



## VISCAN<sup>™</sup>

MEASURES VISCERAL AND  
TRUNK FAT IN SECONDS

## VISCAN™ ACCURATE MEASUREMENTS IN SECONDS

High levels of visceral fat and trunk fat are scientifically proven to be linked to lifestyle diseases such as metabolic syndrome, type 2 diabetes and other lifestyle diseases however until now have been difficult and expensive to measure, especially in larger research studies or routine clinical practice.

Tanita has pioneered VISCAN, an innovative concept which directly measures visceral trunk fat and waist circumference using the latest Tanita BIA technology.

### VISCAN™ directly measures the abdominal region and instantly shows readings<sup>1</sup> for:

- Visceral fat level on a scale of 1 – 59 (0.5 graduation)
- Assesses visceral fat level using a 6-step bar-graph display from standard to excessive
- Trunk fat percentage: on a scale of 5.0 – 75.0% (0.1% graduation)
- Assesses trunk fat percentage: using a 9- step bar-graph display from low to high
- Estimated waist circumference: 50 – 130 cm (1 cm graduation)
- “Over 130cm Mode” allows measurement of subjects with a waist circumference of 130cm or greater.



## HOW VISCAN™ WORKS

A cleverly designed ‘electrode belt’ is placed on the bare midriff of the subject. The belt then uses Tanita Dual Frequency BIA technology to take the measurement and passes the reading via infra red to the base unit in just 30 seconds.

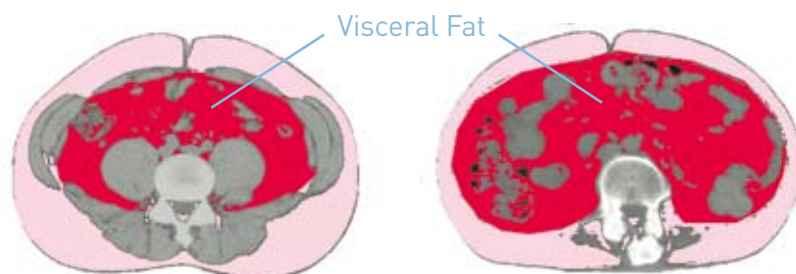
<sup>1</sup> Assessment of measurements are shown for subjects aged 18 years and above. For subjects under 18 years, measurements only are shown and can be used as reference data.

## HELPING YOU ACHIEVE RESULTS

VISCAN is specifically designed for a wide range of needs from large scale research projects to routine clinical practice.

- Convenient to work with disabled, critically ill and elderly patients
- Measurements are taken in under 30 seconds
- Easy to set up and use – no training required
- Highly accurate and repeatable results
- Minimal or no personal contact
- Lightweight and portable – supplied with handy carry/storage case

The diagrams below show a greater accumulation of visceral fat in an individual with a spinal-cord-injury compared to a healthy person. By using VISCAN the measurement error compared to tape measurement of waist circumference can be substantially reduced.



Male: Healthy subject (32 years old)  
 BMI 23.7 Waist circumference 84.0cm  
 Visceral fat area 97.7cm<sup>2</sup>

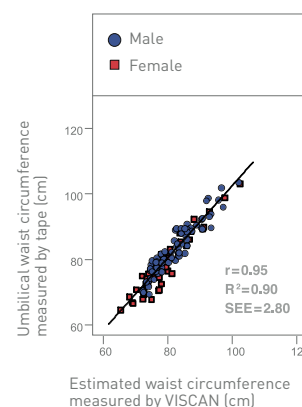
Male: Spinal-cord injury victim (35 years old)  
 BMI 23.7 Waist circumference 82.2cm  
 Visceral fat area 211.8cm<sup>2</sup>

## TANITA ACCURACY GUARANTEED

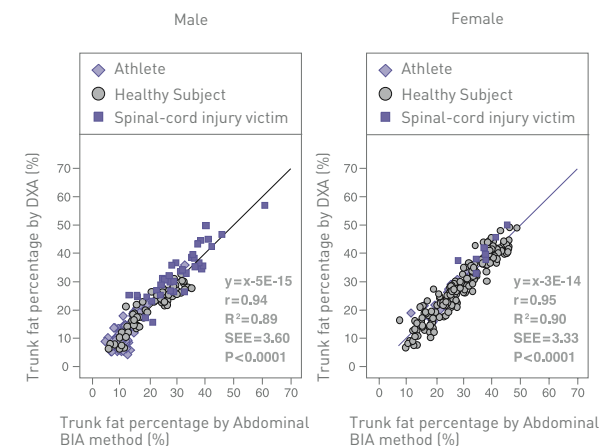
VISCAN estimates the waist circumference based on the fact that umbilical waist circumference (abdominal circumference) measured by tape is highly correlated with abdomen width. The positioning laser and sensors allow high reproducibility and reliability.

High levels of visceral fat and trunk fat are said to be closely correlated to the incidence of lifestyle-related diseases. They are statistically estimated using the abdominal BIA method and by analyzing the data obtained from the X-ray CT and DXA method (Double Energy X-ray Absorptiometry).

Correlation between "Umbilical waist circumference measured by tape" and "Estimated waist circumference measured by VISCAN"



Correlation between "Trunk fat percentage by DXA" and "Trunk fat percentage by Abdominal BIA method"



## VISCAN™ SPECIFICATIONS

### Base unit

Measurement method: near-infrared reflectance method  
 Measurement span: 20 – 48 cm  
 Battery: nickel metal-hydride battery  
 Power source: AC adapter: input 100 – 240 V; output 12 V, 2 A  
 Weight 2.6kg  
 External interface RS232C output (D-sub 9-pin female connector)  
 Operating temperature limit (storage temperature limit)  
 0 – 35°C D-10 – 60°C D

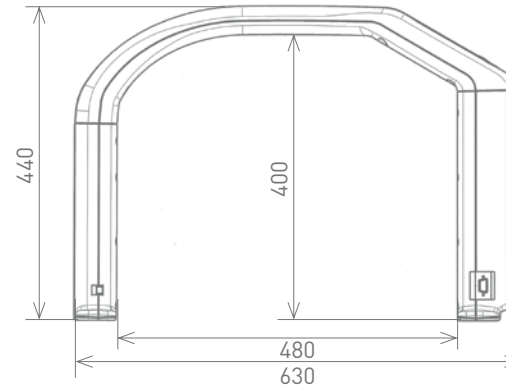
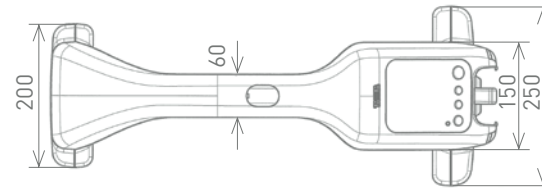
### Impedance Belt

Measurement method: 4-electrode type  
 Measurement frequency: 6.25 kHz, 50 kHz  
 Measurement range: 5 – 100 Ω  
 Power source: DC 6 V, AAA alkaline dry cell x 4  
 Weight: 0.5kg

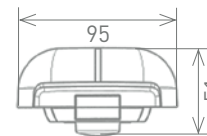
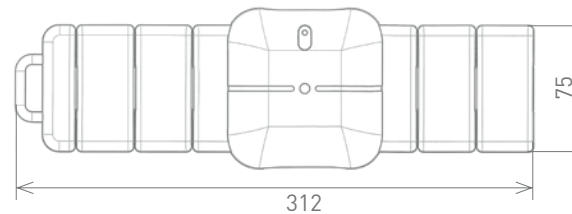
### Positioning laser

Light-emitting unit: visible-light semiconductor laser  
 Laser wavelength: 650 nm (red light)  
 Laser output: less than 1 mW  
 Beam size: at 200 mm distance, line length 200 mm or over,  
 line width less than 2 mm, point (approx.  $\varnothing$  1.5 mm)  
 in centrosphere  $\pm$  5 mm  
 Grade: Class 2M

Base Unit Dimensions (mm)



Impedance Belt Dimensions (mm)



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