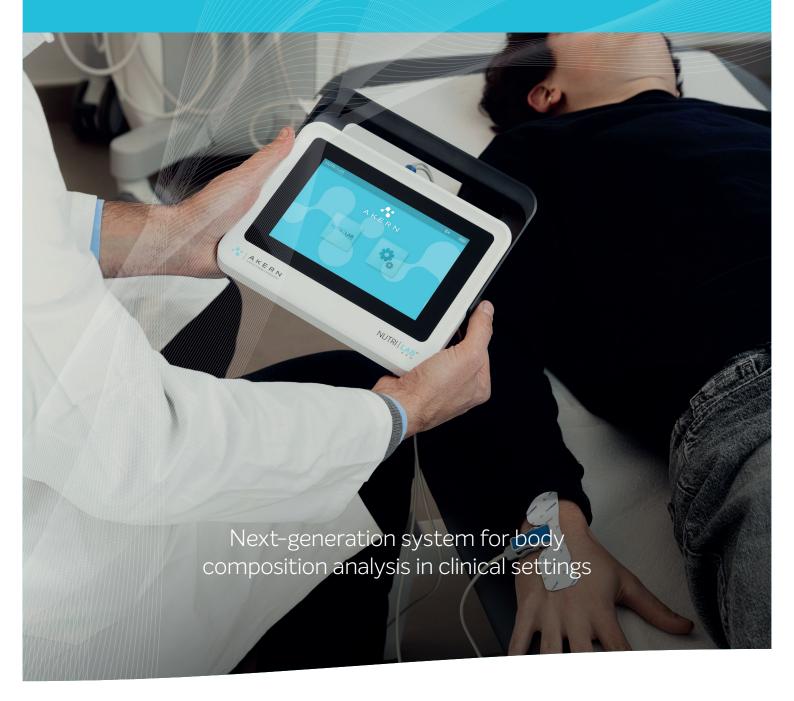
NUTRI LAB

Empowering clinical practice through body composition analysis



Nutrilab™ PRO is a unique, portable, multifunction touchscreen body composition analyzer.

Designed to meet the needs of modern clinical practice, this device monitors changes in bioelectric parameters (BIVA), facilitating the early identification and management of critical conditions such as **sarcopenia**, **malnutrition and sarcopenic obesity**.

Built in accordance with the **guidelines of leading scientific societies** (ESPEN, EASO, ERAS, ESC, ESE, ESMO), the system integrates **accuracy, portability and scientific rigor**, raising the quality of patient care.

Test results can be saved directly in the device's memory and transferred for further analysis to **Bodygram® HBO** medical software, specifically designed for healthcare organizations.



Assess & Monitor



QUALITATIVE & QUANTITATIVE BODY COMPOSITION



MALNUTRITION



SARCOPENIA



SARCOPENIC OBESITY



HYDRATION



PARAMETERS OVER TIME

Nutrilab™ PRO is the most reliable sensor for:

- Early identification of phase angolo abnormalities as a medium- and long-term prognostic indicator;
- Screening for malnutrition and sarcopenia according to GLIM and GLIS criteria;
- Therapy optimization for patients at high risk of events in the short and medium term;
- Simplifies follow-up protocols after hospital discharge.

Nutrilab™ PRO includes specific parameters for:

- Malnutrition:
 - Standardized Phase Angle (SPA); Appendicular Skeletal Muscle Mass Index (ASMMI); Nutrigram®;
- Sarcopenia
 - Appendicular Skeletal Muscle Mass Index (ASMMI); Skeletal Muscle Mass Index (SMMI); Fat-Free Mass Index (FFMI); HGS;
- Sarcopenic Obesity: HGS; Disease Risk Index;
- Prognosis and Body Composition Quality:
 Phase Angle Percentiles and Standardised Phase Angle (SPhA);
- Sensitive and specific monitoring of hydration status, thanks to the Hydragram algorithm, clinically validated in cardio-nephrology, intensive care, oncology.

NUTRI LAB

Nutrilab™ PRO redefines body composition analysis with cutting-edge technology designed to deliver reliable performance in the clinic, on the ward and at home.

Validated for use in numerous fields, including nephrology, cardiology, intensive care, clinical nutrition, oncology, paediatrics and geriatrics, **Nutrilab™ PRO guarantees unrivalled accurate and immediate results.**



INNOVATIVE

With its innovative and ergonomic design, Nutrilab PRO combines **functionality with comfort**. Lightweight and easy to handle, it ensures effortless use in all healthcare settings.



RELIABLE

The SIGNAL QUALITY INDEX (SQI)

function allows to assess data reliability in real-time, based on the quality of the signal. The SQI is expressed through a 6-star score that provides immediate feedback on the clinical reliability of the test, facilitating quick and informed interpretation of the results.



ALL-IN-ONE DEVICE

Clear, effective and organised display of relevant data and parameters on the screen.



USER FRIENDLY

Cutting-edge technology that improves and optimizes the user experience to meet HCPs clinical needs.





Certifications



AKERN® has been developing medical solutions dedicated to measuring body composition since 1980. Our **Quality Management System**, structured according to **ISO 9001** and **ISO 13485**, allows us to continuously improve our processes, products and services.





CE Medical Device CLASS IIA

BODYGRAM

CE Medical Device CLASS I

Nutrilab™ PRO is designed for safe and universal use: it has no age restrictions or contraindications in patients with implantable medical devices, prostheses or who are pregnant.

MODEL	PRODUCT CATALOGUE NO.	DESCRIPTION
NUTRILAB™ PRO	00NPO	Phase sensitive bioelectrical impedance analyser with hydration and nutrition monitor for detailed BIVA, 3C total body analysis, specific panels for screening and diagnosis of malnutrition and sarcopenia.
		Includes Bodygram® HBO software analysis licence.
		Supplied with one tetrapolar cable set for total body measurement, battery charger, circuit tester, carrying case, operator manuals, 1 pouch of compatible electrodes.
ELETTRODI BIATRODES™	OELB100	Disposable single-use low impedance electrode certified for bioimpedance analysis. 1 pouch of electrodes = 100 units (25 tests).
ELETTRODI BIVATRODES™	OELBIVA	Disposable single-use low impedance electrode, pre-spaced, certified for bioimpedance analysis, highly repeatable. 1 pouch of electrodes = 36 units (18 tests).

Only the use of compliant, **AKERN**® branded disposable electrodes guarantees the certified performance of all **AKERN**® sensors, validated in over 4500 publications for 45 years.

Bibliographic references

- 1. Donini et al., Definition and Diagnostic Criteria for Sarcopenic Obesity: ESPEN and EASO Consensus Statement. Obes Facts. 2022;15(3):321–335. DOI: 10.1159/000521241. Epub 2022 Feb 23.
- 2. Cruz-Jentoft et al; Writing Group for the European Working Group on Sarcopenia in Older People 2 (EWGSOP2), and the Extended Group for EWGSOP2. Sarcopenia: revised European consensus on definition and diagnosis. Age Ageing. 2019 Jan 1;48(1):16-31. doi: 10.1093/ageing/afy169. Erratum in: Age Ageing. 2019 Jul 1;48(4):601. doi: 10.1093/ageing/afz046.
- 3. Norman K, Herpich C, Müller-Werdan U. Role of phase angle in older adults with focus on the geriatric syndromes sarcopenia and frailty. Rev Endocr Metab Disord. 2023 Jun;24(3):429-437. doi: 10.1007/s11154-022-09772-3. Epub 2022 Dec 2.
- 4. Cereda E, Casirati A, Klersy C, Nardi M, Vandoni G, Agnello E, Crotti S, Masi S, Ferrari A, Pedrazzoli P, Caccialanza R; ONCO-BIVA Collaborative Group. Bioimpedance-derived body composition parameters predict mortality and dose-limiting toxicity: the multicenter ONCO-BIVA study. ESMO Open. 2024 Aug;9(8):103666. doi: 10.1016/j.esmoop.2024.103666.
- 5. Diagnostic criteria for malnutrition An ESPEN Consensus Statement Cederholm, T. et al. Clinical Nutrition, Volume 34, Issue 3, 335 340.

- 6. New bioelectrical impedance vector references and phase angle centile curves in 4,367 adults: The need for an urgent update after 30 years Campa, Francesco et al.
- Clinical Nutrition, Volume 42, Issue 9, 1749 1758.
- 7. Ofenheimer, A., Breyer-Kohansal, R., Hartl, S. et al. Reference values of body composition parameters and visceral adipose tissue (VAT) by DXA in adults aged 18–81 years—results from the LEAD cohort. Eur J Clin Nutr 74, 1181–1191 (2020). https://doi.org/10.1038/s41430-020-0596-5.
- 8. The severity of early fluid overload assessed by bioelectrical vector impedance as an independent risk factor for longer patient care after cardiac surgery
- Sanson, Gianfranco et al. Clinical Nutrition, Volume 43, Issue 3, 803 814.
- 9. Scicchitano P, Ciccone MM, Iacoviello M, Guida P, De Palo M, Potenza A, Basile M, Sasanelli P, Trotta F, Sanasi M, Caldarola P, Massari F. Respiratory failure and bioelectrical phase angle are independent predictors for long-term survival in acute heart failure. Scand Cardiovasc J. 2022 Dec;56(1):28-34. doi: 10.1080/14017431.2022.2060527. PMID: 35389300.

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