

## Motion Biosensors for Dermatology Studies

Measuring Motion, Delivering Insights

Objective nocturnal sleep & scratching event measurement to evaluate the impact of a particular therapy or medication pertaining to Atopic Dermatitis.

### Philips New Standard in Sleep & Scratching Measurement

- Reduce time associated with Video scoring and Patient Reported Outcomes (PRO) subjectivity with automated high speed 3D motion data capture.
- Leverage data collection, analysis and insights via a medical device analytical tool to monitor device utiliization and therapy impact on motion and sleep -for direction regarding next phase research decisions.
- Discover more effective therapies for more people, through objective measures of scratching and sleep events.

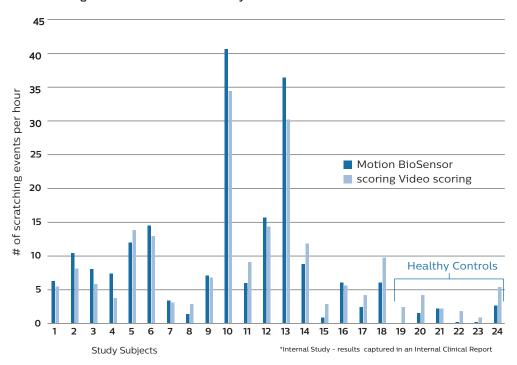
High resolution 3D motion capture discerns basic movement from scratching.





# **Atopic Dermatitis Study:** 98% Correlation between Data captured through **Wearable Motion Biosensor** Technology and Video Analysis

Scratching measurement across 24 subjects: Motion BioSensor and Video scored



Correlation rate indicates that Motion BioSensor technology offers a minimally invasive and economic alternative to Visual Data Scoring.

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#### **Novel Scratching Endpoints:**

# of scratching event(s) per subject # of scratching event(s) per hour Duration of each scratching event Time of each event

#### **Conventional Sleep Endpoints:**

Sleep efficiency Wake after sleep Onset (WASO) Total Sleep Time



#### More than a Device

- Advanced proprietary algorithms enable rapid data processing across sleep and wake periods – for multiple clinically relevant data endpoints. (i.e. # of scratching events, duration)
- Statistical data analysis and consultation services provide direction on protocol development and guidance regarding research/trial advancement.
- Actionable intelligence enhances overall research/trial preparation and execution efficiency.
- Philips advanced algorithm enhances efficiency with automated capture of customized data endpoints.
- Philips Motion Biosensor technology may be applicable to other areas of Dermatology, where motion provides relevant clinical insights.

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