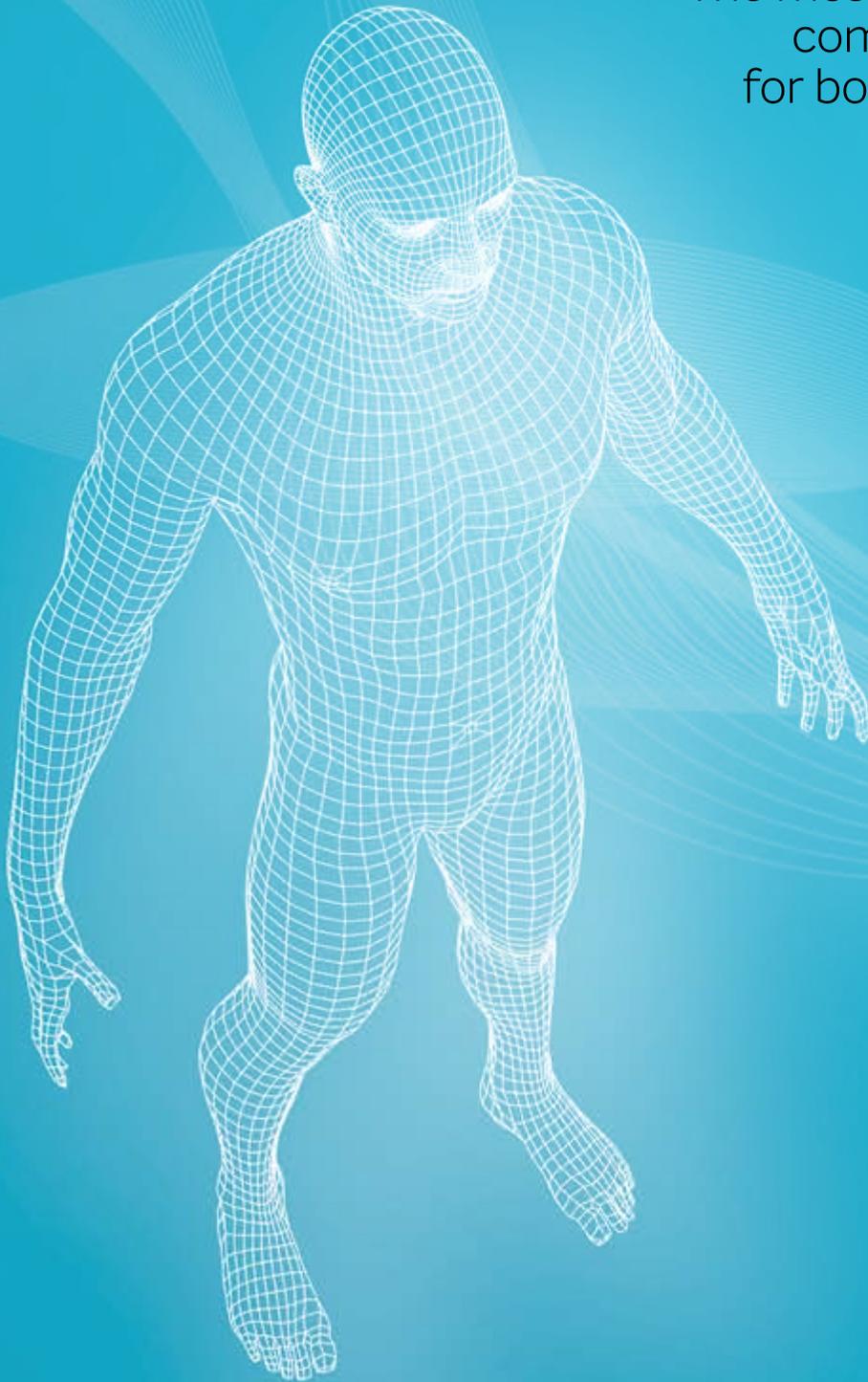# | BODY**GRAM**®
DASHBOARD

The most advanced and complete software for body composition assessment.

AKERN

BODY**GRAM**®
DASHBOARD

The most advanced software for body composition assessment. Powerful, flexible and complete.

BODYGRAM®, the latest software for body composition data analysis and interpretation, has now been improved and is more flexible, to provide accurate, reliable and clinically relevant results.

BODY**GRAM**® | **APPs**

RESEARCH

CLINICAL

FITNESS

SPORTS

NUTRITION

Reliable and clinically relevant results in alla biompedance fields thanks to the BODYGRAM® APPs:

Through specific Functional Applications (APPs) **BODYGRAM**® can adapt according to user's need across all Biompedance fields.

Akern®'s progress
and innovation
in your hands

Thanks to 40 years of research and presence in the market, more than 4000 peer reviewed articles and beyond 20.000 users globally, **AKERN®** solution in considered the reference for experts in body composition. **BODYGRAM®**, software incorporates **AKERN®**'s scientific progress and knowledge of body composition.

| BODY**GRAM**

WHY AKERN®

Algorithms are based on the true **hydration state** so **fat mass** and **fat free mass** estimates are more accurate.

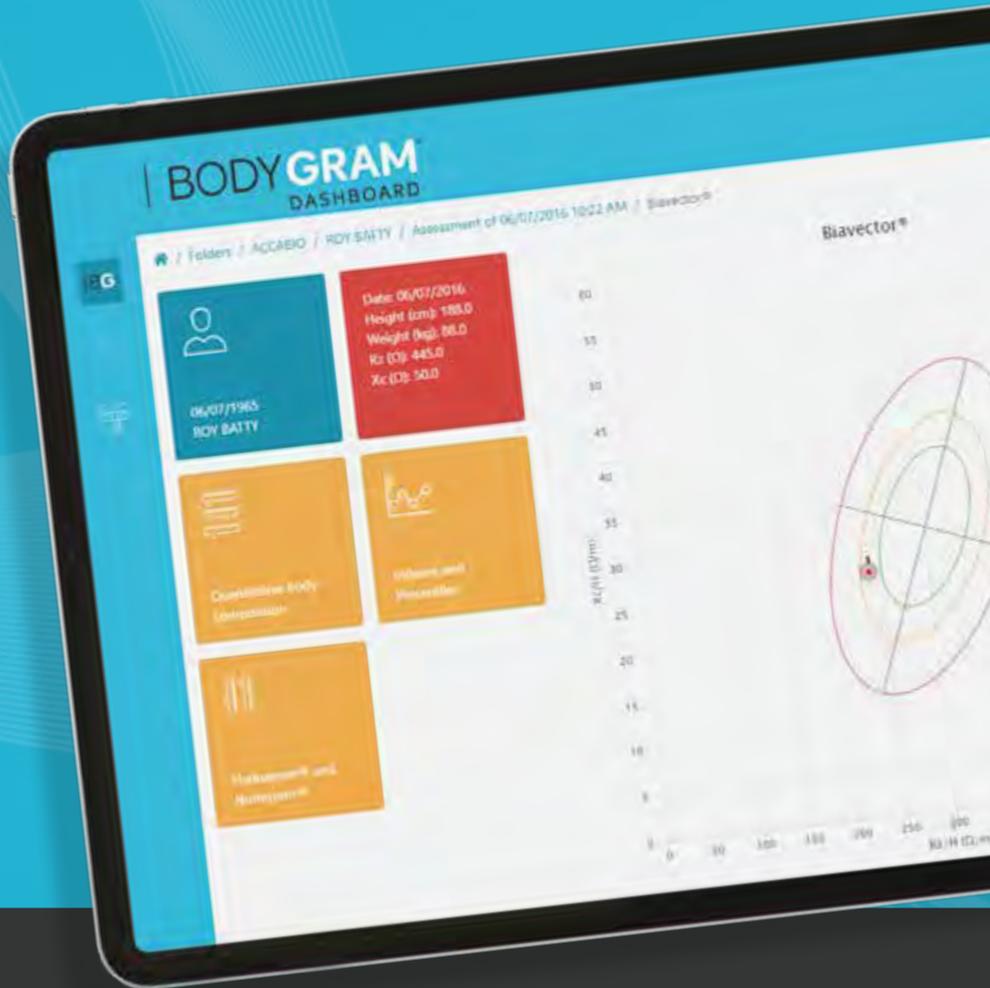Direct qualitative analysis of tissues using **BIVA** approach and the **Biavector®** nomogram.

Predictive formulas and specific reference values for **paediatric,** adult and **geriatric** populations.

4 YEARS
1980 • 2020

| BIA**VECTOR**®
| HYDRA**GRAM**®
| NUTRI**GRAM**®

Main functions

BIAVECTOR® NOMOGRAM

By introducing the Biavector® nomogram in 1994, AKERN® has been the first company to implement the Bioelectrical Impedance Vector Analysis (BIVA) within a body composition software. The Biavector® offers a direct interpretation of the hydration and nutritional status.

Being based only on tissue electrical properties, body mass and volume assessments are not influenced by errors derived from predictive equations. Impedance data interpretation further evolved with the introduction of **Hydragram**® and **Nutrigram**® scales.

HYDRAGRAM® SCALE:
TISSUE HYDRATION BY A NUMBER

Hydragram® provides the true subject hydration by giving fluids percentage within the fat free mass. Percentage values correlate with the impedance vector position on the Biavector® nomogram and follow the displacement along the major axis.

Hydragram® classifies subjects as Normohydrated, Hyperhydrated or Dehydrated according to the Moore et al.[1] classification. Subjetcs with altered hydration can be further stratified according to the degree of fluid alteration (mild, moderate or severe). The use of the Hydragram® scale for hydration state evaluation and monitoring is spreading increasingly also in clinical settings in association with other specific biomarkers as BNP, ProBNP, nGAL3 [2,3,4].

NUTRIGRAM® SCALE: A CLINICALLY VALIDATED PARAMETER FOR NUTRITIONAL STATUS ASSESSMENT

Nutrigram® provides an estimate of creatine excretion (Ucr/24h) obtained from BCM values. Creatinine is an indirect product of muscle cells totally excreted by the kidney.

The amount of creatinine detected in the 24h is used as a parameter to define the subject's cellular mass.

Nutrigram® values correlate with the position of the vector on the biavector® nomogram and follow the displacement along the minor axis. This parameter was recently validated and is particularly helpful for the management of patients at high risk of malnutrition who require continue nutritional support[5].

INDICES FOR SCREENING AND DIAGNOSIS OF MALNUTRITION AND SARCOPENIA ASSESSMENT

Fat Free Mass Index (FFMI) and **Fat Mass Index (FMI)** **BODYGRAM®** software can monitor the nutritional status over time through the use of FFMI and FMI percentile curves for Caucasian subjects from 18 to 98 years old.

Appendicular Skeletal Muscle Index (ASMI): this index represents the ratio between Appendicular Skeletal Muscle Mass (ASMM) calculated using Sergi's equation (Sergi et al.) and **height** ^{2} [6,7]. ASMI has been formally recognized by the latest European guidelines for diagnosis of Sarcopenia (EWGSOP 2).

Muscle Quality Index (MQI): this Index is a measure of muscle mass quality and depends on muscle strength measured dynamometry and the amount of estimated muscle mass.

Standardized Phase Angle (SPA): the phase angle standardized by sex and age. This parameter expresses, within the population of normal subjects, the ratio between average Phase Angle values of subjects belonging to a specific age and sex group and its standard deviation.

ANTHROPOMETRIC EVALUATION OF BODY CONSTITUTION AND CARDIO-METABOLIC RISK.

The anthropometric data that is collected is particularly important to monitor localized fat and to assess the risk of cardio-metabolic diseases. The software provides a simple method for anthropometric data collection and evaluation.

ANALYTICAL EVALUATION OF ENERGY EXPENDITURE

Integrates the calculation of daily energy expenditure with the level of physical activity (PAL) and the energy expenditure induced by physical and sports activities. Based on this data, the user can set a clear weight loss program, based on an accurate estimate of the energy requirement, adjust the calorie intake in the diet, plan the timing of the d the amount of weight to lose.

Science in body composition

AKERN

Enhanced features

BODYGRAM®'s latest release has been enriched with new features designed to improve overall performance.

Improved flexibility and customization to meet professionals need, better accessibility from any device and OS, enhanced data safety, optimized the procedure for updating and operational functionality.
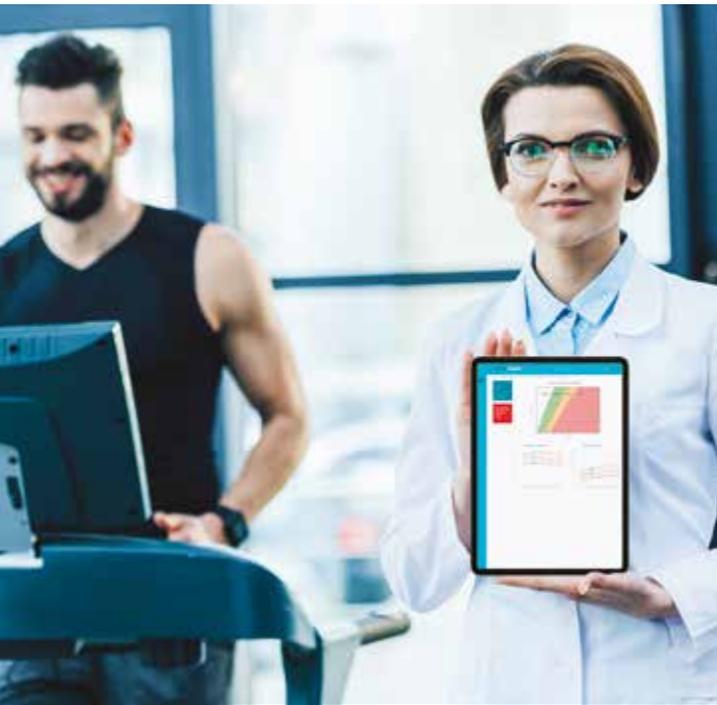
| BODY**GRAM**®
DASHBOARD

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CE MEDICAL DEVICE
BODYGRAM® is CE marked Class Medical Software.

UNLIMITED ACCESS TO THE EXAMS
BODYGRAM® is accessible from any type of device and compatible with the most popular OS: MacOS, iOS, Windows, Android on desktop, smartphone or tablet.

PERIODICAL SCIENTIFIC UPDATE
BODYGRAM® is constantly updated to guarantee a professional analysis tool always aligned with the progress of clinical research.

ONLINE AND OFFLINE WORKSPACES
BODYGRAM® allows for two different workspaces: Online on a dedicated server platform and Offline with the Desktop application (for Windows and MacOS).

GDPR COMPLIANCE
BODYGRAM® Patient data management is compliant with the GDPR (EU regulation 2016/679).

GDPR

AUTOMATIC DATABASE IMPORT
Migration to **BODYGRAM®** platform does not result in data loss. Your database will be imported automatically at your first log in.

CUSTOMIZED REPORTS
Now **BODYGRAM®** includes a new tool to create customized reports to address different patient management needs. User can choose which specific elements to have in the report to better guide the patient along his path.

COMPLETE STRUCTURE
The new **BODYGRAM®** software encloses in a single application all functions included in the add-on modules of the previous platform.

BACK-UP AND DATA STORAGE
BODYGRAM® includes an automatic Cloud based data back-up system and a data recovery function.

Science in body composition

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40 YEARS
1980 • 2020

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6) Sergi, Giuseppe, et al. "Assessing appendicular skeletal muscle mass with bioelectrical impedance analysis in free-living Caucasian older adults." Clinical nutrition 34.4 (2015): 667–673.

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Distributor:

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