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# **GUIDE**

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## **White blood cell imaging (WBC scan)**



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The Ottawa | L'Hôpital  
Hospital | d'Ottawa



### ***Disclaimer***

*This is general information developed by The Ottawa Hospital. It is not intended to replace the advice of a qualified health-care provider. Please consult your own personal physician who will be able to determine if this information is appropriate for your specific situation.*

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Your doctor has requested a white blood cell scan. This booklet will answer some of the questions you may have.

## ***What is a white blood cell scan?***

A white blood cell scan helps us to detect abscesses and infection in soft tissue or bone or to detect fever of unknown origin. You might have heard your doctor mention a *WBC* scan. This is just another name for a white blood cell scan.

## ***Do I need to prepare for the scan?***

No special preparation is required. Food and drink will not interfere with this test.

## ***What is involved?***

There are typically four visits to the Nuclear Medicine department to complete this test. On your first visit the technologist will take a sample of your blood by placing a needle in your arm. A specially trained technologist will then separate your white blood cells and attach a small amount of radioactivity to them. This process takes approximately two hours to perform. During this time you can leave the department and you will be given a time to return. When you return the technologist will inject your labeled white blood cells in a vein in your arm. You will then be given a time to return later the same day, approximately four hours after the injection. When you return, you will be asked to remove all external metal from the area to be scanned and lie onto our imaging table. The technologist will then use a special large camera, called a *gamma camera* to take pictures of your whole body or just specific areas of interest. These pictures will take approximately 30 minutes to complete. In some cases the technologist may then take

another set of images called a SPECT/CT study. These images are taken by rotating the gamma camera around your body to create many images of a particular area of your body. You will then be given a time to return the following morning for delayed images. After these images are completed, you may also need to do a bone scan.

### ***Will it hurt?***

The pinprick of the injection needle may hurt a bit. You may have had a blood test in the past. This is much the same.

### ***Is the radiation dangerous?***

The amount of radioactivity used for this test is quite small and will disappear by itself soon after the scan is finished. (Most of the radioactivity disappears within one day and any remaining traces disappear within one week.) The amount of radiation is similar to that from an x-ray examination.

### ***Do I need to do anything after the scan?***

No special precautions are needed after the scan. If you are travelling across any borders in the seven days after your scan, please ask us for further advice. Ports and airports have very sensitive radiation detectors which may pick up tiny amounts of radioactivity remaining after your scan. We will give you a letter that you can show to customs officials at ports or airports.

### ***What happens to the results of the scan?***

A specially trained doctor will examine the pictures. This is normally done soon after the end of the scan. A report is then sent to the doctor who asked us to do the scan. Your doctor will normally receive the report within one week.

## ***Is there anything I should tell the staff before the scan?***

Yes, if you are pregnant or think you may be pregnant, please telephone us to let us know. Also, please telephone us if you are breastfeeding.

## ***What if I have more questions?***

We want your visit to be as pleasant as possible. If you have any questions, please ask the staff in the Nuclear Medicine department. You can telephone before your test day, or ask before the scan starts. **Our telephone number is 613-761-4831, option 8.**

