

Bioelectrical Impedance Measurements

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WARNING

- Individuals with a Pacemaker or Other Internal Medical Device should not use the device

Software

- The software and drivers that are included with the device must be installed on the computer you will be using for the study
- The software is a one-computer-use license only
- Cost of additional licenses is \$449 per TANITA
- The device must be hooked up to a computer and ready to receive data as it is being used to upload the data into the software (it does not store data)

Accuracy

Recommended to measure under the following conditions:

- Obtain accurate height (cm)
- Ask participant to sit quietly before test and not use mobile devices
- 3 hours since waking or eating
- 12 hours since vigorous exercise or sauna
- Ask participant to urinate before measuring
- Not dehydrated

Accuracy (cont.)

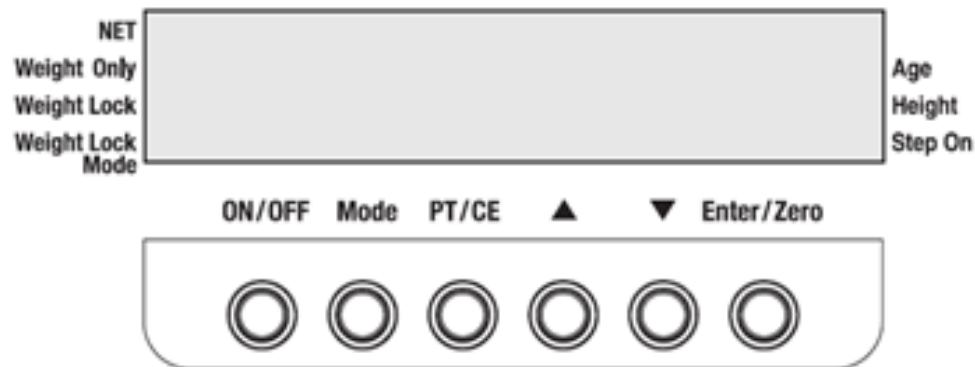
- No fever or in shock
- No alcohol consumption in 12 hours
- No excessive eating and drinking the day before measurement
- Avoid measurements during menstruation (females)
- Clean bottoms of feet if needed
- Must record amputation on form #132 and if double leg amputee cannot test

Preparation

- Perform device check prior to participant's arrival
- Place the BIA machine on a flat surface
 - Carpeted floor is not ideal
- Device must be plugged directly into wall outlet
 - Do not use a power strip
- Connect device to the computer with software open and ready to receive data
- Disinfect the scale platform after each use

TANITA Body Composition Analyzer

Names and Functions of Display Panel & Operation Keys



How to use the TANITA Body Composition Analyzer

- Press ON/OFF to turn on the power.
- Input the Clothes Weight as 1.0 kg (PT will be flashing) and press ENTER
- Using the UP and DOWN arrows:
 - Select Body Type and Gender and press ENTER
 - Enter Age in years and press ENTER
 - Enter Height in cm and press ENTER
- The arrow by STEP ON will flash indicating the body composition analyzer may be stepped on

How to use the TANITA Body Composition Analyzer (cont.)

- You will see the % Body Fat and Weight displayed
- Press the DOWN ARROW to see the BMI
- Press the DOWN ARROW to see the Total Body Water %
- Record these values on Form #132
- The value for line 13 (Impedance) as well as those above can be obtained from the TANITA program installed on your computer

Completion of Form #132

Output Data

Item	Header	format	kg / cm mode	Order of output				
				Body composition			Scale	BMI
				Adult	Athlete	Child		
Control data	{0		2 bytes fixed length	1	1	1	1	1
Control data	~0		1 byte fixed length	2	2	2	2	2
Control data	~1		1 byte fixed length	3	3	3	3	3
Control data	~2		1 byte fixed length	4	4	4	4	4
Model number	MO	"XXXXXX"	8 bytes fixed length ("SC-240")	5	5	5	5	5
Serial number	SN	"XXXXXXXX"	10 bytes fixed length	6	6	6	6	6
Body type	Bt	0 or 2	1 byte fixed length (0: Standard 2: Athletic)	7	7	7		
Gender	GE	1 or 2	1 byte fixed length (1: Male 2: Female)	8	8	8		
Age	AG	XX	1-2 bytes variable length	9	9	9		
Height	Hm	XXX.X	4-5 bytes variable length (cm)	10	10	10		7
Preset tare	PL	XXX.X	3-4 bytes variable length (increments 0.1 kg)	11	11	11	7	8
Body weight	Wk	XXX.X	3-5 bytes variable length (increments 0.1 kg)	12	12	12	8	9
Fat %	FW	XX.X	3-4 bytes variable length (increments 0.1%)	13	13	13		
Fat mass	FW	XXX.X	3-5 bytes variable length (increments 0.1 kg)	14	14	14		
FFM	MW	XXX.X	3-5 bytes variable length (increments 0.1 kg)	15	15	15		
Muscle mass	mW	XXX.X	3-5 bytes variable length (increments 0.1 kg)	16	16			
Muscle score	sW	XX	1-2 bytes variable length (1-24)	17	17			
Bone mass	bW	XXX.X	3-5 bytes variable length (increments 0.1 kg)	18	18			
Body water	ww	XXX.X	3-5 bytes variable length (increments 0.1 kg)	19	19			
Body water %	ww	XX.X	4 bytes fixed length (increments 0.1%)	20	20			
BMI	MI	XXX.X	3-5 bytes variable length (increments 0.1)	21	21	16		10
Ideal body weight	Sw	XXX.X	3-5 bytes variable length (increments 0.1 kg)	22				
Degree of obesity	OV	XXX.X	3-5 bytes variable length (increments 0.1%)	23				
Visceral fat rating	IF	XX	1-2 bytes variable length	24	22			
BMR (kJ)	rb	XXXXX	1-5 bytes variable length (increments 1 kJ)	25	23			
BMR (kcal)	rB	XXXXX	1-5 bytes variable length (increments 1 kcal)	26	24			
BMR score	rJ	XX	1-2 bytes variable length (1-24)	27	25			
Metabolic age	rA	XX	2 bytes fixed length	28	26			
Impedance (50 kHz)	ZF	XXXX.X	1-2 bytes variable length (4-55)	29	27	17	9	
Checksum	CS	XX	2 bytes fixed length	30	28	18	10	11

Completion of Form #132 (cont.)

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Form #132

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PVDOMICS STUDY

Bioelectric Impedance Assessment (BIA) - Form #132

Instructions: The Bioelectric Impedance Assessment (BIA) is a standing measurement device that measures body composition. PVDOMICS Study is using the Tanita SC-240 device. Review the detailed MOP Chapter 37 for specific instructions on how to complete the testing procedure.

You will need to ask the participant whether he/she has an implanted defibrillator or pacemaker or other mechanical implants of any kind, and if he or she does, do not do the test.

Do not do the test if the patient is a bilateral amputee.

Set the device to Standard or Athletic mode depending on overall body habitus. Have participant remove bulky clothes, cell phones, pagers to avoid variability in accuracy of weight. For clothes weight, input 1 kg as uniform estimate.

Note: Ideally, this test should be rescheduled for any of the following conditions, please refer back to MOP Chapter 37 for more information:

- Participant has exercised or taken a sauna within 12 hours
- Participant walked or eaten a large meal within 3 hours of the test
- Female participant is menstruating.

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1. Participant ID #

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2. Alpha
Code

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3. Date of BIA Measurement: dd/mm/yyyy

4. Was a standing BIA measurement performed?

1=Yes, test was completed for PVDOMICS Study (answer Q5-13)

2=No, wheelchair use only.

3=No, logistics problem related to the participant

4=No, medical contraindication/safety issue detected

5=No, logistic problem related to the PVDOMICS clinical site (e.g., staffing, scheduling)

6=No, participant refused

Completion of Form #132 (cont.)

Leg and Arm Amputations

5. a. Left (0=none, 1=below knee or elbow, 2=above knee or elbow)
b. Right (0=none, 1=below knee or elbow, 2=above knee or elbow)
6. Time of test (24 hr clock):.....
7. Device mode (1=Standard, 2=Athletic-see *Tanita SC-240 device manual*)
8. Standing measured height (cm)
9. Current weight (kg) measurement
(after removing bulky clothing and other items such as coins, phones, etc.)
10. Measured body fat (%)
11. Measured BMI..... .
12. Total body water (%)
13. Impedance (50 kHz)

200. Date this form completed (mm/dd/yyyy)...../...../.....

201. Username of study certified person who performed this test.....

Clinical Center Use Only

Date Form Entered (mm/dd/yyyy)...../...../.....

Username of person entering this form



QUESTIONS?