

Wearable Device Testing & Validation

Exos' Human Performance Lab collaborates with wearable device and technology brands to expand research capacity and accelerate insights and product innovation.



Execute research quickly with customizable options.

Exos has the proprietary methodology to innovate at the speed of business, accelerating your wearable's time to market. We offer customization and pricing options that meet your needs.



Access diverse populations for studies.

With access to diverse study participants, from elite female and male athletes and military operators, to workforce populations and everyone in between, we generate real-world, unbiased data.



Leverage a team of experienced research partners.

With our team of 30+ experts, comprising an innovative multidisciplinary team of PhDs, scientists and practitioners, we quickly expand your research capacity.

Heart Rate Algorithm and Sensor Accuracy

The development of wearable technology that provides accurate data for all consumers is an ongoing challenge, with variability in demographic characteristics like skin tone and body size impacting the measurement of important metrics such as heart rate. Exos' Human Performance Lab partnered with a wearable sensor company to execute a series of 2-3 week data collection sprints in a diverse group of participants, to develop algorithms to improve heart rate sensor accuracy during high intensity activities.

- 500+ study participants
- 20-35% of participants self-assessed as 6-10 on the Monk Skin Tone scale
- 49% of participants categorized as overweight or obese

Continuous Glucose Monitor Use in Non-Diabetics

Wearable sensors are increasingly used by consumers in nonclinical settings to better understand and manage their health. Exos' Human Performance Lab partnered with a wearable developer on a fully remote 10-day observation and intervention study to measure glycaemic responses to specific nutritional triggers using CGM and non-CGM based signals. The data from this study was used to develop predictive algorithms for glycaemic responses in a diverse adult population.

- 93 enrolled participants
- 21 states of residence represented
- 12 standardized meals over six days to measure variability in glycaemic responses
- 33% of participants were of African American or Asian descent