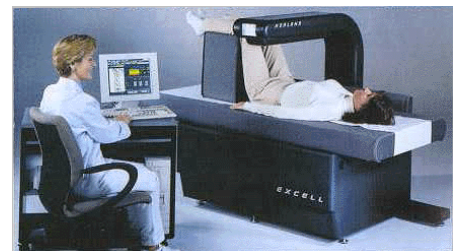


DEXA (Dual Energy X-ray Absorptiometry) - A relatively new technology that is very accurate and precise, DEXA is based on a three-compartment model that divides the body into total body mineral, fat-free soft (lean) mass, and fat tissue mass. This technique is based on the assumption that bone mineral content is directly proportional to the amount of photon energy absorbed by the bone being studied.

DEXA uses a whole body scanner that has two low dose x-rays at different sources that read bone and soft tissue mass simultaneously. The sources are mounted beneath a table with a detector overhead. The scanner passes across a person's reclining body with data collected at 0.5 cm intervals. A scan takes between 10-20 minutes. It is safe and noninvasive with little burden to the individual, although a person must lie still throughout the procedure.

DEXA is fast becoming the new "gold standard" because it provides a higher degree of precision in only one measurement and has the ability to show exactly where fat is distributed throughout the body. It is very reliable and its results extremely repeatable; in addition, the method is safe and presents little burden to the subject. Although this method is not as accurate in measuring the extremely obese and the cost of equipment is high, DEXA is quickly moving from the laboratory setting into clinical studies.

The dose of x-ray that the person is exposed to is significantly lower than a traditional x-ray, and is approximately 1/10 of the exposure they would receive during a chest x-ray. The scanner itself consists of a table and an overhead scanner that passes along the length of the body. This makes it suitable for individuals who normally get claustrophobic with other procedures.



The following chart shows the classification of body fat percentage ranges for each gender.

Gender	Normal	Overweight	Obese
Adult Male	5-25%	25-30%	>30%
Adult Female	12-29%	29-35%	>35%