Dual-energy X-ray Absorptiometry (DXA, previously DEXA) is performed to measure the strength, density and mineral content of bone. DXA is most often used to diagnose osteoporosis, a condition that often affects women after menopause but may also be found in men. Osteoporosis involves a gradual loss of calcium, as well as structural changes, causing the bones to become thinner, more fragile and more likely to break.

DXA is also effective in tracking the effects of treatment for osteoporosis and other conditions that cause bone loss. DXA can also assess an individual’s risk for developing fractures.

Dual-energy X-ray absorptiometry is strongly recommended if you:

- Are a post-menopausal woman and not taking estrogen
- Have a personal or maternal history of hip fracture or smoking
- Are a post-menopausal woman who is tall (over 5 feet 7 inches) or this (less than 125 pounds)
- Are a man with clinical conditions associated with bone loss
- Use medications that are known to cause bone loss
- Have type one diabetes, liver disease, kidney disease or a family history of osteoporosis
- Have high bone turnover, which shows up in the form of excessive collagen in urine samples
- Have a thyroid condition
- Have a parathyroid condition
- Have experienced a fracture after only mild trauma
- Have had x-ray evidence of vertebral fracture or other signs of osteoporosis

Preparations

You should wear comfortable, loose-fitting clothing on the day of your Dual-energy X-ray absorptiometry (DXA, previously DEXA) exam. On the day of the DXA exam you may eat normally. You should not take calcium supplements for at least 24 hours before your exam.

You may be asked to remove all jewelry, removable dental appliances, eye glasses and any metal objects or clothing that might interfere with the x-ray images. Inform your radiologist of any health conditions, recent illnesses or allergies prior to your bone densitometry exam. Women should always inform their radiologist if there is any chance they could be pregnant.