Health Monitor GMON

„INDICATE Health Risks – RATE professionally – REACT prophylactically"

Explanation to Register Home/Pro BCM

Body composition provides an insight into important health indicators. Quantitative evidence of early indications of disease, the impact of changes in lifestyle or the success of preventative action can be obtained on the basis of these indicators. Body fat monitors make it possible to differentiate body composition (depending on the capacity profile of such monitors) using the principle of Bioelectrical Impedance Analysis (BIA).

According to the type of scale the following parameters are displayed in the register "Tanita Home/Pro BCM > Analysis": Body weight/Body Mass Index, body fat content and body fat mass, total body water, free fat mass, muscle mass (inclusive the Sarcopenic Index), phase angle, bone mass, physique rating, basal metabolic rate, daily caloric intake, visceral fat level, metabolic age. For children and adolescents (0 to 18 years), the information on body weight and height can be presented in relation to percentiles.

Furthermore, the following derived values can be determined:
Physique rating - verbal assessment of the body composition by evaluating the ratio of fat and muscle mass (description 1 - 9 or 11 - 69)
Basal Metabolic Rate (BMR) - required energy intake [in kcal or kJ] per day at complete rest,
Daily Caloric Intake (DCI) - required energy intake [in kcal or kJ] per day for the specified activity,
Visceral fat level - graduated assessment of abdominal fat,
Metabolic age - indicates the average age for the current body composition.

The instructions and safety information relating to the monitor used always apply.

Regular sportive activity influences the body composition. For customer with more than 10 hours of sport in the week and a rest pulse to 60 bpm, the **body type** should put on "athletic"!

Follow the basic rules below to obtain accurate and reproducible body composition measurements:

- Measurements are best taken in bare feet. If the soles of the feet are callous or if thin nylon stockings are worn this may affect the accuracy of the measurements. You can put 0.5 ml of water or salt water in the middle of each foot electrode.
- Measure when wearing the same clothes if possible (best naked or in underwear).
- Measure under the same conditions and at the same time of day.
- Measure when bladder empty.
- Do not measure straight after eating a large meal or excessive fluid intake.
- Fluctuations in water balance affect body fat percentage measurements.
- Take adequate rest after sport or strenuous activity.
- Do not measure after a sauna, taking a bath or swimming.
- The insides of the thighs should not touch while the measurement is being taken, hold a towel between them where appropriate. The same applies in the case of segmental measuring for arms and upper body.
- Keep electrodes clean using a disinfectant.

Bioelectrical Impedance Analysis (BIA): The electrical resistor of the body is measured by mean of a constant signal of an alternating current.

Overview about GMON modules
general operation instruction, using goals values, other relevant parameters for health
Index for GMON program

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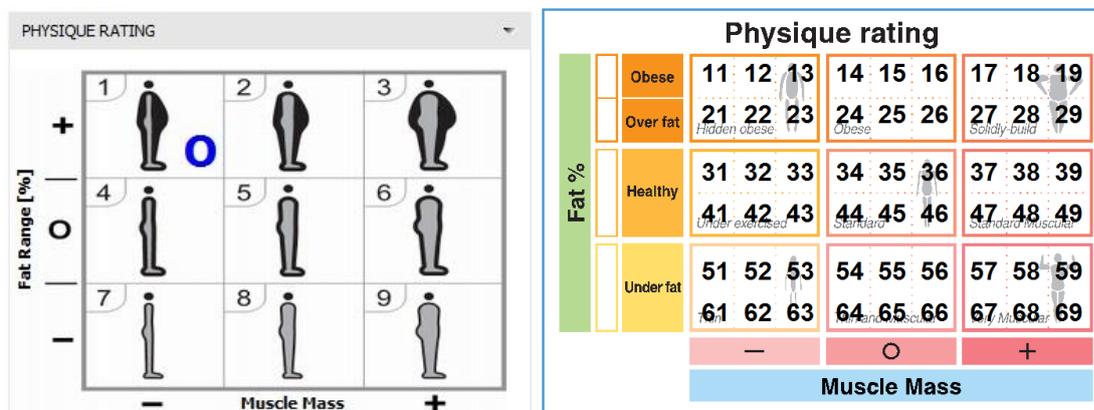## Explanation to Register Home/Pro BCM

Conversions kcal – kJ:

1 kcal	· 4,1840 =	1 kJ
1 kJ	· 0.2390 =	1 kcal

This conversion factor refers to the "thermochemical calorie" (National Bureau of Standards) and differs from the "International Table Calorie" (1 IT-kcal = 4.1868 kJ, Fifth International Conference on the Properties of Steam).

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Explanation of physique rating:

| Physique Rating		Explanation
result	detailed result	
1	11 – 13 or 21 – 23	Hidden obese
2	14 – 16 or 24 – 26	Obese
3	17 – 19 or 27 – 29	Solidly-built
4	31 – 33 or 41 – 43	Under exercised
5	34 – 36 or 44 – 46	Standard
6	37 – 39 or 47 – 49	Standard muscular
7	51 – 53 or 61 – 63	Thin
8	54 – 56 or 64 – 66	Thin and muscular
9	57 – 59 or 67 – 69	very muskular

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Evaluation by means of percentiles:

For children and adolescents (aged between 0 and 18 years), the evaluation of measured values with the signal colours green-yellow-red only serves as a rough orientation. Direct effects on the health situation cannot be directly deduced from this. To assess physical development, the data should be compared with the age- and gender-dependent percentile values. The percentile lines P3, P10, P25, P50, P75, p90 and P97 are available for this purpose. For example, if the measured value lies on line P25, 25% of all reference values are smaller than this measured value (and correspondingly 75% of all reference values are larger than this measured value).
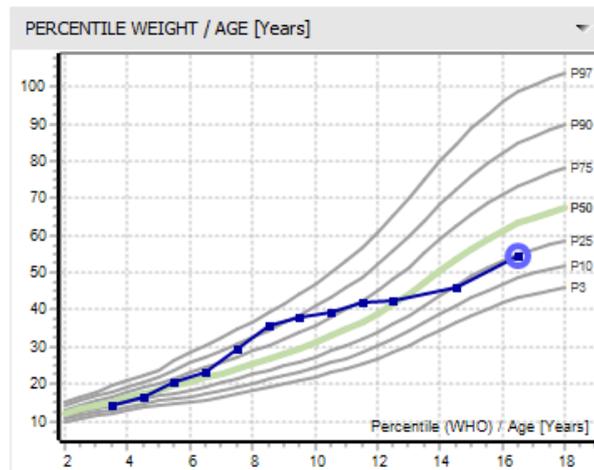
Data from the Robert Koch Institute (Germany) and the WHO (worldwide) are available as reference values. (Selection: Register "General" under master data):

[RKI 2013] Referenzpercentile für anthropometrische Maßzahlen und Blutdruck aus der Studie zur Gesundheit von Kindern und Jugendlichen in Deutschland (KiGGS), 2. Auflage, RKI-Hausdruckerei, Berlin 2013.

[WHO 2006] WHO Multicentre Growth Reference Study Group. WHO Child Growth Standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development. Geneva: World Health Organization, 2006.