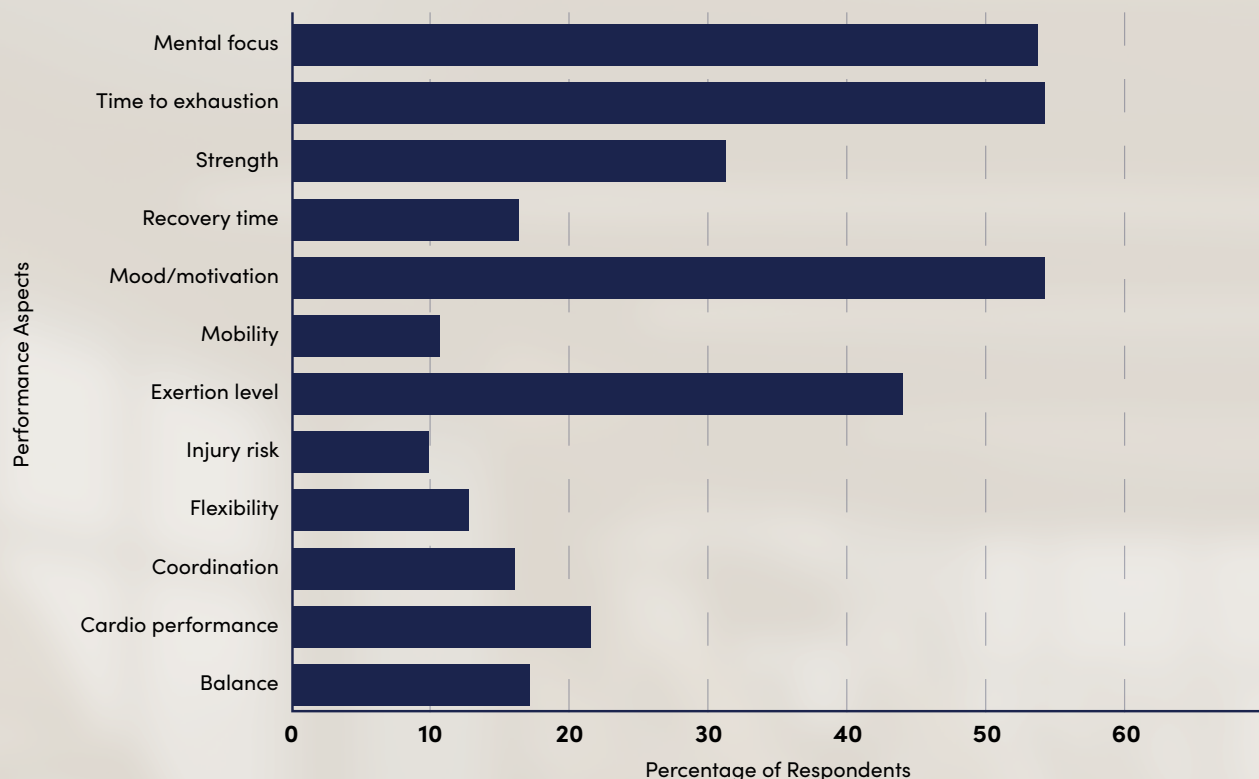
“Frequent exercisers may notice these effects immediately because they’re likely finely tuned to small changes in performance,” Gottlieb explains, “while occasional exercisers may have a less sensitive performance radar. So, the same sleep deficiency may simply sting less or be less obvious.”

All of the athletes—the frequent and the occasional exercisers—said balance, coordination, flexibility and mobility were least likely to be affected by a night of poor sleep. Perhaps as a reflection of this, just 13% of respondents thought poor sleep increased their risk of injury. (It’s possible this was wishful thinking: The research shows that injuries are more likely when you’re sleep-deprived, with factors such as reduced coordination and poorer balance heightening the risk of injury.)

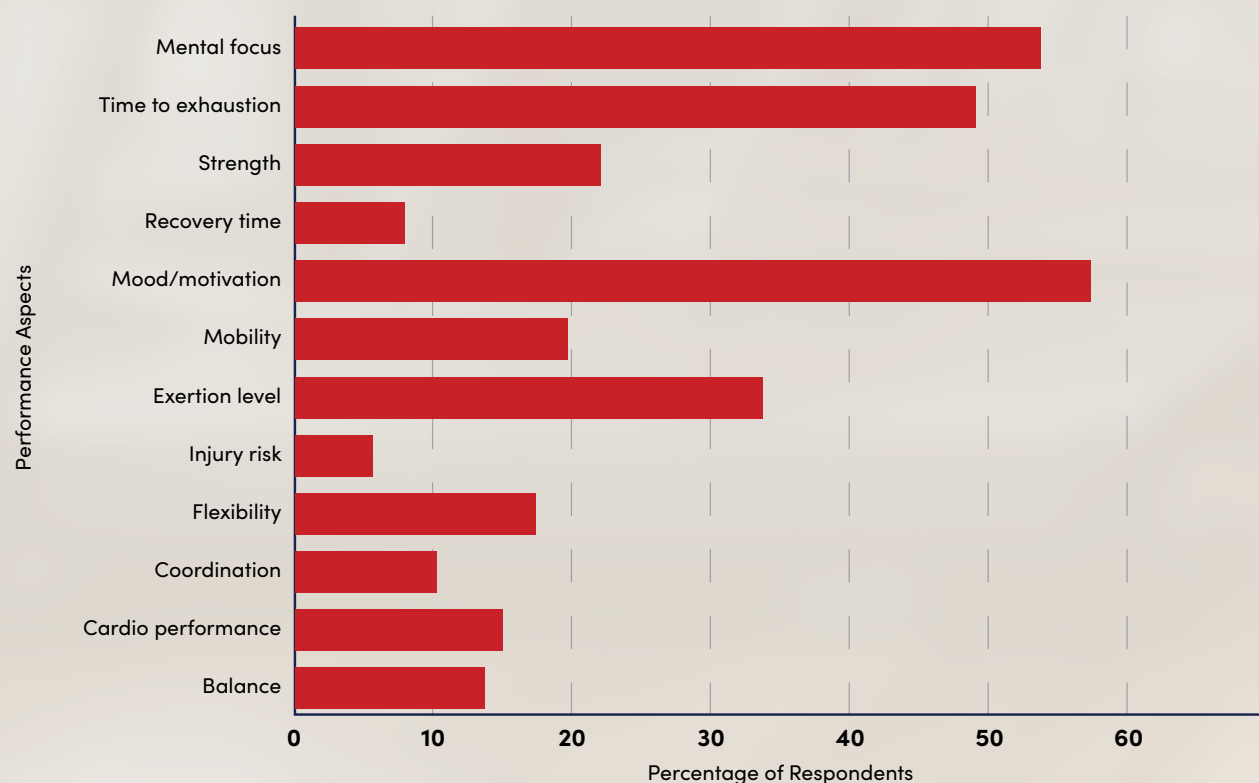
“Lack of sleep makes me feel like I perform poorly during exercise.”



WHAT ASPECT OF YOUR PERFORMANCE IS WORSENERD ON DAYS WHEN YOUR SLEEP WAS SIGNIFICANTLY POORER THAN USUAL? (Frequent Exercisers)



WHAT ASPECT OF YOUR PERFORMANCE IS WORSENERD ON DAYS WHEN YOUR SLEEP WAS SIGNIFICANTLY POORER THAN USUAL? (Occasional Exercisers)





Scaling Down Workouts After a Poor Night's Sleep

As expected, there's a cumulative impact of the decreased motivation and focus, along with workouts feeling harder and more exhausting. When tired, 73% of respondents said they were likely to dial down the intensity of their workouts, and nearly 60% said they would make them shorter.

“I feel good when I've moved around, listless when I haven't.”

While this reluctance is understandable, exercise can often provide a much-needed boost of energy. There's still often a mental hurdle to overcome, however. As one respondent noted, “I have to motivate myself, but exercise makes me feel energized.”

“After a difficult night of sleep, you have a choice,” says Winter, the sports sleep specialist. “I think a lot of people probably surprise themselves and think, ‘Wow, I feel better now that I exercised, even though I didn't sleep that well last night.’”

“There is an inertia for you to want to continue to sleep,” Winter acknowledges. “But the biggest thing is getting out of bed, getting to a place where you're exercising and allowing your circadian rhythm—which wants to start being awake—to do so.”

However, just as having a routine is beneficial when winding down for the night, so is keeping to a regular exercise schedule. “I think for a lot of people, they haven't built their exercise to the point where it's non-negotiable,” he says.

73% of respondents said they were likely to dial down the intensity after a night of poor sleep, while close to 60% said they would opt for shorter workouts.

Male/Female Differences

While 73% of respondents overall said they were likely to reduce their workout intensity after a poor night of sleep, this was even more pronounced for female athletes.

DO YOU EXERCISE LESS INTENSELY AFTER A
POOR NIGHT OF SLEEP?

82% | Yes: Female athletes

A horizontal bar chart with a red segment representing 82% and a grey segment representing the remaining 18%.

72% | Yes: Male athletes

A horizontal bar chart with a red segment representing 72% and a grey segment representing the remaining 28%.

Both groups were equally likely to shorten their workouts after sleeping poorly (about 60%).

These results may be due to the interplay between biological, psychological and behavioral elements, Sleep.ai's Gottlieb notes.

"Gender differences in response to poor sleep may stem from hormonal influences and societal or psychological factors," he says. "Women might be more sensitive to sleep disturbances due to hormonal fluctuations, which can affect their energy levels and recovery, making them more likely to reduce workout intensity. In contrast, men may adopt a more persistent approach, driven by a 'push through it' mentality and possibly less concern for the immediate effects of poor sleep on physical exertion."

Age-Related Differences

Compared to their younger counterparts, athletes in the 60+ group were less likely to let a night of poor sleep affect a workout (either by cutting it short or reducing their exercise intensity).

As with the male-female differences that were observed, these differences are likely due to a combination of physiological, psychological and behavioral factors.

DO YOU SHORTEN YOUR WORKOUT AFTER A POOR NIGHT OF SLEEP?

43% | Yes: Athletes ages 60+

66% | Yes: Athletes ages 30-59

74% | Yes: Athletes ages 20-29

DO YOU EXERCISE LESS INTENSELY AFTER A POOR NIGHT OF SLEEP?

67% | Yes: Athletes ages 60+

82% | Yes: Athletes ages 30-59

76% | Yes: Athletes ages 20-29

“Older athletes, having had more time to adapt, may perceive sleep as slightly less crucial to their performance and may have developed compensatory strategies and greater perceived resilience over time,” says Gottlieb. “Their reduced sensitivity to poor sleep could be due to both physiological changes such as a less pronounced circadian rhythm, as well as a psychological adaptation where experience and technique play a more significant role in maintaining performance. Additionally, their long-established habits and disciplined approach to training may contribute to their lower likelihood of reducing their workout intensity even when they’re sleep-deprived.”

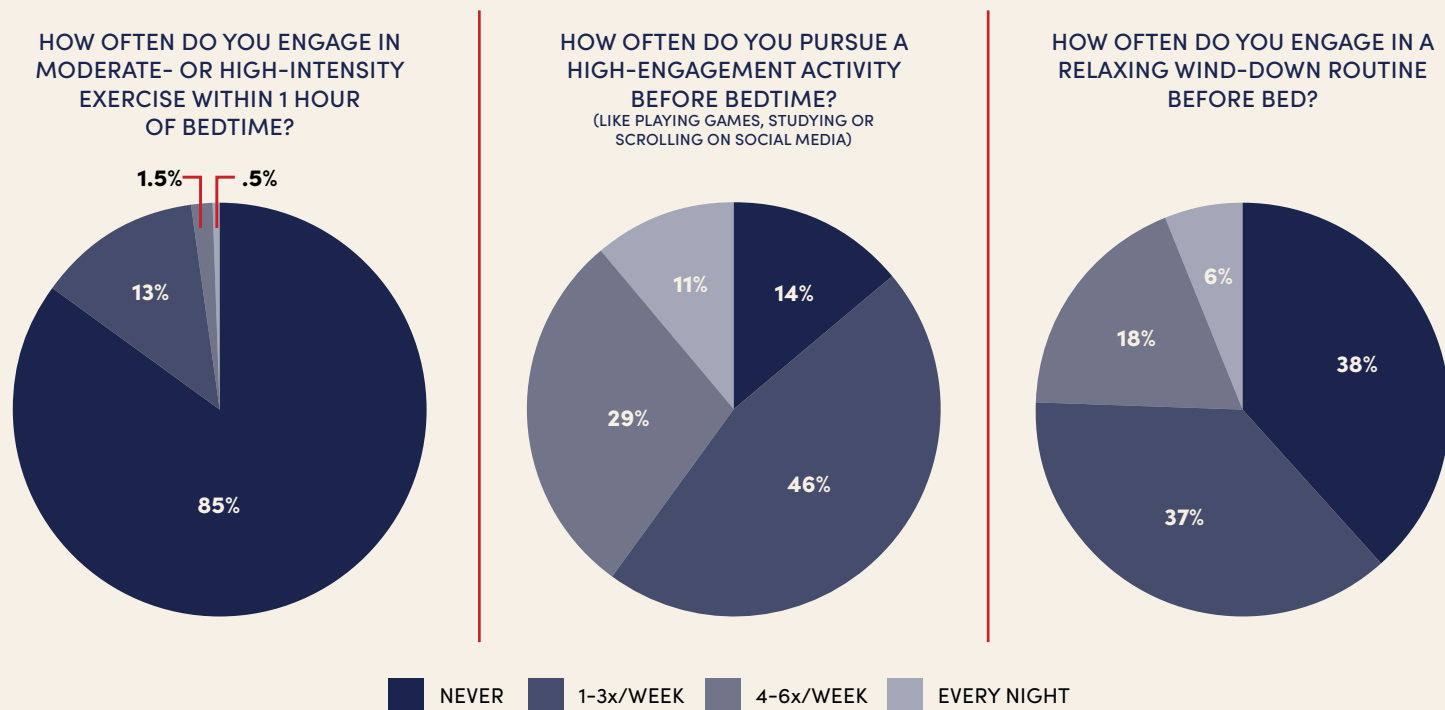


Best Practices for Sleep

The survey included a number of questions to assess best practices for sleep, including activities leading up to bedtime and the physical sleep environment.

On a positive note, the vast majority of respondents (85%) said they never did moderate- or high-intensity exercise within an hour of bedtime. However, many respondents frequently pursued other high-engagement activities prior to bedtime, such as playing games, studying or scrolling on social media. For 11%, this happened nightly, and for 75%, this was the case anywhere from 1 to 6 nights a week.

Perhaps the biggest area for improvement: engaging in a wind-down routine, which just 6% of respondents did every night.



"Sleep isn't a light switch—it's more like landing a plane, requiring sufficient sleep pressure built throughout the day, proper circadian timing and an environment and mindset primed for rest," says Gottlieb. "A consistent wind-down routine signals to your brain that it's time to begin this descent, which is why minimizing high-intensity exercise and cognitively or emotionally stimulating activities in the hour before bed matter. Find whatever genuinely puts you in a calm, subdued, feel-good state (reading, light stretching, a warm shower, even a relaxing TV show) and make it your nightly ritual."

Sleep Hygiene Suggestions

The best setup for sleep is a room that's cool, dark and quiet:

- Although personal preference may vary, the ideal temperature is generally between 60 and 67 degrees Fahrenheit, according to SleepScore Labs. Feeling too hot or too cold may make it more difficult to drift off and may also prompt nighttime awakenings.
- Light that seeps in can also interfere with sleep due to its role in cueing alertness.
- A room that's quiet is most conducive to sleep. Taking steps to minimize noise helps ensure that sudden sounds don't cause disturbances when drifting off or in the middle of the night.

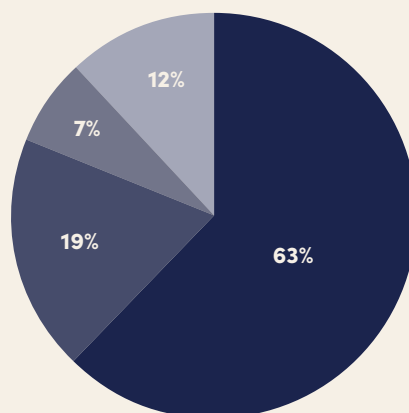
Finally, minimize physical activity (like workouts) or emotionally or cognitively stimulating activities (such as work or scrolling through social media) prior to bedtime. Instead, this time can be used to wind down with relaxing activities such as reading or meditation.

Respondents were also asked about their physical sleeping environment and general comfort, revealing some additional opportunities for improvement.

Most respondents (about 63%) also said they usually found their bed comfortable. However, nearly 12% said their bed was physically uncomfortable every single night, with 26% saying this was the case at least one night and up to several nights per week.

Additionally, 37% of respondents said their bed, pillows or blankets felt uncomfortable at least one night a week.

HOW OFTEN DO YOU SLEEP ON AN UNCOMFORTABLE BED OR MATTRESS, OR WITH UNCOMFORTABLE PILLOWS OR BLANKETS?



NEVER 1-3x/WEEK 4-6x/WEEK EVERY NIGHT



The Benefits of a Personalized Sleep System

In conjunction with the survey, a smaller group of eight athletes tracked their sleep for two weeks while sleeping on their old beds, which included mattresses ranging in age from one to five years old, then tracked their sleep for an additional two weeks on a sleep system matched to their specific needs by a Sleep Expert® at Mattress Firm.

Who they were:

Participants included two professional athletes, two retired professional athletes, two recreational athletes and two “weekend warriors.” They ranged in age from 29 to 48. Of the eight participants, seven were female.

Methodology

Each participant visited a Mattress Firm store, where they completed a [MattressMatcher®](#) quiz and also worked with an in-store Sleep Expert who factored in their sleep disruptors, sleep position, body frame and preferences to help them select a new, personalized sleep system (including a mattress, adjustable base and pillow). Each new sleep system included a

[Sealy Ease Adjustable Base](#), [TEMPUR-Ergo® 3.0 Adjustable Base](#) or [TEMPUR-Ergo® ProSmart® Adjustable Base](#). Features varied by model but included aspects such as lumbar support, the ability to raise and lower the head and/or foot of the bed, anti-snore technology, cooling features and massage vibration.

Participants completed daily questionnaires about their sleep during an initial two-week period using their old sleep system (their existing pillow, mattress and bed) and then again for two weeks using their new system. At the conclusion of both phases, they also completed longer questionnaires.

In addition, all participants used [SleepScore Max](#), a device placed on their nightstands that measured a wide range of parameters about their sleep, including how long they spent in the different stages of sleep and how long they were awake in the middle of the night.

Participants did not receive payment but were allowed to keep the new sleep systems at the conclusion of the study, free of charge.

Based on the data collected during both phases of the study, SleepScore Labs provided in-depth comparisons of participants’ sleep.



“Published studies have demonstrated the accuracy of SleepScore Max measurements relative to the gold standard, polysomnography,” says Sharon Danoff-Burg, Ph.D., senior principal research scientist at SleepScore Labs. “The studies show that SleepScore Max often outperforms research-grade actigraphy and other consumer sleep technologies.”

How Did the New Matched Sleep Systems Affect Participants’ Objective Sleep?

The data gathered by the SleepScore Max devices showed that several important aspects of participants’ objectively measured sleep improved during the two weeks they used their new sleep systems compared to their old ones.

The most striking improvements: Their sleep efficiency improved, meaning that more of their time in bed was spent asleep (increasing from an average of 83% to 86%). They were awake for less time in the middle of the night (an average of 32 minutes, compared to 49 minutes when using their previous sleep systems).

Notably, participants spent a greater proportion of the night in deep sleep (increasing from an average of 17% to 21%) (Stage 3 sleep). Deep sleep typically accounts for about 20% of sleep, but the percentage gradually decreases as you age and is offset by increases in other stages, including light sleep (Stage 2 sleep). However, deep sleep remains essential for athletes, given that growth hormone—crucial for recovery from workouts and from injuries—[is primarily released](#) during this stage.

“Deep sleep is essential for human health,” says Danoff-Burg, “as its functions include clearing toxins from the brain, supporting immune system function, maintaining a healthy metabolism, releasing growth hormones and repairing tissue damage.”

	New matched sleep system	Original sleep system
Sleep efficiency (percentage of time in bed spent asleep)	86%	83%
Wake after sleep onset (time spent awake at night after initially falling asleep)	32 minutes	49 minutes
Proportion of the night spent in deep sleep	21%	17%

“Given the very small sample size, results must be interpreted with caution rather than considered conclusive,” Danoff-Burg notes. “Nonetheless, the findings of this study paint a picture that aids our understanding of the importance of personalizing a sleep system to promote optimal sleep and improve daytime performance.”

How Did the New Matched Sleep Systems Affect Participants' Views About Their Sleep?

Overwhelmingly, respondents found their new systems more comfortable and felt better rested as a result.

	New matched sleep system	Original sleep system
Was it comfortable?	Yes: 88%	Yes: 38%
Was it supportive?	Yes: 100%	Yes: 38%
Did it relieve pressure?	Yes: 88%	Yes: 25%
Did it feel cool?	Yes: 100%	Yes: 25%
Did you wake up feeling well-rested?	Yes: 88%	Yes: 25%
Did you feel satisfied with your sleep?	Yes: 88%	Yes: 38%

Using their new sleep systems, participants also reported having fewer poor nights of sleep per week and more mornings of feeling well-rested upon waking.



“How we feel about last night’s sleep can make a big difference in our daytime mood and performance,” says Danoff-Burg. “These perceptions regarding sleep quality are meaningful and play a role in our well-being.”

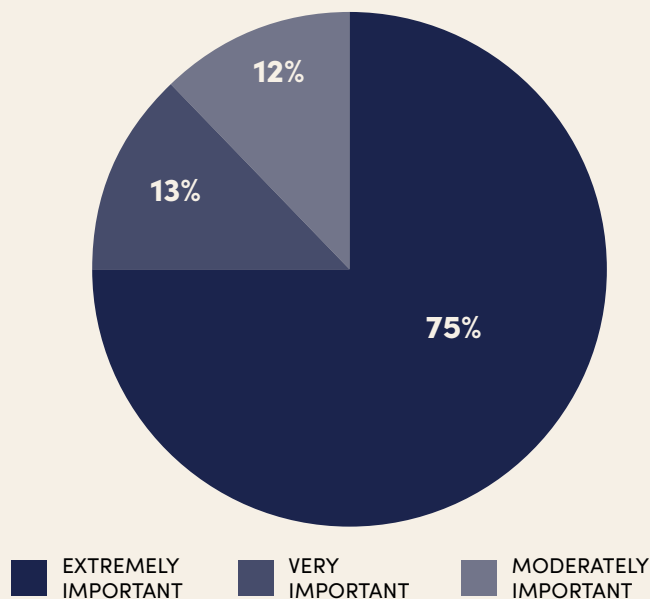
Their Athletic Performance

As high-level athletes, participants were attuned to how their sleep affects their performance.

When asked how poor sleep affects their performance the next day, one respondent wrote: “My strength is weakened, and I’m unable to lift weights that are as heavy as I normally would. My stamina is affected during running, and I have to stop more often to catch my breath. And overall, it takes me a lot longer to finish my workouts.”

Given the role of sleep in athletic performance, it’s not surprising that respondents placed a high priority on having a quality overall sleep system in place. All respondents deemed it important, with three-fourths calling it “extremely important.”

HOW IMPORTANT IS YOUR BEDDING/MATTRESS TO YOUR PERFORMANCE AND RECOVERY?



“I performed better, made more progress and made some PRs [personal records].”

The positive marks respondents gave to their new sleep systems were also reflected in their views on their athletic performance. As one respondent said, “I was more energized and ready to tackle my workouts,” and another wrote that they “performed better, made more progress and made some PRs [personal records].”



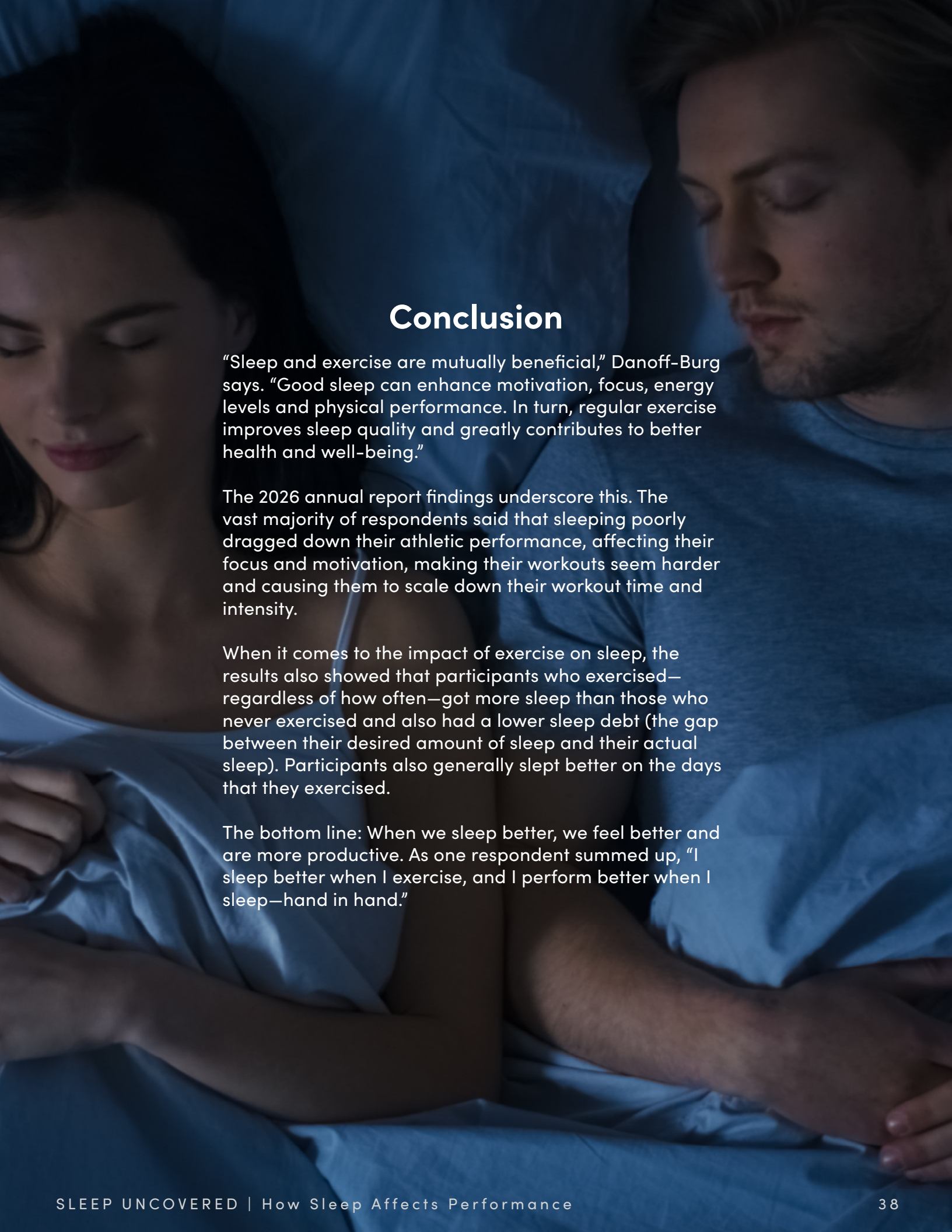


Which Features Did Participants Appreciate the Most?

Respondents liked a number of aspects of their new sleep systems, including:

- Vibration
- Lumbar adjustments
- Adjustable setting for head of bed
- Adjustable setting for foot of bed
- Cooling feature

At the conclusion of the study, seven of the eight participants said they'd be "extremely likely" to continue using the new matched sleep system. As one participant wrote, "I am now more well-rested throughout the day, less sleepy, happier and more energetic."

A photograph of a man and a woman sleeping peacefully in a bed. They are covered with a light blue blanket, and their faces are softly lit, suggesting a calm and restful environment. The woman is on the left, and the man is on the right.

Conclusion

“Sleep and exercise are mutually beneficial,” Danoff-Burg says. “Good sleep can enhance motivation, focus, energy levels and physical performance. In turn, regular exercise improves sleep quality and greatly contributes to better health and well-being.”

The 2026 annual report findings underscore this. The vast majority of respondents said that sleeping poorly dragged down their athletic performance, affecting their focus and motivation, making their workouts seem harder and causing them to scale down their workout time and intensity.

When it comes to the impact of exercise on sleep, the results also showed that participants who exercised—regardless of how often—got more sleep than those who never exercised and also had a lower sleep debt (the gap between their desired amount of sleep and their actual sleep). Participants also generally slept better on the days that they exercised.

The bottom line: When we sleep better, we feel better and are more productive. As one respondent summed up, “I sleep better when I exercise, and I perform better when I sleep—hand in hand.”

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And to our customers, thank you for turning to us for guidance.

We'd like to dedicate this to our Sleep Experts®, who show up every day with an unmatched commitment to making better sleep easy.

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