



WHOLE BODY SCREENING USING MRI OR CT TECHNOLOGY

The Issue

Some private clinics are now offering healthy people a service called whole body screening. For a fee, they will use sophisticated medical technology to scan your body for anything abnormal. If you are considering this procedure, you should be aware that whole body screening poses a number of health risks and offers no proven health benefits.

Background

MRI stands for Magnetic Resonance Imaging and uses a strong static magnetic field and radio-frequency energy to generate images. CT, or Computerized Tomography, uses numerous X-ray images, which are reconstituted into computer-generated images. These advanced technologies produce images that give specialists a look inside the body. MRI and CT examinations are also called diagnostic imaging studies.

In Canada, imaging studies are done after a licenced health professional has examined the patient and determined that the procedure is necessary to make a diagnosis. These MRI or CT scans are directed to examine the affected area of the body and are performed by a certified radiation technologist. A licenced radiologist interprets the findings.

When MRI and CT scans are used for diagnosis in patients who have symptoms, or for monitoring treatment in patients with a medical condition, there is ample evidence that the benefits outweigh the risks. However, there is no scientific evidence to recommend these

procedures if you have no symptoms of illness.

Health Risks Associated with Whole Body Screening

Whole body screening poses a number of risks. The strength of the magnetic field used in MRIs can make metallic implants, such as pacemakers, metal pins or clips, move and tear soft tissue. MRIs may also cause biological effects, including the electrical stimulation of nerves, and the heating of implanted metallic leads, which may cause serious burns. Also, the magnetic field in a MRI scanner can magnetize nearby objects, which can become dangerous projectiles in an examination room.

Whole body CT screening exposes you to radiation levels that are 500 to 1000 times as high as those of a routine chest X-ray, and increases your risk of developing radiation-induced cancer.

If you are healthy with no symptoms of illness, whole body screening will likely result in either a normal report or show suspicious findings. You should understand that normal findings could leave you with a false sense of reassurance, as many diseases cannot be diagnosed using these technologies. This may cause you to ignore symptoms of illness in the future, which in turn might delay treatment.

You should also be aware that



suspicious findings can be an indication of illness, or they can be abnormalities that are not harmful to your health. Either way, suspicious findings often lead you to more tests, possibly including the use of surgery, drugs, anesthesia and radiation. These tests, treatments and procedures, which are possibly unnecessary, could put you at further risk.

At present, there is no evidence to suggest that whole body screening of healthy people will detect a serious disease earlier than traditional methods, or alter the outcome of disease in any beneficial way.

In addition, whole body screening uses expensive human and technical resources, which should be channeled to patients who are ill and in need of medical care.

Minimizing Your Risk

If you are healthy and have no symptoms of illness, there is no reason to put yourself at risk by having MRI or CT whole body screening. If you have symptoms of illness, consult your health care professional to determine whether you need any specific diagnostic tests. Health Canada recommends that no diagnostic imaging procedure take place without prior clinical evaluation and a written referral by a health professional.

Health Canada's Role

Health Canada regulates the importation and sale of medical devices and radiation emitting devices in Canada through the Food and Drugs Act, the Radiation Emitting Devices Act, and the Medical Devices Regulations. These Acts and Regulations assure the safety and effectiveness of these devices when they are used in the manner for which they are licenced. No device licence has been issued to manufacturers of MRIs and CT machines for whole body screening.

Need More Info?

For additional information, contact:
Medical Devices Bureau,
Health Canada
Room 1605,
Statistics Canada Main Building
Tunney's Pasture
Ottawa, ON K1A 0L2
Telephone: (613) 957-4786

and/or

Consumer and Clinical Radiation
Protection Bureau, Health
Canada
775 Brookfield Road Ottawa,
Ontario K1A 1C1
Telephone: (613) 954-6699

For additional information on
x-rays please see the following
It's Your Health articles:

Occupational Exposure to
Radiation
[http://www.hc-sc.gc.ca/
english/iyh/environment/
exposure.html](http://www.hc-sc.gc.ca/english/iyh/environment/exposure.html)

Diagnostic X-rays and Pregnancy
[http://www.hc-sc.gc.ca/english/
iyh/medical/x_rays.html](http://www.hc-sc.gc.ca/english/iyh/medical/x_rays.html)

You can also find information
about whole body screening on
the United States Food and Drug
Administration (FDA) Web site at
[http://www.fda.gov/cdrh/ct/
index.html](http://www.fda.gov/cdrh/ct/index.html)

Additional It's Your Health articles
can be found at:
www.healthcanada.ca/iyh
You can also call (613) 957-2991