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How to prepare patients for Bone Density Scanning

In response to several inquiries, we are writing to inform you of the protocols for bone density scanning at our facility.

When patients call they are directed to our website. They can find it by searching for Spruce Street Osteoporosis Center. There they will find information about osteoporosis as well as our protocols. Patients can print out our forms so that they are ready for their appointment.

If patients do not have internet access we have a telephone protocol that gives them the information they need.

The test takes about twenty minutes. We ask patients if they require extra help or time, and schedule accordingly. We do not do bone density scanning on women who may be pregnant or on children. Bone density testing of children (less than 18 years of age) is complicated by growth rates, maturity and size. The only facility in our area qualified to perform and interpret bone density scans on children is Children's Hospital. If appropriate, we supply the phone number.

Patients have the option of wearing comfortable clothes without metal fasteners or changing into a gown. Patients should not take their calcium pills the day of the exam and they must wait 72 hours after a barium enema or radiographic study with contrast material to do a bone density scan.

When patients arrive for their appointment, our technician introduces herself and obtains their height and weight. We ask patients to complete a questionnaire (which can be downloaded from our website); it includes the indication for the exam, prior exams, medications, and risk factors for osteoporosis such as family history, exercise, calcium and vitamin D intake, tobacco and alcohol use, history of fractures, etc. We review the questionnaire with the patient, and obtain clarification if necessary.

Patients are then asked to change into a gown, or if dressed in appropriate clothing, asked to lie on the bone density table.

DXA (dual energy x-ray photometry) scanning uses low energy radiation that passes through the spine, hip, and if appropriate, wrist. The radiation exposure during a bone density scan is less than 5% of that of a chest x-ray.

Two evaluable sites are required, and at least 2 vertebrae if the spine is one of those. Where vertebrae need to be excluded, for example due to degenerative changes that falsely elevate bone density of the spine; or if there is not an evaluable hip, wrist bone density is done. The wrist is also scanned if the patient has a history of hyperparathyroidism. If patients weigh more than 300 pounds, we can only perform bone density testing of the wrist.

If the spine is osteoporotic, or if the height of vertebral bodies is reduced with an increased bone density – features suggestive of compression fracture – vertebral fracture assessment (VFA) is obtained. In this view, the lateral spine is visualized from the lumbar to the thoracic vertebrae to evaluate for compression deformities.

After the patient dresses and leaves, the scan is interpreted by one of our physicians, all of whom are certified by the International Society of Clinical Densiometry (ISCD): Dr. Hillary Browne, Dr. Amy Maiocco or Dr. Sheila Ling.

The patient is sent the cover letter and an information sheet with sources of calcium and vitamin D, both food sources and supplements, as well as a separate page explaining T-scores and outlining the National Osteoporosis Foundation (NOF) guidelines for treatment.

Referring clinicians are sent the letter and a complete copy of the scan.