

seca mBCA 525

The medical choice for mobile
body composition analysis



Mobile bioelectrical impedance analysis further developed: seca mBCA 525



The seca mBCA 525 is the compact, mobile BIA solution that measures muscle mass, fat mass and body water. These and other parameters such as phase angle, visceral fat and the body composition chart (BCC) are much more meaningful than weight and height alone.

The measurement is done via bioelectrical impedance analysis in the supine position. It is fast, economical, non-invasive, precise and medically validated. The innovative measuring mat and monitor make the seca mBCA 525 particularly user-friendly and provide an analysis directly on the device.



“The bio impedance analysis is in general a fast and uncomplicated way to evaluate a patients’ weight loss. We chose the seca mBCA for our clinic since it fulfills extremely high standards with regards to its precision and reproduceability. Especially the differentiation between fat, muscles and water gives me and my patients a much more comprehensive understanding of their weight loss instead of just considering the BMI.”

Dr. Nadia Ahmad
Internal Medicine, Obesity Specialist
Obesity Medicine Institute, Dubai,
United Arab Emirates

Advantages of body composition analysis:

- + Symptoms of malnutrition can be detected early by looking at fat-free mass
- + Diagnosing sarcopenia with the help of evaluating muscle mass
- + Monitor muscle loss/gain during therapy and intervene early if necessary
- + More effectively engage and motivate patients throughout obesity treatment

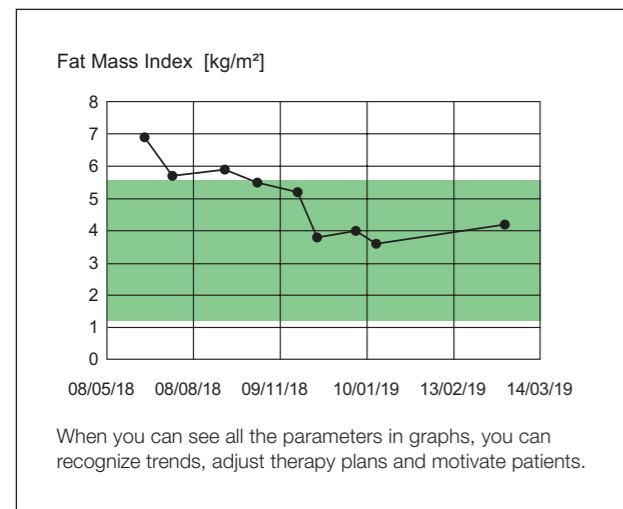
Which parameters the seca mBCA delivers to you.

BMI

As a diagnostic value, BMI is the starting point for a closer look at body analysis. Then the exact portions of muscle mass, fat mass and body water can be interpreted.

Fat mass

Many serious diseases are associated with overweight and obesity. By closely observing fat mass, you can assess meaningful changes and monitor fat loss.



Visceral fat

High visceral fat can lead to heart diseases, high blood pressure and Type 2 diabetes. Quantify visceral fat and educate your patients about the health risks.

Patient Data

ID: 67543
Name: Jane Doe
34 female 15/03/2019 11:45

BMI

Weight: 71.50 kg BMI: 27.93 kg/m²
Height: 1.601 m

BMI [kg/m²] scale: under-weight (18.5-25.0), normal weight (25.0-30.0), **over-weight (27.9)**, obesity (30.0+)

Fat Mass

Fat Mass (FM): 32.25 kg (45.1%)* Fat Mass Index (FMI): 12.6 kg/m²

FMI [kg/m²] scale: low (3.8-8.7), normal (8.7-12.4), **increased (12.6)**, high (12.4+)

Visceral Fat & Waist Circumference

Visceral Adipose Tissue (VAT): 1.1 l Waist Circumference (WC): 0.82 m

VAT [l] scale: normal (1.2-1.9), **increased (1.1)**, high (1.9+)

WC [in] scale: < 0.800 m, **> 0.800 m (0.82 m)**

* percentage of body weight

MVZ Diabetology

John Smith, MD
Specialist for internal medicine diabetology

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Germany

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YOUR LOGO

Skeletal Muscle Mass

Skeletal Muscle Mass (SMM): 16.20 kg

Body Composition Chart

Fat Mass Index (FMI): 12.6 kg/m² Fat-Free Mass Index (FFMI): 15.3 kg/m²

Phase Angle

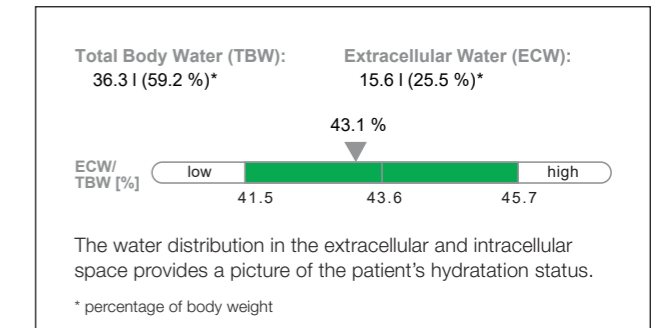
Phase Angle (φ): 5.0° Percentile: 1.

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Personalized printout

You can personalize the printout by adding your facility address or logo. Use a one-page or multi-page version to highlight parameters as you see fit.

- Other possible output parameters are:
- + Energy consumption
 - + Fat-free mass
 - + Bioelectrical impedance vector analysis
 - + Intracellular/extracellular water



Skeletal muscle mass

Lack of muscle mass (sarcopenia) is accompanied by undesired effects. Therefore, it is essential to assess and monitor muscle mass during the course of therapy.

Body composition chart (BCC)

With regular serial measurements of body composition, the BCC clearly shows the nature of weight changes. It is possible to make a qualitative assessment of the changes only when fat mass and fat-free mass are looked at together. Then it is clear whether the patient has reduced fat mass or has lost muscle mass.

Phase angle

A high phase angle is evidence of intact cells and therefore an indicator of generally good health. On the other hand, in cases of malnutrition and degenerative illnesses like cancer or patients with water retention, the phase angle is usually very low.

What undisputed accuracy lends to the seca mBCA.



“What fascinates me most about the seca mBCA is that the result is already presented in sarcopenia and hydration charts. Together with the phase angle, this gives an adequate picture of the state of health. The precision of the values is impressive. The BMI has already contributed a lot to medicine but needs updating and modernization. In the not-too-distant future, we will have an mBCA in every healthcare facility.”

Dr. Marco Paulo de Benedetto
Nutrologist
Modernist - Medicina Integrativa,
Maringá, Brazil

Medically validated accuracy

In an in-depth clinical study, around 130 subjects were measured with the seca mBCA and with the most accurate corresponding reference method (see right page). From this study the calculations for the seca mBCA were generated and validated. Each one of the reference methods used represents the scientifically recognized gold standard. The seca mBCA is the only BIA device that has been validated so extensively.

Transparent publicized study

As the only manufacturer of BIA devices, we bundled and published our validation studies in the European Journal of Clinical Nutrition.^{1,2}

Validated multi-ethnic normal ranges

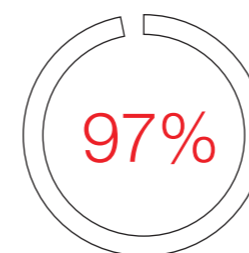
Normal ranges are required for immediate classification of measurements. Is muscle mass normal or too low? The seca mBCA has access to the body composition of more than 3,000 healthy subjects of varied ethnicities. Which ones were measured were likewise publicized.³

International cooperation in research

Our studies were conducted in renowned hospitals, including the University of Tokyo Hospital, Institute of Nutrition and Food Science in Kiel and St. Luke's-Roosevelt Hospital in New York. The study managers and authors are recognized specialists who work with seca on the advanced development of bioelectrical impedance analysis for medical use.



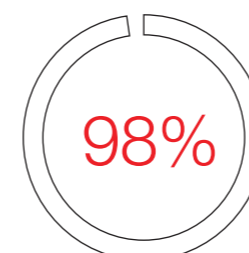
¹ Quantification of whole-body and segmental skeletal muscle mass using phase-sensitive 8-electrode medical bioelectrical impedance devices. Bosty-Westphal A, Jensen B, Braun W, Pourhassan M, Gallagher D, Müller MJ. Eur J Clin Nutr. 2017 Mar 22. doi: 10.1038/ejcn.2017.27
² What makes a BIA equation unique? Validity of eight-electrode multifrequency BIA to estimate body composition in a healthy adult population. Bosty-Westphal A, Schautz B, Later W, Kehayias JJ, Gallagher D, Müller MJ. Eur J Clin Nutr. 2013; 67: 14-21; doi: 10.1038/ejcn.2012.160
³ Ethnic differences in fat and muscle mass and their implication for interpretation of bioelectrical impedance vector analysis. Björn Jensen, Takashi Moritoyo, Martha Kaufer-Horwitz, Sven Peine, Kristina Norman, Michael J. Maisch, Aya Matsumoto, Yuka Masui, Antonio Velázquez-González, Jannet Domínguez-García, Elizabeth Fonz-Enríquez, Saori G Salgado-Moctezuma, Anja Bosty-Westphal. Appl. Physiol. Nutr. Metab. https://www.nrcresearchpress.com/doi/pdf/10.1139/apnm-2018-0276



97% precision in muscle mass compared to full-body MRI

More than 250 sectional images were analyzed for each subject. The high resolution of magnetic resonance imaging provides particularly high contrast, differentiated pictures of muscle mass, in contrast to imprecise DXA (Dual energy X-ray absorptiometry).

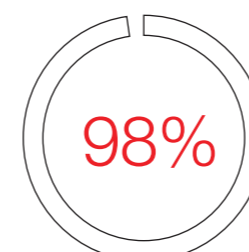
seca mBCA: less time and labor-consuming and more pleasant for patients



98% precision in fat mass and fat-free mass compared to the 4C model

The complex, time-consuming 4-compartment model takes into account the biological variability of the body's water content. Other reference methods such as DXA can yield imprecise findings, particularly in overweight, elderly or athletic persons.

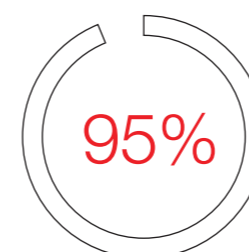
seca mBCA: highly precise, accurate and fast measurement



98% precision in total body water compared to D₂O dilution

Body water is marked with the isotope deuterium and total body water is determined from the distribution area. The enrichment of deuterium in the blood is analyzed by means of mass spectrometry.

seca mBCA: precise determination of total body water without complicated laboratory tests



95% precision in extracellular water compared to NaBr dilution

Unlike deuterium, which is so small that it passes through the cell membrane, the larger sodium bromide isotope is spread throughout extracellular water. Because water retention first appears in the extracellular space, it is very important to determine extracellular fluid precisely.

seca mBCA: immediate results without long waiting times or blood tests



Network connection

Measurement results can be transmitted to a PC and printed or analyzed right on the monitor. The seca mBCA 525 can also receive height and weight data from seca scales, stadiometers and measuring stations.



EMR
Integration

Highest quality

Measuring mat and monitor were subjected to demanding endurance tests. They are unbreakable and very easy to clean and disinfect. The user can operate the touchscreen through the protective cover or while wearing gloves.

Improved measurement of supine position

The patented measuring mat simplifies the process of hooking up the patient. Because the mat functions independently, a measurement can be conducted when mat and monitor are in separate places.



“seca looks after the integration of your seca mBCA from start to finish. After making a detailed analysis of the status quo of your digital infrastructure, we oversee the integration up to the first measurement transmission and beyond with regular software updates and maintenance of your device.”

Dr.-Ing. Richard Mietz
Team Manager Integration Solutions
International
seca gmbh & co. kg,
Hamburg, Germany

Medically validated BIA, mobile and at your fingertips.

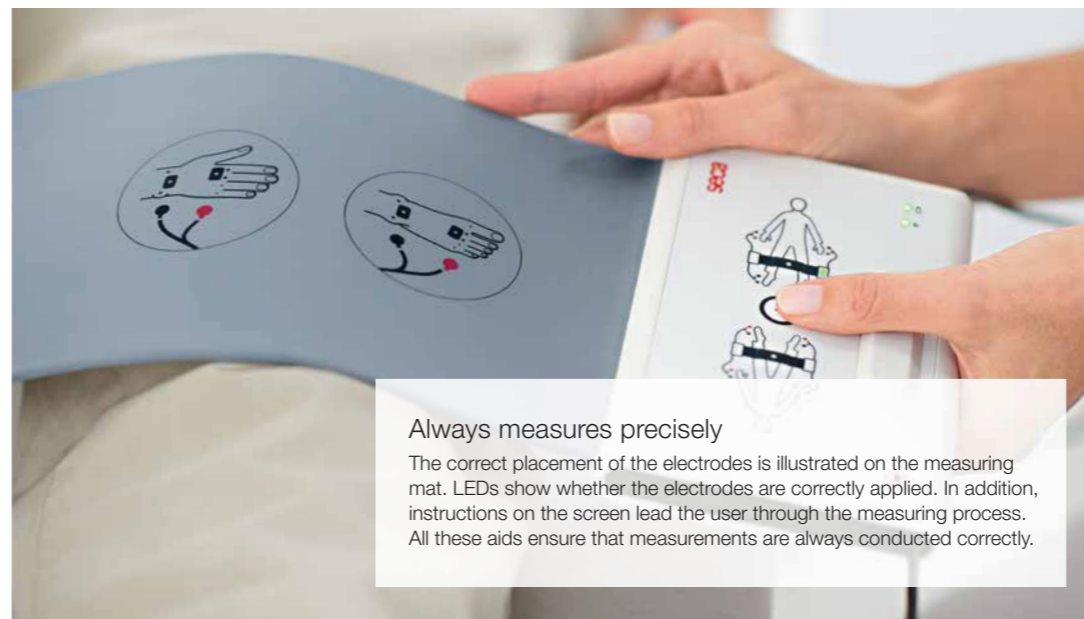
The seca mBCA 525 was specially designed and validated for mobile medical use. At only three kilograms, it is ideally suited for measurements made anywhere in hospitals or during home visits.

Because patients are measured in supine position, the body composition of bedridden persons can be determined comfortably and accurately.



Easy Snap™ electrodes

The rectangular shape of the adhesive electrodes simplifies positioning and the Easy Snap™ mechanism requires no pressure to connect electrodes to cables.



Always measures precisely

The correct placement of the electrodes is illustrated on the measuring mat. LEDs show whether the electrodes are correctly applied. In addition, instructions on the screen lead the user through the measuring process. All these aids ensure that measurements are always conducted correctly.



Induction charging

Once the measuring process is complete, the measuring mat is placed in the transport compartment behind the monitor, where it is charged via induction. If WiFi has been disabled, the measurements stored in the interim are now synchronized with the monitor.



“I appreciate being able to measure my patients and clients with the best BIA device available on the market. For me that is the seca mBCA. Everyone values the professional and in-depth counseling that I can offer with the help of the measurement results. That not only reinforces confidence in my advice, but it also helps us to succeed. The investment in the medically validated seca device has paid off in every way.”

Nelly Kreß
Nutritional Counseling
Berlin, Germany

How the seca mBCA pays off for you.

We offer you personalized consultation for the investment in body composition analysis. Speak with our experts.

An investment in the future

Put your money on medical BIA technology with undisputed precision and accuracy.

Enhanced services

Expand the technical possibilities of your medical practice and offer your patients even more.

Secure refinancing

We will give you detailed advice about amortization models and simple financing options.

Any questions? Please contact us under:

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seca asia pacific	+60 173 711 973
seca benelux	+31 852 738 426

How the seca service relieves you.*



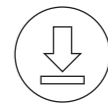
Installation service

We don't leave you alone with the setup of the seca mBCA. Its immediate operation is ensured.



Interpretation training

You'll become a BIA pro with our help. We train you and your personnel at your facility on the clinical use of the seca mBCA and the analysis of the parameters, with a focus on your medical specialty.



Software updates

You'll receive regular software updates which include performance improvements and incorporate the latest results from research.



Hotline

Our qualified service personnel are available to answer your questions about seca products. The responsible seca branch for your market you will find on the backside of this brochure.



Repair service

seca mBCA devices are robust and therefore, repairs are rarely required. Our repair service is available to you at all times so that your device is always ready for use.



Integration service

If you wish to have your seca mBCA integrated into your digital infrastructure, we oversee the integration up to the first measurement transmission and beyond with regular software updates and maintenance.

* seca services can also be provided through our authorized seca partners.

How you can see the seca mBCA at work.

We'll be happy to give you a free product presentation with no obligation to purchase. You can become acquainted with the seca mBCA and have all your questions answered. Please contact us!

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