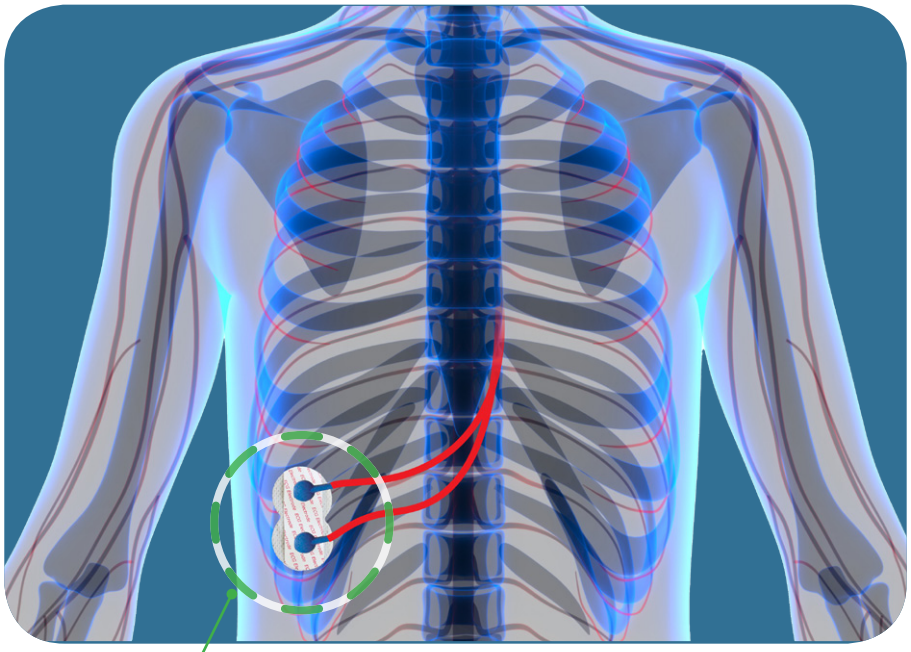
SIMPLY BETTER. FOR THE RECORDING OF RESPIRATORY EFFORT SIGNALS

INTERCOSTAL EMG



INTERCOSTAL EMG

- ✓ Direct recording of breathing stimulation
- ✓ Signal directly reflects muscle activity (electrical signal)
- ✓ Monitoring tool for respiratory insufficiency/ muscle dysfunction[1,2]
- ✓ One sensor size for all patients
- ✓ Disposable electrodes – fast and cost effective and no disinfection/cleaning of the sensor

STANDARD EFFORT BELTS

- ✖ No representation of direct breathing effort
- ✖ Signals depend strongly on the muscles' ability to contract
- ✖ Belt positioning determines the correct abdomen/thorax effort signal
- ✖ Individual belt sizes needed
- ✖ Disposable belts or time-consuming cleaning of re-usable belts

[1] M.L. Duiverman et al., J. Appl. Physiol. 2004, 96, 1723-1729.
[2] E. J. W. Maarsingh,et al., J. Appl. Physiol. 2000, 88, 1955-1961.

Made in Germany

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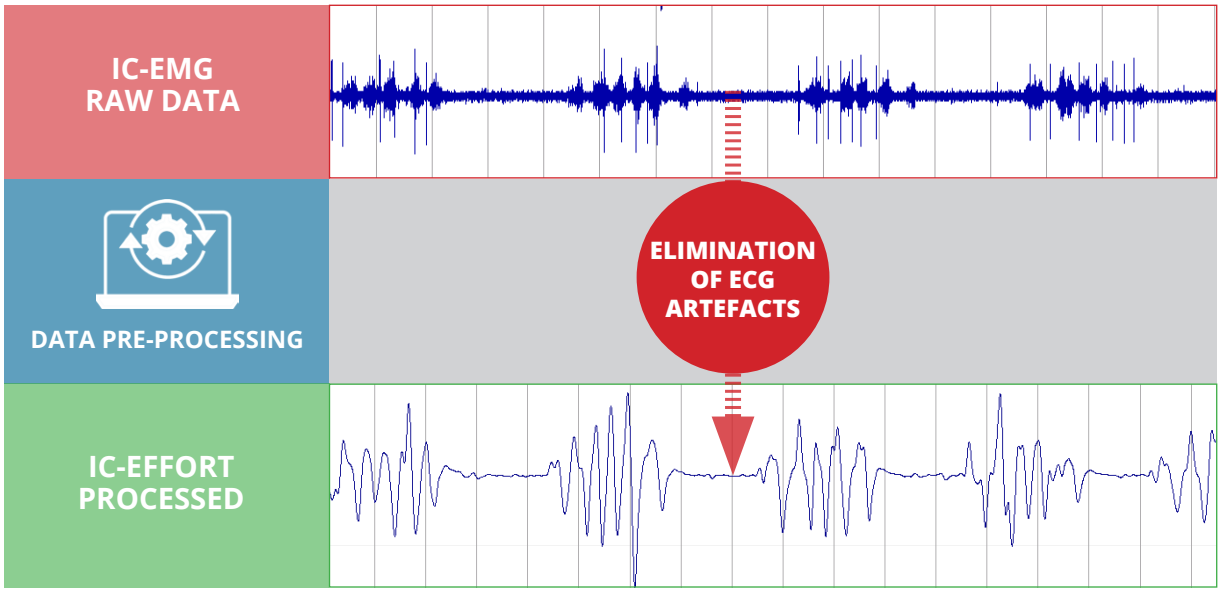
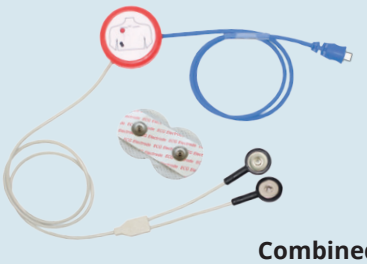
DATA PROCESSING

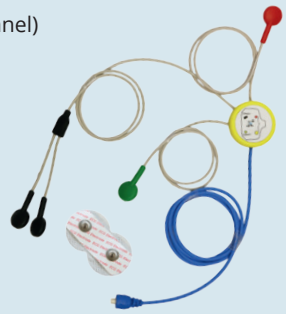


SENSORS

Single IC-EMG sensor
for SOMNOscreen™ plus (SEN623),
SOMNO HD™

Combined IC-EMG + ECG sensor (1-channel)
for SOMNOtouch™ RESP (TOS016)





Combined IC-EMG + ECG sensor (3-channel)
for SOMNOtouch™ NIBP (TOS015)

Photo cover page: iStock

CE 0494

THE DIFFERENCE

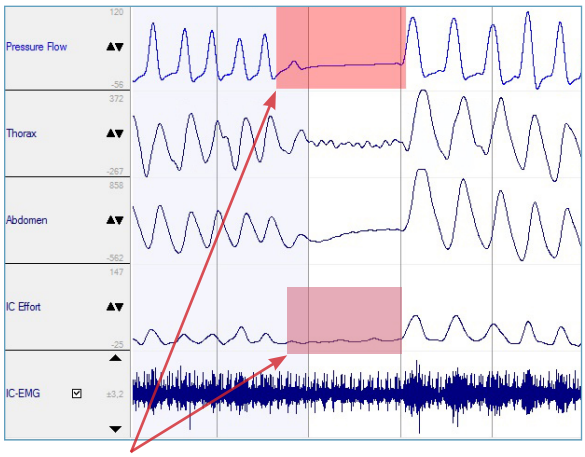
Best distinction between central and obstructive apneas

For central apneas, cardiac oscillations in the thorax channel may lead to faulty obstructive scoring. For obstructive apnea, as shown in this example, there is no clear effort visible for the thorax and abdomen channel. In contrast - the IC-EMG indicates a clear effort obstruction.

With a specialized algorithm ECG artefacts are removed and the IC-effort curve is generated.

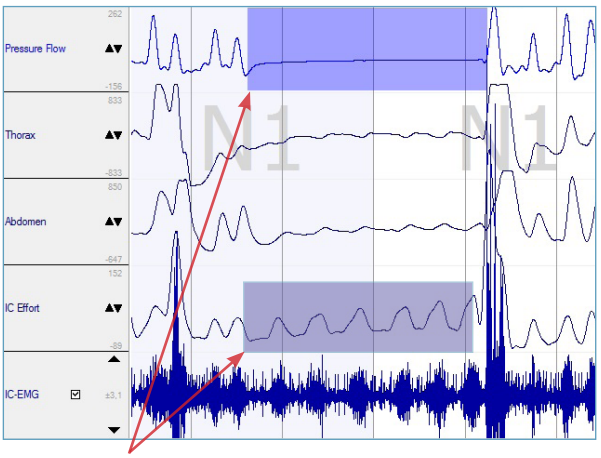
The calculated IC-effort signal enables a clear distinction between central and obstructive apnea. The oscillations of the IC-effort signal differ significantly for both cases.

CENTRAL APNEAS



No clear effort activity for thorax and abdomen channel visible

OBSTRUCTIVE APNEAS



The IC-EMG indicates a clear effort obstruction

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