

Medical Scales
and Measuring Systems
since 1840

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seca | mBCA



Service

Telephone consultation in the U.K. is available from Monday to Thursday between 8.45 a.m and 5 p.m and Friday until 4.45 p.m on **0121 643 9349**.



Where BMI ends, seca mBCA begins – the unique diagnostic instrument for hospitals and medical practices.



Doctors know that the Body Mass Index (BMI) alone is not enough for extensive analysis of a patient's health status and body composition.

What about contents of fat, muscle, or water? All of which are important indicators of underlying medical conditions.

This challenge gave seca enough reason to develop a device to measure body composition (Body Composition Analyzer, which we will refer to as "BCA"). The first and only device in the world that delivers all values and has been correlated and validated against the medical science gold standard.

For the first time ever, a single measurement can be taken in less than 20 seconds to determine fat mass, extracellular and intracellular water, and skeletal muscle mass. All of which are fundamental components that assist in accurately assessing the patient with medical precision. With a simple, user friendly medical device that can be seamlessly integrated into your daily routine.

A valuable diagnostic instrument and innovative device, that delivers precise benefits to your patients.

Five decisive advantages for medicine:

- 1** Starting now, you can assess the general health and nutritional status of your patients better, faster and more precisely than ever before.
- 2** A brief examination of less than 20 seconds is enough
- 3** To receive early indicators of many diseases
- 4** To closer monitor the course of therapy.
- 5** All that with the first medical BCA device in the world that can conduct measurements with medical precision.





Clinically validated results.

Only for seca mBCA.

Clinically validated, medically precise, and medically relevant. seca is the only manufacturer in the world that has compared its measurement results from the seca mBCA with those of the scientific gold standard in clinical studies. It is clear that the seca mBCA not only promises to but also fulfills medical requirements.

The only measurement that can measure itself against the gold standard.

Only the seca mBCA compares fat mass (FM) and fat-free mass (FFM) with the gold standard, which is a combination of four labour-intensive comparative methods (ADP*, D₂O*, DEXA* and weight). Furthermore, seca compared extracellular water with the NaBr* method. The results are clear: In contrast to many other BCA measurement devices on the market, the seca mBCA delivers measurements that are nearly as precise as the immensely complicated scientific methods.

***ADP:** Air-Displacement Plethysmography

D₂O: Deuterium Dilution

DEXA: Dual-Energy X-Ray Absorptiometry

NaBr: Sodium Bromide Dilution

The only measurement that takes ethnic differences into account.

In the validation of the seca mBCA four major ethnicities were considered: Caucasian, South and Central American, Afro-American, and Asian.

Abnormal body composition.

Even abnormal body composition was considered in the validation of the seca mBCA. In contrast to most other BCA devices, which were validated only for healthy patients.

Simplified work, quick measurement and medically relevant results – that is the seca mBCA 515*.

The seca mBCA 515 is the first medical Body Composition Analyzer which is ideally adapted to the working conditions in hospitals and medical practices. In order to obtain a truly meaningful BIA measurement, we need to look beyond the many technical requirements. For one thing, the device has to be quick and easy to use for both medical staff and patients. For another, the measurement results have to be reproducible under normal clinical working conditions. These exact considerations went into the development of the seca mBCA 515.

seca mBCA 515

Technical data



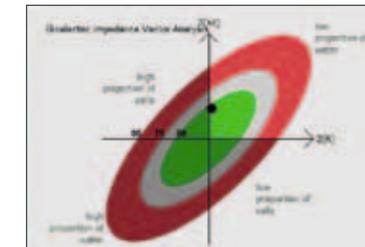
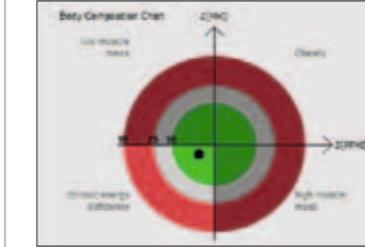
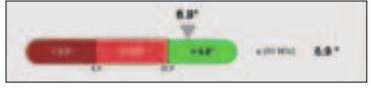
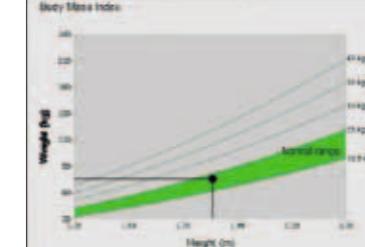
- Capacity: 300 kg
- Division: 50 g
- Calibration class: II
- Medical device class: IIa
- Dimensions (WxHxD): 976 x 1,251 x 828 mm
- Display type: 8.4" touch-screen display, can be rotated 360°
- Interfaces: seca 360° wireless, USB 2.0, Ethernet
- Measurement method: 8-point Bioelectrical Impedance Analysis
- Measurement current: 100 µA
- Measurement time, normal mode: max. 20 seconds

*also available in unapproved version as seca mBCA 514

Six times more from every measurement.

With the six modules in the seca mBCA 515.

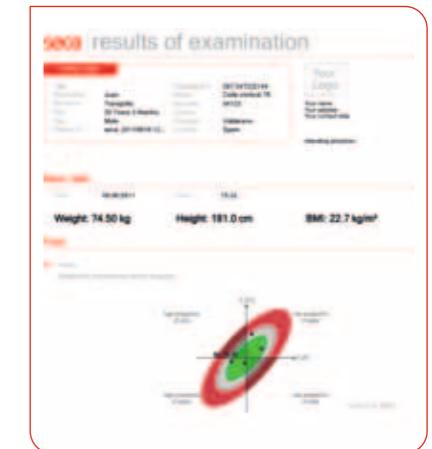
The six analytical modules of the new seca mBCA 515 offer the user innumerable diagnostic options. With precise ratios such as fat mass to weight or extracellular to intracellular water, the doctor can now obtain indications of medical disorders which were previously difficult to diagnose without additional examinations. Another significant advantage comes with the graphic presentation of measurement results, which visualises the doctor's findings for the patient.

Energy The module Energy provides data on the energy stores in the body not only in absolutes, but also as a relative value of fat mass to weight. It can also calculate the resting energy and total energy expenditure. <ul style="list-style-type: none">• Fat mass (FM/%FM)  <ul style="list-style-type: none">• Energy stores in body• Resting energy expenditure (REE)• Total energy expenditure (TEE)	Fluid The Fluid module determines TBW and its components extracellular and intracellular water. An excessively high proportion of extracellular water could indicate that the patient is retaining water. With the help of Bioelectrical Impedance Vector Analysis (BIVA), the patient's fluid status can be presented in graphic form. <ul style="list-style-type: none">• Total body water (TBW)• Extracellular water (ECW)• Hydration (HYD) = Extracellular water/intracellular water• Bioelectrical Impedance Vector Analysis (BIVA) 	Function/Rehabilitation The module Function/Rehabilitation ascertains the patient's level of fitness, metabolic activity and any training progress. The Body Composition Chart (BCC) developed by seca depicts the measurement points of the fat mass indices over a coordinate system and helps to determine body composition. <ul style="list-style-type: none">• Fat-free mass (FFM)• Fat mass (FM/%FM)• Fat mass indices (FFMI/FMI)  <ul style="list-style-type: none">• Skeletal muscle mass (SMM)
Health risk A prognosis for the patient's general health can be made with the Health risk module. The decisive factor is the phase angle, from which conclusions can be drawn about the condition of the body's cells or the entire organism. This evaluation is shown in the BIVA. The module also determines fat mass index (FMI) and fat-free mass index (FFMI) and plots them in the BCC. <ul style="list-style-type: none">• Phase angle (ϕ)  <ul style="list-style-type: none">• Hydration (HYD) = Extracellular water (ECW)/intracellular water (ICW)• Bioelectrical Impedance Vector Analysis (BIVA)• Fat mass indices (FFMI/FMI)	Development/Growth The module Development/Growth allows monitoring of changes in weight, as the patient's weight, height and BMI are graphically presented for each measurement. <ul style="list-style-type: none">• Weight (W)• Height (H)• Body Mass Index (BMI) 	Raw impedance data The Raw impedance data module reports the results of the Bioelectrical Impedance Analysis in raw data form so that they can be used for clinical studies. The data includes impedance, phase angle, resistance, and reactance. <ul style="list-style-type: none">• Impedance (Z)• Phase angle (ϕ)• Resistance (R)• Reactance (Xc)

The PC software seca analytics mBCA 115 for expanded analysis.

The PC software seca analytics mBCA 115 does more than deliver the examination results from the seca mBCA to your PC. It offers some additional and significant advantages.

- Set up your PC so that it can wirelessly receive the measurements of the seca mBCA and other seca 360° wireless devices.
- Acquire the Cardiometabolic risk and the detailed Raw impedance data module for science and research, additional interpretation options, trend curves and the therapy planner.
- Generate easy-to-understand graphic presentations and print them out for your files or for your patients.
- Store all patient and examination data in a central seca database.
- Take the first step toward electronic medical records with EMR integrated.
- With the necessary security, thanks to simple user account management and access rights.



The seven modules for the analysis of measurement results can be compiled for each patient as needed and presented in an easy-to-read PDF document.

seca analytics mBCA 115

System requirements

- Supports operating systems:
Windows XP (SP3), Windows Vista (SP1),
Windows 7, Windows Server 2003 (SP2)
and Windows Server 2008 R1 (SP2)
- Processor: 1.2 GHz or higher
- Required available hard disk space:
minimum 1 GB
- Required available RAM:
minimum 512 MB RAM
- Peripherals: DVD drive
- Ports: For use with seca devices
USB 2.0 or serial interface (RS232)
- Monitor: 1024x768, High Color
(16-bit), 32-bit (recommended)



System compatible with all products in the seca 360° wireless system