Active Mobility

Medical Scales Glossary Guide

Active Mobility Systems was founded in 1995 with a commitment to sourcing innovative patient lifting and handling solutions for the Australian healthcare industry. To this end, we offer a broad range of weighing and measuring devices for hospitals, medical centres, GP surgeries and aged care facilities.

Active Mobility Systems has brought Marsden medical devices to the Australian market. Weighing scales from Marsden are one of the best weighing devices in their class. These reliable and accurate weighing devices are an essential tool for effective monitoring, diagnosis and treatment of patients. It is also paramount that the patient's physical size and level of mobility are accounted for in any weighing procedure.
Active Mobility Systems offers the Marsden range of Class III medical scales in configurations suitable for newborn babies through to bariatric care. Many of the Marsden scales, such as wheelchair scales or body composition scales, contain features that not everyone can understand.

We have decided to put together a glossary and create a guide that you can download and keep for quick reference. If there is any term that is not included in our Medical scales guide, please let us know.

Basal Metabolic Rate

Your Basal Metabolic Rate, is an estimate of how many calories you'd burn if you were to do nothing.

Put another way, your basal Metabolic Rate represents the minimum amount of energy needed to keep your body functioning - including the very basic stuff like breathing and having a beating heart.

Body Composition

Your Body Composition is the percentages of fat, bone, water and muscle in your body. Muscular tissue takes up less space in our bodies than fat tissue, so knowing these percentages, as well as your overall, is good for knowing how physically fit you are.

Body Fat Percentage

Body Fat Percentage is the total fat in your body, divided by your total body mass - giving you a figure that represents how much of your body consists of fat. It must be remembered that a percentage of body fat (2-5% in men, 8-12 % in women) is essential to keep your organs working and maintain the basic functions of your body.

Body Mass Index

Body Mass Index - or BMI as it's more commonly referred to - is a measure of your body fat, based on both height and weight. It's used for both men and women, generally from the age of 20 upwards.

Developed between 1830 and 1850, BMI is not seen as highly accurate measure of whether a person is over-weight or not - however due to its simplicity, it has come to be widely used for preliminary diagnosis.

As a guide, an ideal BMI is in the 18.5 to 24.9 range. If your BMI is 25 or more, you weigh more than is ideal for your height. If your BMI is below 18.5, you weigh less than is ideal for your height.

You can download our free BMI chart here : http://info.activemobility.com.au/blog/body-mass-index

Calibration Certificate

A Calibration Certificate is a record of when the last calibration check of a weighing scale took place, and helps with scale traceability - for example, when a scale is used in an area where weights are monitored, the calibration certificate will show if, over a given period of time, the scale has lost accuracy - and will provide a record of the errors in the readings, before it is recalibrated again.

Capacity

The capacity of a scale is the maximum amount of weight the scale can register. Scales are at risk of damage if they are loaded with weights greater than their capacity.

Class III Approved

Class III is the approval which makes a scale legal for use within medical environments. For monitoring, diagnosis and treatment of patients the scale must be Class III approved.

A directive, 2009/29/EC, was introduced in April 2009 to help with harmonising the rules which apply to weighing instruments. This directive was specifically put in place to help protect the public against the consequences of incorrect weighing results. In medical environments this can ensure accurate results are given, for example to make sure correct doses of medication are administered in correlation to a person's weight.

Declaration of Conformity

The Declaration of Conformity is the certificate to confirm your medical weighing device is Class III/medically approved.

Fat Free Mass

Fat Free Mass is your total body mass, without the fat. This reading will include everything - from skin, bones, ligaments and tendons, to organs and water. If you have a high level of Fat Free Mass it implies you have a healthy body frame, however, too much Fat Free Mass can be unhealthy.

Fat Mass

Fat Mass is an estimation of the amount of fat within your body - the opposite of the Fat Free Mass reading, if you like.

Graduation

Another essential specification to bear in mind when purchasing a scale (along with capacity), graduation denotes the increments in which a scale measures. For example, a weighing scale with graduations of 200g will display weight readings to the nearest 200g.

Hold

The Hold function of a weighing scale allows you to get an accurate weight reading without it fluctuating when the subject on the scale moves. Press the Hold button and the scale will calculate the average weight between the fluctuations, and hold it on the display.

Indicator

An indicator is the separate display unit found on column scales, and other scales that do not display the weight reading on a screen built into the structure of the scale.

In the Marsden range, some floor scales have an indicator separate to the scale, connected with a cable. See our M-540 as a good example.

LACORS

This stands for Local Authorities Coordinators of Regulatory Services. In 2008, LACORS set up the National Medical Weighing Project, after a series of studies the previous year had found some hospital staff using inaccurate or unsuitable scales to calculate dosages of medication for patients, including small children.

The follow-up report listed a number of recommendations to hospital trusts - one of these was that weighing scales for medical applications should have Class III approval or higher.
You can find out more about the LACORS report here: http://metricviews.org.uk/2009/12/nhs-risking-patients-lives-with-imperial-scales/

Medical Devices Directive

The Medical Devices Directive is the directive brought in to provide a harmonised environment for all medical equipment that is sold within the EU for diagnosing, treating and monitoring patients. Alongside the Class III approval guidelines (see Class III Approved), MDD approval provides a tighter control on the selling and use of medical weighing equipment.

Some medical weighing devices, like hoists, need to be both Class III Approved and MDD Approved. In the case of hoists, it's due to the fact that they elevate a patient off the ground, which could potentially create a risk to both the patient and the user.

Platform

The platform of a weighing scale is the base, which the user steps on to register a weight.

Pre-set Tare

Pre-set Tare allows unwanted weight to be removed from the reading on a scale, before the weight that needs to be read is placed on the scale.

As an example: A bed-bound patient is to be weighed using a bed weighing scale, however the weight of the bed needs to be excluded from the weight reading, so only the weight of the patient is displayed.

Pre-setting the Tare weight means the weight to be excluded is already taken into account when the bed is wheeled onto the bed weighing scale.

Tare

Tare weight is the unwanted weight on a scale - which, by using the Tare function, can be 'tared' off to leave just the necessary weight. Tare can also be explained like this:

Net weight (the weight of the goods/patient) = Gross weight (the total weight) - tare weight (the weight of the container/bed etc)

Telehealth

Telehealth is a solution for enhancing health care, public health and health education delivery and support using wireless technology - typically Bluetooth technology.

Telehealth solutions allow data to be transferred and recorded quickly, easily and securely by, for example, transmitting the weight reading of a weighing scale directly to a database on a computer.

Total Body Water

This is the amount of fluid in the body, expressed a percentage of your total body weight. This is typically 45-60% in healthy women, and 50-65% in healthy men.

Units

The Units a weighing scale measures in determine how the weight reading is displayed - typically, for example, lbs or kgs. In the UK, medical weighing devices can now only legally display weights in metric units - i.e g/kg.

Zero

The Zero function of a weighing scale allows you to return the weight reading on the display to zero - for example, if the scale is displaying a weight after the user has pressed Hold, and the scale now needs to be used to weight another patient.

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