



## Pediatric -Bone Scan

### **What is a bone scan?**

- A bone scan is a non-invasive imaging technique that uses a radioactive substance to visualize the bones, showing cell activity in the bone.
- A radiopharmaceutical is injected into your child's veins. Once the radioactive substance has travelled through the bloodstream and into your child's bones, a special camera, called a gamma camera, is used to take pictures.

### **When might a bone scan be needed?**

A bone scan can help assess:

- back pain
- bone infection
- occult fracture(s)
- stress fractures and stress injuries
- unexplained bone pain
- cancer
- damage to the bones due to exercise or trauma
- mandibular hypertrophy/hyperplasia
- osteoid osteoma
- avascular necrosis

### **How should I prepare my child for a bone scan?**

There is no special preparation needed for this test.

- It is helpful to give your child a simple explanation as to why a bone scan is needed and assure him or her that you will be with him or her for the entire time.
- You may want to bring your child's favorite book, toy or comforting object to use during waiting times or in the imaging room.
- We have various DVDs to choose from for your child to watch during the procedure or you can bring one from home.

Between the injection of the radiopharmaceutical and the scan, there is a 2.5 hour delay. In addition, the scan time is approximately one hour. Please schedule your day accordingly.

### **What should I expect when I bring my child to the clinic for a bone scan?**

When you arrive, please go to the front desk. A clinic coordinator will check in your child and verify his or her registration information.

### **What happens during a bone scan?**

A bone scan involves three steps: injection of the radiopharmaceutical, a waiting period and the bone scan.

Injection of the radiopharmaceutical:

- You will be greeted by one of our nuclear medicine technologists who will explain to you and your child what will happen during the study.
- A tiny amount of the radiopharmaceutical will be injected into one of your child's veins by a small needle.

Waiting period:

- You and your child will be free to leave the department and then return 2.5 hours later for the actual imaging. The technologist will give you an exact time to return for imaging. While waiting, your child can conduct normal activities, including eating and drinking.

- It is important for your child to try to drink extra fluids during the waiting time in order to promote bladder emptying at the time of imaging.

The bone scan:

- When you return, your child will be asked to void/empty their bladder.
- Your child may be asked to change into a gown and will need to remove jewelry and any metal objects that could interfere with the scan.
- Your child will lie on the table and a large camera will be positioned above and underneath him/her.
- The camera does not make any loud noises and may move slowly around your child's body as pictures are taken.
- Your child may be asked to move into different positions in order for the bones to be viewed from different angles.
- It is important that your child remains still during the imaging in order to obtain the best quality images possible. If he/she moves, the images won't be as clear and we'll need to redo the pictures.

The number of images obtained and the total imaging time will vary depending on the diagnosis under consideration, although the average imaging time is about 30 – 45 minutes.

### **Will my child feel anything during a bone scan?**

Your child may experience some discomfort associated with the insertion of the intravenous needle. The needle used for the procedure is small. Once the radiopharmaceutical is injected, the needle is withdrawn and a Band-Aid is placed over the site of the injection. Your child may be a little sore in the area where we give the injection.

Although the camera used to take pictures may appear large and intimidating, it does not touch your child.

### **Is a bone scan safe?**

We are committed to ensuring that your child receives the smallest radiation dose needed to obtain the desired result.

It is safe to be in the room with your child the entire time, even if you are pregnant or nursing.

- Nuclear medicine has been used on babies and children for more than 40 years with no known adverse effects from the low doses employed.
- The radiopharmaceutical contains a very tiny amount of radioactive molecules, but we believe that the benefit to your child's health outweighs potential radiation risk.
- The camera used to obtain the images does not produce any radiation.

### **What happens after the bone scan?**

Once the bone scan is complete, the images will be evaluated for quality by a nuclear medicine physician. If the scan is adequate, your child will be free to leave and resume normal activity.

The small amount of the radioactive substance in your child's body will dissipate over the first 24 hours following the test and pass out of your child's body through urine or stool. Drinking plenty of water will help to flush the radioactive material from your child's body.

### **How do I learn the results of the bone scan?**

The nuclear medicine physician will provide a report to the doctor who ordered your child's bone scan. Your child's doctor will then discuss the results with you.

## **Brampton Nuclear Services**

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