



What is body composition analysis and why is it important?

Health practitioners universally agree that too much fat is a serious health risk and a risk factor for conditions such as hypertension, diabetes heart disease, gall bladder conditions and several other problems related to obesity. There is now an ongoing epidemic of obesity in children and adults that has highlighted the importance of measuring and understanding the implications of an individuals' body fat percentage for planning and setting short- and long-term health goals. An important part of understanding fat composition is differentiating between what is healthy and what is not and this can depend on the type and distribution of the fat in your body.

When it comes to body composition it is common to assume that having as little fat as possible is healthy: however, being thin does not *automatically* reduce one's health risk. Being thin refers to *weighing less* than a recommended value in age and height weight tables. Being *lean* is a different term and refers to the muscle and fat composition of that given weight. Being lean intrinsically indicates you have greater muscle mass than just being thin.

A healthy amount of muscle is an important measure of long-term health. Having sufficient muscle supports good posture, enhances mobility, prevents frailty in elderly life and contributes significantly to being well hydrated as muscles hold water far more than fat.

In addition, another important aspect of body composition is bone mass and in particular bone density. Bone density falls with age particularly after the menopause and weight bearing exercise produces small loading and stresses on the bones which causes them to remodel and maintain their strength. If both density is very low this is termed osteopenia and this can progress to osteoporosis putting patients at risk of fractures. Weight bearing exercise in conjunction with a healthy diet including calcium and vitamin D is an important part of a healthy lifestyle after the menopause so tracking bone density is also an important part of body composition. Bone density is usually measure using dual energy x-ray absorptiometry, known as a DEXA scan.

At Shilpa Dave health we use body composition analysis using a state-of-the-art Inbody™ body composition scanner. The measurement of body composition gives a unique insight into your overall health and far more information than your weight or body mass index (BMI). Body mass index is calculated by comparing the amount of weight to your height and is measured in kg/m². A BMI of 18-25 is recommended.

The measurement and interpretation of BMI as a tool to monitor health has many limitations and is quite a poor tracking tool if you are aiming to lose weight because it does not tell you whether your weight changes are due to changes in fat or muscle. You may be aware of the healthy weight ranges but if you simply try to lose weight you may end up losing muscle mass. By measuring body composition and differentiating between muscle and fat body composition this removes the guesswork of determining what your weight changes and fluctuations may be.

Body composition is the method of describing what the body is made of. It includes fat protein minerals and body water. It also describes weight more accurately and body composition analysis can accurately show changes in fat mass, muscle mass and body fat percentage. There is no consensus on what the best fat level is, but the normal body fat range provided by Inbody is set at 10 to 20% for males and 18 to 28% for females. Body composition is measured by what is known as bioelectric impedance analysis, which is the resistance of an electrical current through different tissues. Fat, bone water and muscle have different impedances and can be measured producing a detailed report of your body composition. In addition, the Inbody composition analysis can also determine the levels of body water, identify levels of visceral fat and perform segmental analysis looking at different areas of your body. The segmental analysis can be very useful if you have muscle imbalances or are recovering from injury where you wish to build up muscle in a particular group for example one leg. The more sophisticated Inbody scanners will also provide a measurement of bone density.

At Shilpa Dave health we use health screening as a key tool to benchmark patients' health and body composition analysis is a key part of this assessment. Book your health screen today

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