



SNORING & OSAHS SURGERY

International Workshop



SLEEP STUDIES MADE EASY

<15 min

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Sleep Studies



Basic remarks

- ✦ No clinical diagnosis is possible
- ✦ Instrumental Sleep Study is mandatory
- ✦ Surgery is not possible without preliminary sleep study
- ✦ Surgery selection requires Sleep Study
- ✦ Outcome Evaluation requires Sleep Study

The Golden Standard: POLYSOMNOGRAPHY

Polysomnography or **PSG** is a multi-parametric test used in the study of sleep and as a diagnostic tool in sleep medicine. The test result is called a polysomnogram, also abbreviated PSG. The name is derived from Greek and Latin roots: the Greek 'poly' for multi-channel (many), the Latin 'somnus' (sleep), and the Greek 'graphein' (to write).

A Manual of Standardized Terminology, Techniques, and Scoring System for Sleep Stages of Human Subjects, edited by Allan Rechtschaffen and Anthony Kales, was adopted in 1968.

POLYSOMNOGRAPHY

Polysomnography is a comprehensive recording of the biophysiological changes that occur during sleep. The PSG monitors many body functions including brain (EEG), eye movements (EOG), muscle activity or skeletal muscle activation (EMG) and heart rhythm (ECG) during sleep. After the identification of the sleep disorder sleep apnea in the 1970s, the breathing functions respiratory airflow and respiratory effort indicators were added along with peripheral pulse oximetry.

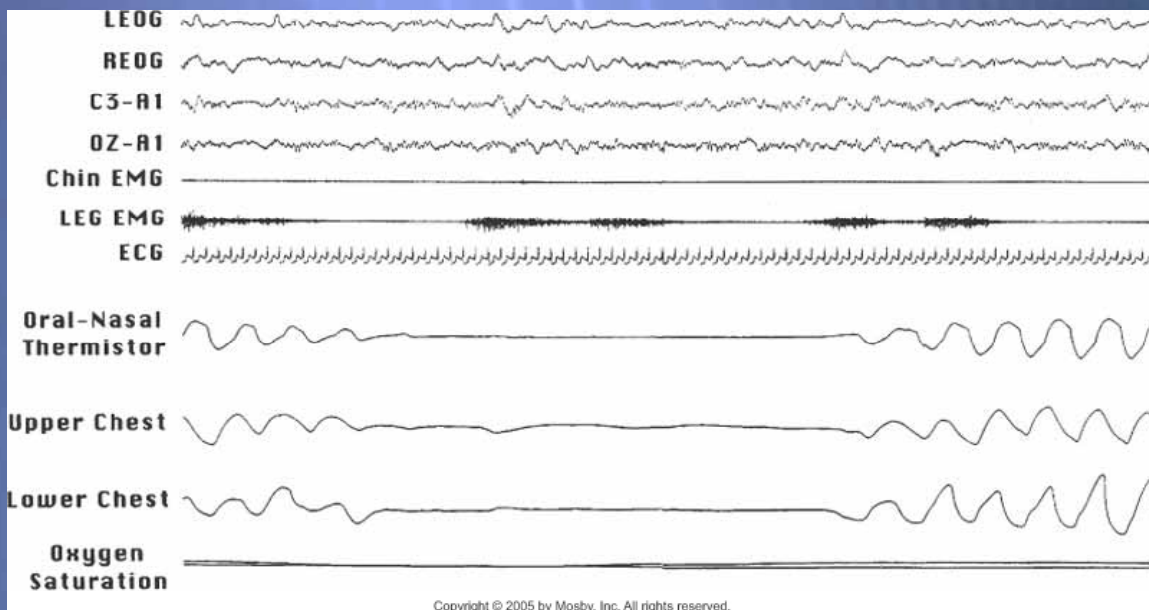
POLYSOMNOGRAPHY

Polysomnography is used to diagnose, or rule out, many types of sleep disorders including narcolepsy, restless legs syndrome, REM behavior disorder, parasomnias, and sleep apnea. It is often ordered for patients with complaints of daytime fatigue or sleepiness that may be caused by interrupted sleep.

Sleep Study in Progress



Polysomnography



Terminology of Sleep Testing for OSA

✦ **Type I monitoring**

- ✦ Full **in-laboratory** polysomnography

✦ **Type II monitoring**

- ✦ Comprehensive **portable** polysomnography, minimum of 7 channels, including **electroencephalogram**, electrooculogram, chin electromyogram, electrocardiogram or heart rate, airflow, respiratory effort, and oxygen saturation

✦ **Type III monitoring**

- ✦ Modified **portable** sleep apnea testing, minimum of 4 channels monitored, including ventilation or airflow (at least 2 channels of respiratory movement, or respiratory movement and airflow), heart rate or electrocardiogram, and oxygen saturation

✦ **Type IV monitoring (REMAINS UNDEFINED)**

- ✦ Less than 4 channels monitored.

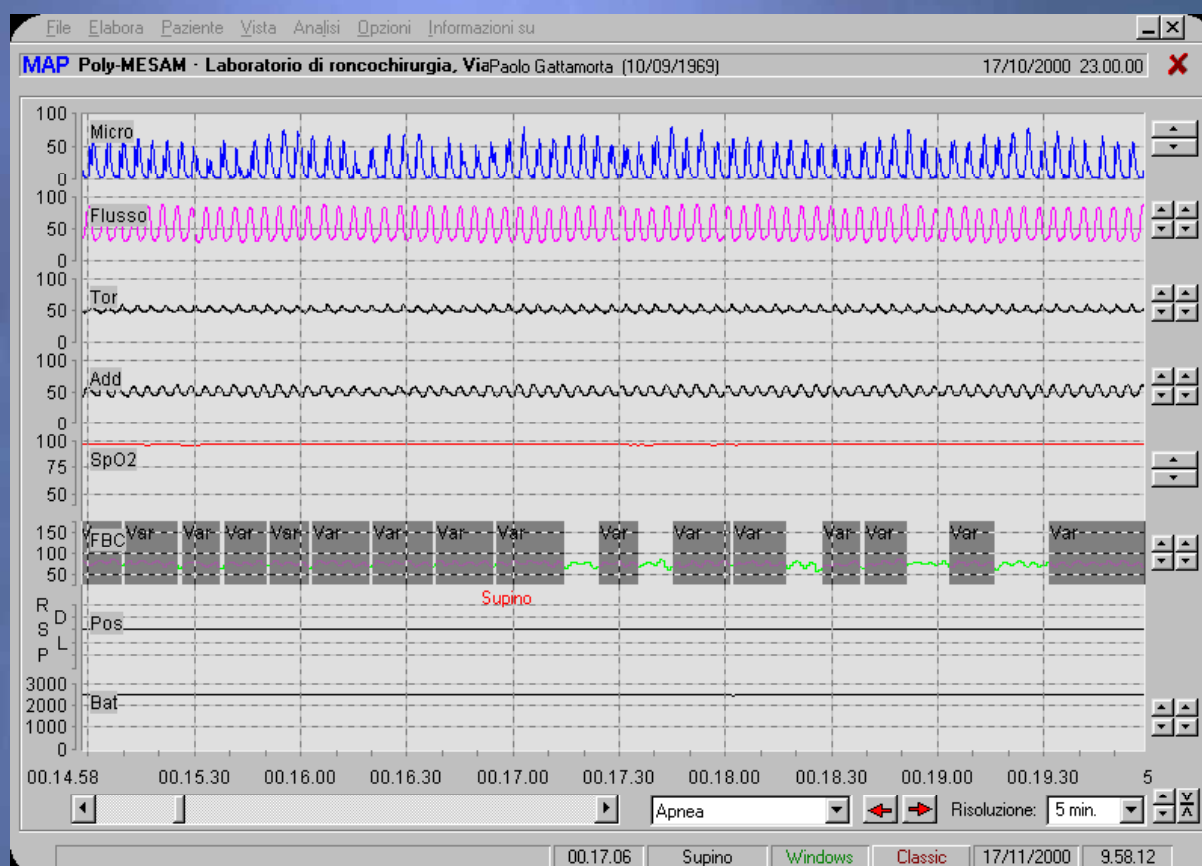
Few key suggestions:

- ✦ Organise a **strict cooperation** with a Sleep Lab if possible (outsourcing)
- ✦ A **basic training** in sleep studies technology is recommended (for minimal interpretation)
- ✦ If an external Sleep Lab is not available in your area organise in your Clinic a Sleep Studies Activity based on **Type III monitoring** devices (sufficient for more than 85% of your cases)

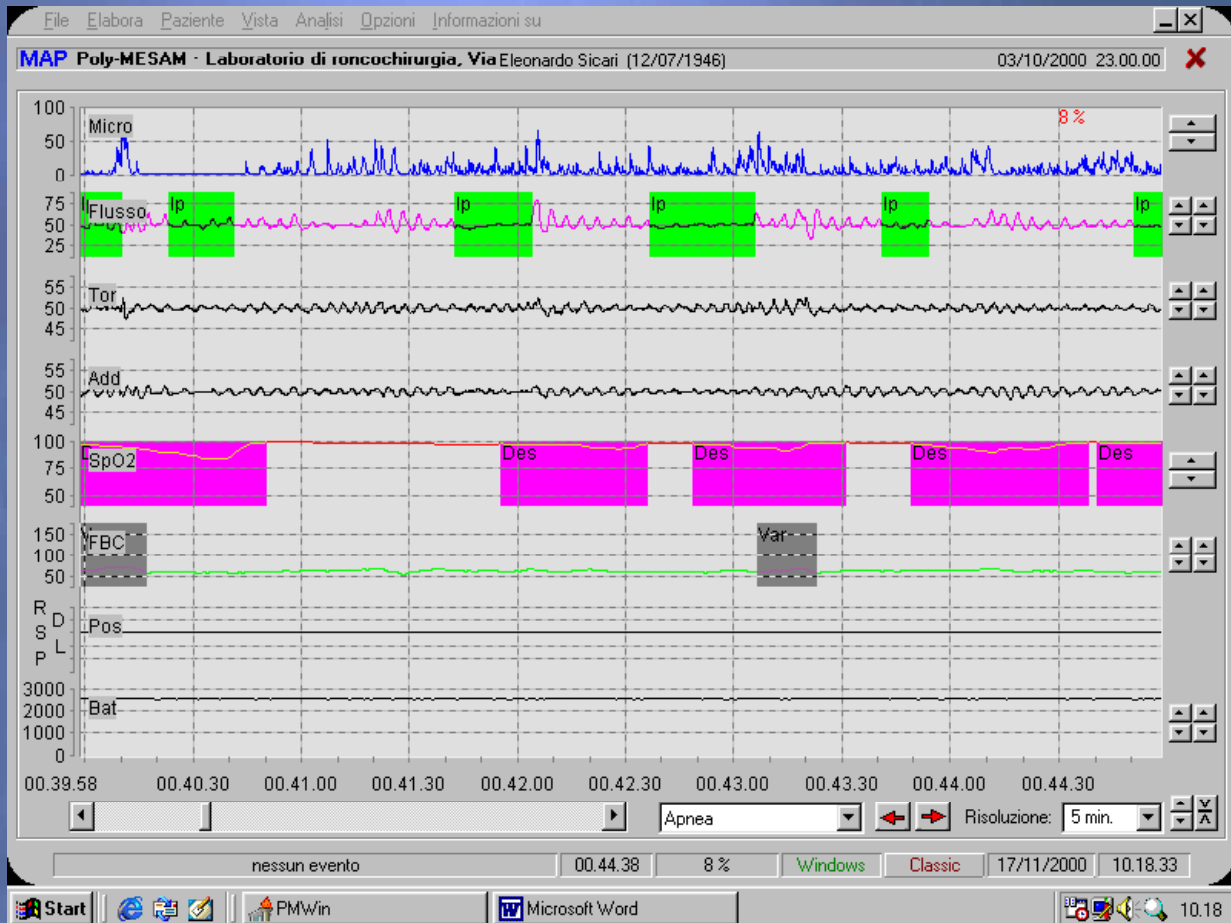
- POLY-MESAM 8 channels
- ITAMAR



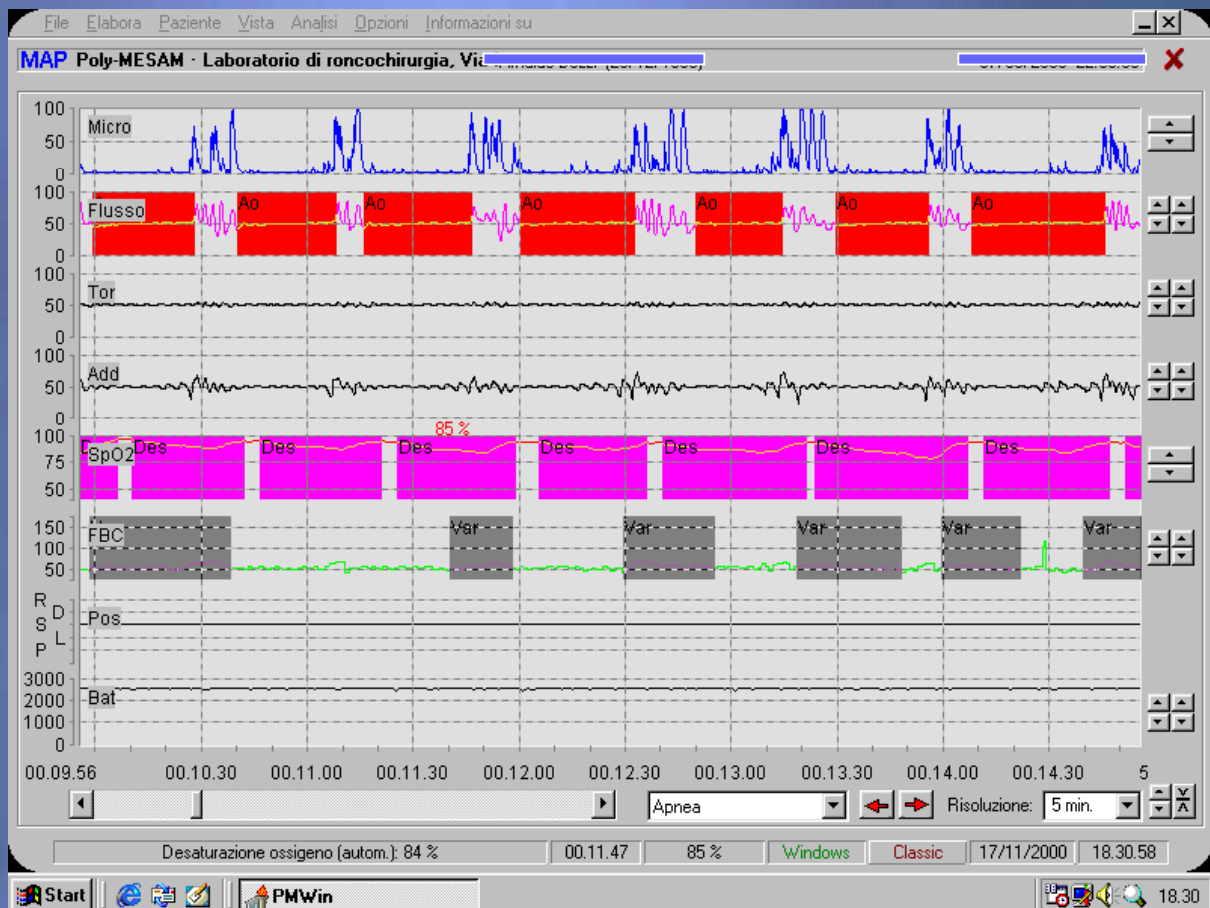
SIMPLE SNORING



UARS



OSAHS



Would you approach stapes surgery without audiometry ?



**THANK YOU FOR
YOUR ATTENTION ... and**

