



NYX-SYS

sleep in performance

Our service and
experience





What is Nyx-Sys?

Nyx-Sys is a technological innovation company that was born out of an understanding of the importance of "good sleep" and the direct consequences of sleep quality on physical and mental recovery.

By integrating the measurement and monitoring of sleep as well as the recovery of athletes and sports teams, Nyx-Sys becomes the third pillar in the Nutrition-Training-Rest triad, promoting health and performance.

At Nyx-Sys we want to be part of every person's dream, establishing new paradigms of training and quality of life, based on sleep as a fundamental pillar of physical and mental balance.

From 2024, our service will also be offered in 5-star hotels and residences for the care and monitoring of the elderly.

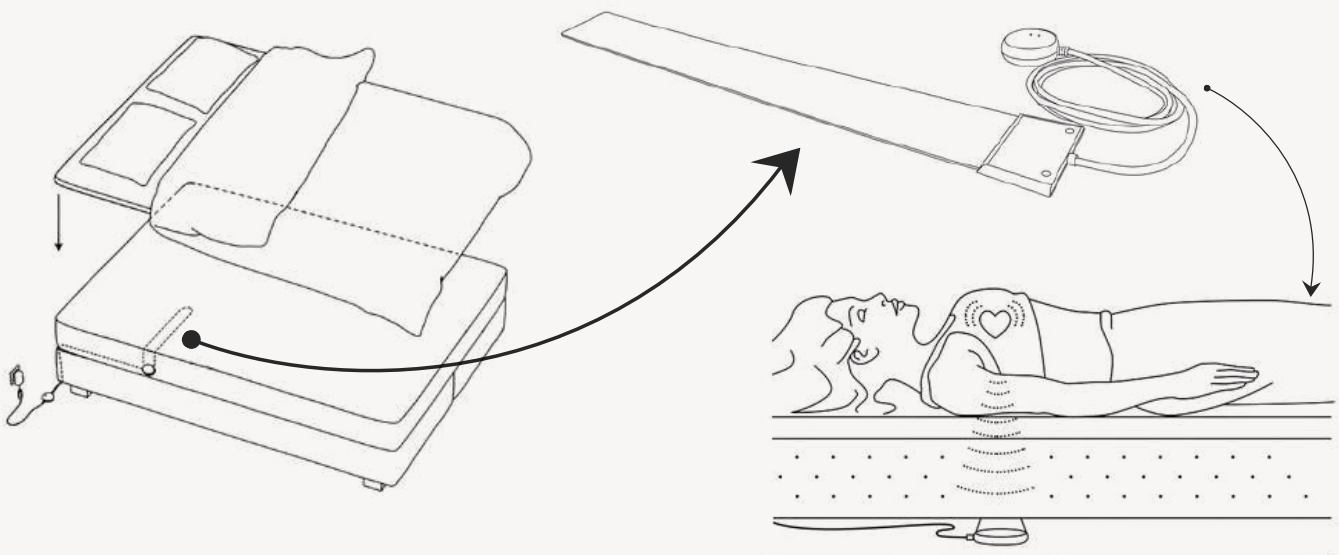


What do we do?

At Nyx-Sys, we want people not only to sleep, but also to rest.

That's why we measure and analyse sleep using ballistocardiography, recording the body movements caused by the mechanical force of the heart.

And we do this through a non-invasive sensor, i.e. **people do not have to wear or use any device**, or even notice its presence, as it is located under the mattress.





What information do we provide

On a daily basis the user gets a complete report with physiological metrics on the quality of their sleep and the recovery of their body and mind.

Each data is displayed along with a detailed explanation and tools to give even more value to the information provided.

We provide a comprehensive and immersive experience for the user to learn all about their sleep and how to improve the quality of their sleep.

Nyx-Sys offers a score based on hours of sleep and delivers accurate metrics with an analysis and breakdown of sleep architecture, recovery points, heart rate variability, autonomic nervous system balance, and cardiac and respiratory rhythms throughout the night. Together, they form a valuable and comprehensive sleep profile, allowing users to understand how their body recovers each night and prepares to face a new day.

Interactive platform

Easy to use

At Nyx-Sys we provide more than just data, that's why we created an interactive platform where you can understand more about your sleep and learn how to improve it.





Daily and weekly reports

PDF

Jonathan Abela
35 years old
Presence period: 28/11/2023 - 21:57:22 - 29/11/2023 - 06:12:47



Daily report

Sleep score



You have obtained an optimal sleep score. Keep that way following our sleep advices to become a sleep master.

Sleep Score is based on your sleep hours and the amount of REM and DEEP sleep you had.

Most adults need between 7 and 8 hours of sleep each night. During sleep, multiple biological and hormonal processes enable good health and allow the body to function optimally.

Sleep architecture

Each sleep cycle lasts between 90 and 110 minutes and are an essential part of a healthy sleep pattern. Breakdown of sleep in to three stages: Light, REM and Deep sleep: All three stages have different physiological characteristics, and their meaning to your body is different.

LIGHT sleep is the transitional state from awake state to DEEP sleep. Eyes are not moving, and muscle tone is decreased. LIGHT should constitute 50-60 % of your total sleep.

DEEP sleep physical movement and muscle tone is almost non-existent. Is essential for physical recovery and most physiological systems. This stage should constitute 10-20 % of your total sleep.

REM sleep is the dreaming phase, characterized by rapid eye movements, paralyzed muscles, and variable blood pressure and heart rate. REM sleep is needed for mental recovery. This stage should constitute 20-25 % of your total sleep.

In bed	08:18:09hs	Light	04:24:00hs (40%)	Awake	01:36:30hs (13%)
In sleep	07:52:30hs	Deep	01:52:00hs (27%)	Absent	00:25:39hs (6%)
		REM	01:36:30hs (14%)		



Autonomic Nervous System balance

The ANS is responsible for regulating many of the body's involuntary functions, such as heart rate, blood pressure, and digestion. Is divided into:

Sympathetic: This system activates body processes that help you in times of need, especially times of stress or danger.

Parasympathetic: This part does the opposite, is responsible for the "rest-and-digest" body processes.

Parasympathetic 48%
Sympathetic 52%

The balance should stay near the 50-50 +/- 10. Deviations beyond 25-75 or 75-25 line may indicate insufficient recovery, high or chronic stress, general fatigue.

Your ANS has a predominance of the parasympathetic system, it means that your body has recovered during sleep.

Heart Rate Variability (HRV)

HRV is the variation of time between one heartbeat and another. Used as an indicator of your general health and fitness, allows you to determine your psychophysiological state.

Generally, higher values indicate better health, fitness, etc. In short term indicates the readiness for the day, and in long term, for example along with training, HRV values tend to climb up. Long term decrease in RMSSD may be indication of approaching over training condition.

Evening 35.1 RMSSD
Morning 33.8 RMSSD



Recovery

It represents the adaptation and physical recovery during rest with respect to the daily routine, and is obtained by the difference between the HRV (Heart Rate Variability) values from the morning and the night before.

It is very important to take into account the activities that generate physical and/or mental stress carried out the day before, such as physical exercise, work hours, etc. Recovery levels will reflect how your body recovered during sleep from your physical wear of previous day.

Recuperación total +2.4

Your body had a great recovery, is ready for a day of training and activity!

Heart rate

A normal resting heart rate for adults ranges from 60 to 100 beats per minute. Generally, a lower heart rate at rest implies more efficient heart function and better cardiovascular fitness.

Resting BPM 47
Avg. BPM 56.3
Avg. Max BPM 122



Breathing rate

The typical respiratory rate for a healthy adult at rest is 12-20 breaths per minute.

Resting BPM 7
Avg. BPM 16.8
Avg. Max BPM 22



Movement

Avg. activity indicates movements such as twitching leg or arm or changing position only slightly. Bigger movements of your body are indicated by number of Turns. Higher values might indicate restless night.

Toss and turns 37
Avg. activity 71.7



Improving your sleep quality

We bring you some habits to enhance your sleep.

Go to bed and wake up at the same time every day will help your body to understand when it's time to sleep; also avoid drinks with caffeine or alcohol and eating heavy meals at least 2 hours before sleep time.

Reading or taking a warm bath are good habits to avoid worrying or became anxious, as well as stop using electronic devices near the time you want to sleep. Ideally, the room should be quiet, dark, and at a temperature that you are comfortable with.

Nyx-Sys team wishes you a good night!



Nyx-Sys takes your sleep further in 2024

HOTELS



Sleep monitoring service in luxury hotels with wellness and spa centres





Nyx-Sys takes your sleep further in 2024



Residences for the elderly

**To improve the sleep of the elderly and improve their
quality of life.**





Summary and strengths

- **Fast growing company with a unique product on the market.**
- **Innovative technology.**
- **Major national and international collaborations already underway.**
- **Team of professionals.**
- **Important commercial agreements in development for the coming years.**
- **Certified data delivery.**





Our dream team

Our HQ is located in the Gozo Innovation Hub in Malta, the heart of the Mediterranean Sea.



DAVIDE CASTELLO

FOUNDER & CEO



FERNANDO LERNER

CHIEF TECHNOLOGY
OFFICER



SEBASTIÁN RUIZ

CHIEF OF SOFTWARE
DEVELOPMENT



ALBERTO LUNGHERINI

S&C COACH
FIFA FITNESS COACH
EXPERT IN INJURY RECOVERY



FRANCESCO FIORE

ATHLETIC TRAINER & EXPERT
IN SLEEP SCIENCE



EMANUELE PALO

SALES EXECUTIVE



DAVIDE CONTRINO

LOGISTICS MANAGER

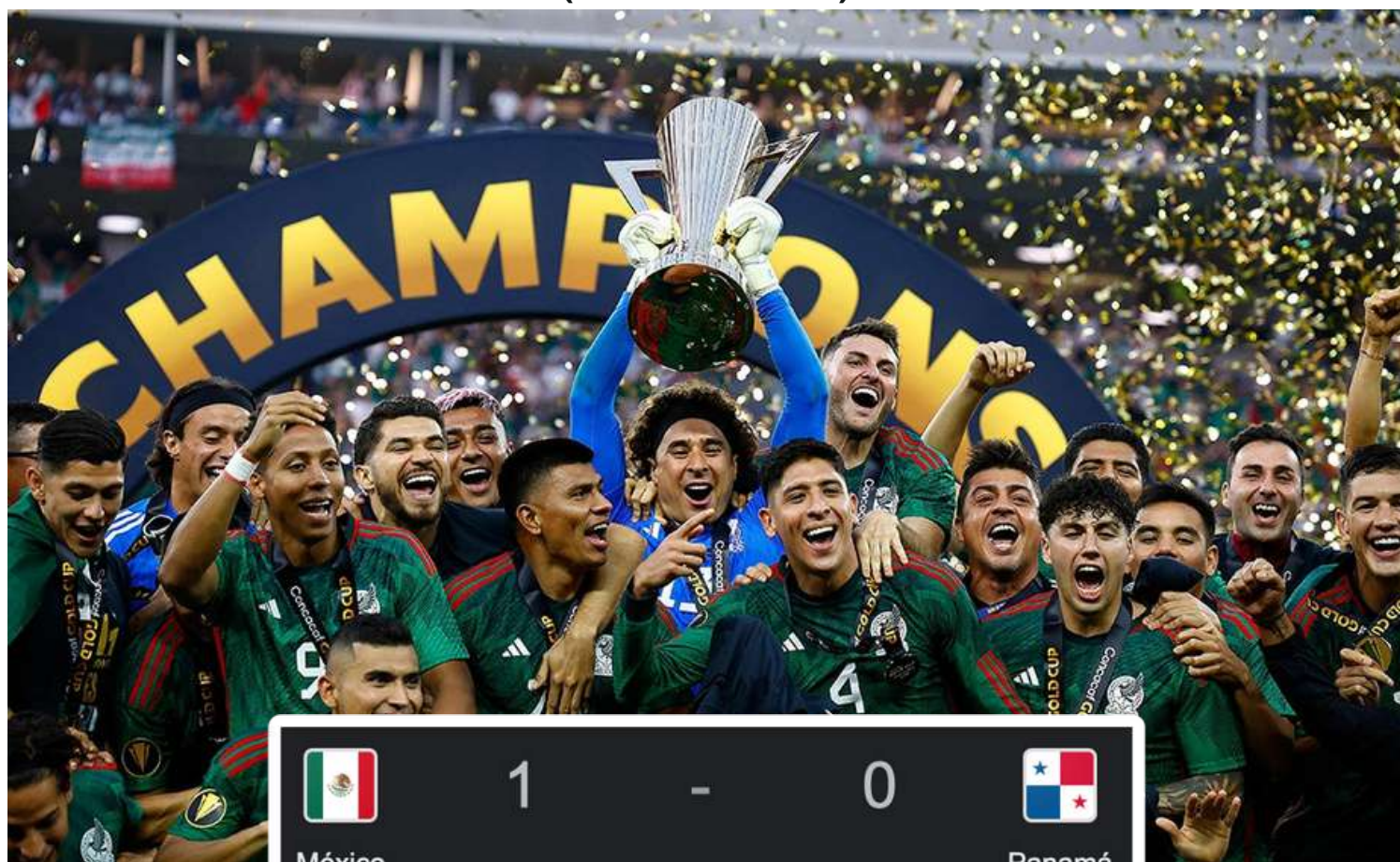


Historical

2023



MEXICAN FOOTBALL FEDERATION
GOLD CUP CHAMPIONS
(JUNE-JULY '23)



	1	-	0	
México				Panamá
Final				



Historical

2023



ITALY NATIONAL TEAM

WOMEN'S VOLLEYBALL - LEAGUE OF NATIONS

(JUNE - JULY '23)



Historical

2023



UEFA
UNDER-19
CHAMPIONSHIP

ITALY NATIONAL TEAM
UEFA EUROPEAN UNDER-19 CHAMPIONSHIP
(MALTA - MAY-JUNE '23)



Historical

2022



FIFA WORLD CUP
Qatar2022

MEXICAN FOOTBALL FEDERATION
QATAR WORLD CUP FOOTBALL QUALIFIER
(DOHA - JUNE '22)



Historical

2022



FIFA WORLD CUP
Qatar 2022

MEXICAN FOOTBALL FEDERATION

PRE-WORLD CUP RETREAT **(GIRONA - NOVEMBER '22)**



Historical

2022



ITALY NATIONAL TEAM

WOMEN'S VOLLEYBALL - VOLLEYBALL WORLD
CUP (HOLLAND - JUNE-JULY '23)



Historical 2022



**FIFA WORLD CUP
Qatar 2022**

MEXICAN FOOTBALL FEDERATION

**QATAR WORLD CUP 2022
(QATAR - NOVEMBER - DECEMBER '22)**



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