

## WOMEN'S DIGITAL IMAGING USES DXA TO CLARIFY WEIGHT AND FITNESS GOALS



As women get older, bone loss becomes a common problem. In my practice, I began using dual energy X-ray absorptiometry (DXA) to image bone loss, a common problem in women as they age. A simple software package has enabled me to use DXA to determine total body fat in patients who want an accurate method to establish goals and measure results for weight management and fitness programs. I can usually conduct both studies in the same visit.

Alternate methods of determining body composition are useful, but they are not as accurate. While body mass index (BMI) is still widely used, it is considered outdated. BMI has approximately a 5 percent error rate predicting the percentage of body fat, and it does not distinguish muscle from fat.

Skinfold measurements, such as the pinch test, only measure subcutaneous fat. In research and academic trials, underwater weighting is used to measure body density and fat. However, in clinical practice, such a method is not practical and no one would even think of suggesting to patients that they be placed in a capsule and "dunked."

DXA analysis measures the percentage of lean muscle, fat tissue mass, bone mineral density, and bone mineral content in the body and specific regions, such as trunk, arms, legs, and pelvis. Knowing the ratio of fat to lean body mass helps patients determine how to reshape their bodies correctly. For example, if a patient weighs 150 lbs. with 10 percent fat, the body consists of 15 lbs. of fat and 135 lbs. of lean body mass. With these measurements, a patient knows precisely how much fat she can lose. DXA analysis also shows patients the specific regions where they have to make changes. They receive a report showing a graphic visual image with their body outline and type. The report can be a wake-up call that motivates them into action. Subsequent DXA studies measure how successfully they are making the necessary changes.

A DXA scan is easy and comfortable for patients; they simply lie still for 15 minutes. Low dose X-rays that measure bone and soft tissue mass are read by a scanner passing over the patient. The exam shows the exact fat distribution throughout the body.

Excess body fat, particularly around the abdomen, is linked to many diseases and conditions, such as type II diabetes, high blood pressure, stroke, heart problems, and some cancers. Even too little body fat carries health risks, particularly for women. A proper amount of body fat is necessary for reproduction.

Patients for total body fat analysis generally fall into four groups: the overweight; serious athletes and fitness buffs; patients suffering from diseases such as chronic renal failure or HIV; and young women with anorexia.

Patients are using DXA before and after gastric bypass surgery and at the beginning and midway through diet and exercise programs to accurately gauge results. Personal trainers use total body fat analysis to assess clients' success and make changes to training regimens. DXA is helping nutritionists guide patients with anorexia back to developing a healthy body and self image.

Patients who are serious about becoming healthier benefit from the precise results of a DXA total body fat composition scan. They may be able to get a general idea of their problem from the tools available at their gym or physician's office. But the accuracy and visual picture provided by a DXA scan can make the difference in patients' success or failure on the path to developing a healthier body.

- Lisa R. Weinstock, MD, is founder and breast imaging specialist at Women's Digital Imaging of Ridgewood, N.J., a practice dedicated to detecting and diagnosing conditions that affect women. Direct questions and comments to [editorial@rt-image.com](mailto:editorial@rt-image.com).

### **About Women's Digital Imaging of Ridgewood**

Women's Digital Imaging is a private practice led by Dr. Lisa Weinstock, specializing in detecting and diagnosing conditions that affect women including breast cancer, gynecologic diseases and osteoporosis. WDI gives patients the accuracy of the most advanced diagnostic technology including Digital Mammography and Breast Specific Gamma Imaging, and exceptional care from compassionate, highly trained personnel.

Dr. Weinstock founded WDI in 2004 and now has over 3,000 patients. She completed a fellowship in Breast Imaging at Columbia Presbyterian University Medical Center and a four-year residency in Diagnostic Radiology at Hackensack University Medical Center. She was an intern in Anatomic Pathology at Montefiore Medical Center and attained her M.D. from the SUNY-Health Sciences Center of Brooklyn.

For more information about Women's Digital Imaging of Ridgewood, visit [www.womensdigital.com](http://www.womensdigital.com) or contact Dr. Weinstock at 201/444-4484.