

DEXA Bone Density Scans

How to prepare for the test and questions about bone mineral loss

What is a DEXA scan?

A DEXA scan (Dual Energy X-ray Absorptiometry) is a special type of X-ray used to measure the mineral content of bones. A decrease in bone minerals may increase a person's risk of bone fracture. The test measures the density in the bones of the entire body, focusing on the spine and hips.

A DEXA test is more sensitive than ordinary X-rays so it can help diagnose low bone density or bone loss at an early stage. DEXA uses X-rays, therefore the child does receive a small amount of radiation. However, the amount of radiation used in a DEXA scan is very low, less than the amount of radiation you get in one day just living on Earth.



Why does my child need a DEXA scan?

Your health-care provider has recommended a DEXA scan because your child has one or more risk factors for having low bone density. Knowing that your child has decreased bone

density at an early stage can help prevent further problems. It will also allow your health-care provider to recommend treatments and activities to help increase bone density.

Some of these risk factors for decreased bone density in young people include:

- Long-term oral steroid use (as when used in cancer treatment)
- Not getting enough calcium
- Not getting enough exercise
- Osteoporosis in your family
- Thin body and small bone frame
- Fair skin (Caucasian or Asian race)

How do I prepare my child?

The day of the test, do not give your child any calcium supplements. Food with calcium, such as milk, is OK to drink. Make sure your child has not had any contrast or barium studies within 2 weeks prior of the DEXA scan. The contrast and barium interfere with the results of the test. Remove all metal on your child including any jewelry and belt buckles. Dress your child in comfortable clothes **without zippers or snaps**. Sweats are a good choice but we will provide clothes to change into if needed.

If your child needs anesthesia, you will receive more instructions from the nurse practitioner the day before the scan.

Please make other arrangements for siblings. We have a sibling playroom at Children's, but you may want to call ahead for their hours.

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How do we check in for the appointment?

Arrive 30 minutes before your scheduled appointment. Please try to be on time as being late can affect other appointments and can delay your appointment. If you will be late, please call Radiology at (206) 987-2133. Check in at the 4th floor registration desk inside the Whale entrance. After you complete registration, you will be directed to the Radiology reception area.

What happens during the bone density scan?

At the Radiology reception desk, you will be asked to fill out a form and list all of your child's current medicines. The technologist will lead you and your child to the DEXA area. It is a small room and one parent can stay with the child unless your child is under anesthesia.

Your child will lie on a padded table and the detector will pass over the patient for the scan. The machine does not touch the patient and there is no pain. The child must lie very still for these pictures. The test is usually completed in 30 to 45 minutes.

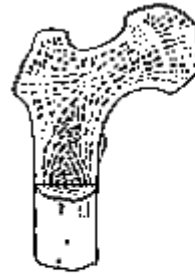
What happens after the test?

There are no special instructions for your child to follow after the bone density scan. Results of the test will be given to the doctor who ordered the scan within 24 hours.

What is decreased bone mineral density?

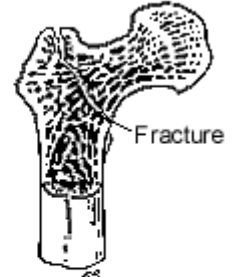
When bone mineral density is decreased, the inside of the bones becomes porous (see the picture to the right). Over time, this weakens the bones and may make them more likely to break.

Normal bone



Close-up view

Bone with osteoporosis



Close-up view

How can we keep our bones strong?

The best ways to keep bones strong and prevent decreased bone mineral density include:

- Exercise – especially weight bearing exercise like running, walking and dancing
- Eat a well balanced diet
- Get plenty of calcium
- Avoid smoking
- Drink alcohol in moderation
- Limit excessive amounts of carbonated drinks like soda

How much calcium do I need?

The Food and Nutrition Board of the National Academy of Sciences recommends daily dietary calcium intake as listed on the next page:

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Recommended Calcium Intakes*

Children and Adolescents - Ages	Calcium (Daily)
1 through 3 years	500 mg
4 through 8 years	800 mg
9 through 18 years	1,300 mg
Adult Women and Men - Ages	Calcium (Daily)
19 through 49 years (men and women)	1,000 mg

*Latest data: 1997

It is usually best to try to get calcium from food. Non-fat and low-fat dairy products are good sources of calcium. Other sources of calcium include broccoli, tofu and calcium-fortified orange juice.

TO LEARN MORE

- Radiology (206) 987-2133
- Your Child's Health-Care Provider

Children's will make this information available in alternate formats upon request. Please call the Family Resource Center at (206) 987-2201.

This handout has been reviewed by clinical staff at Children's Hospital. However, your child's needs are unique. Before you act or rely upon this information, please talk with your child's health-care provider.