

Help with this leaflet:



If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or patient.information@addenbrookes.nhs.uk



We are currently working towards a smoke free site. Smoking is only permitted in the designated smoking areas.

For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169

Nuclear Medicine

Patient Information

Radiation Risk

Document history

Authors	Helen Rose
Department	Cambridge University Hospitals NHS Foundation Trust, Hills Road, Cambridge, CB2 0QQ www.cuh.org.uk
Contact number	01223 217342
Publish/Review date	January 2010/ January 2012
File name	Radiation_risk
Version number/Ref	1/PIN2548

What is the leaflet about?

The leaflet is to help patients understand the risk of radiation exposure from a nuclear medicine diagnostic test.

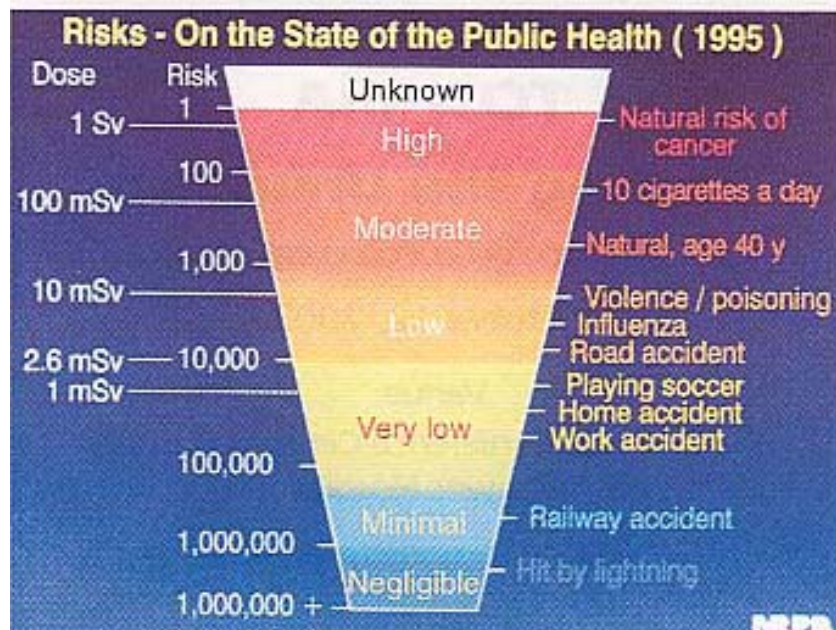
Benefits of nuclear medicine tests

Nuclear medicine procedures are very safe. Your doctor should have discussed the test you are having with you, and will have considered the benefits of having or not having the investigation, before sending us your referral form. However, if you have any questions at all, please do not hesitate to ask us.

Risks from radiation

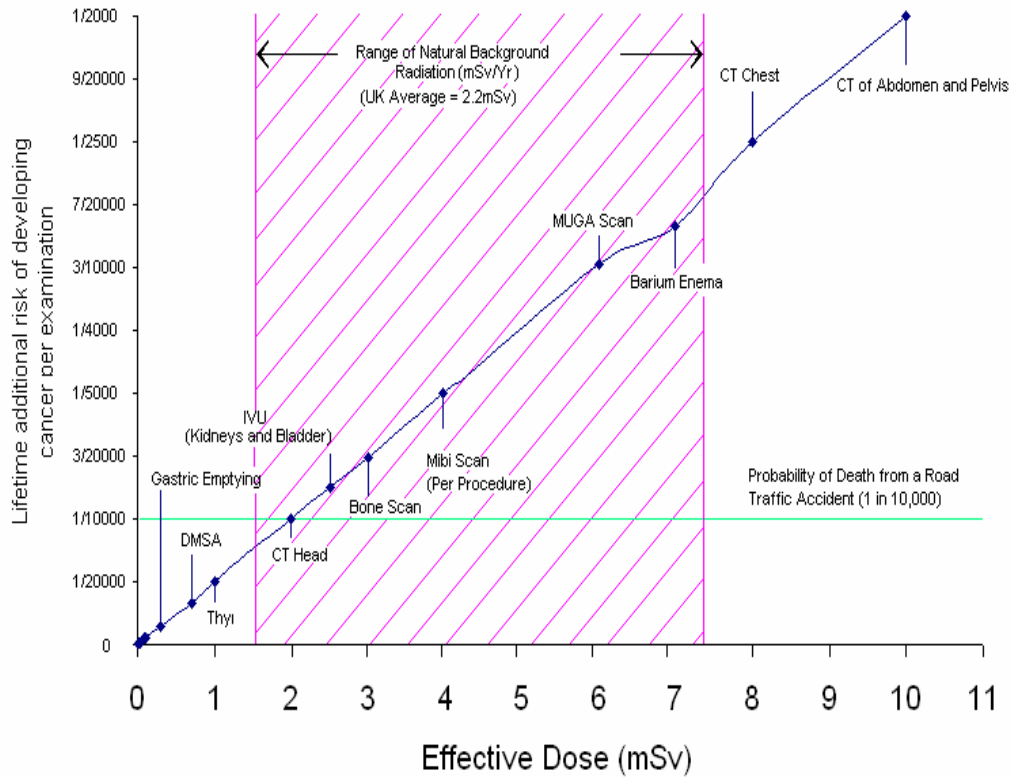
Everyday we live with all types of risk; this could be from travelling by road, rail or air, smoking a cigarette or using an electrical appliance. There is even a risk from radiation depending on where we live.

The Health Protection Agency advise shows that there is a 1 in 10,000 chance of dying from a road traffic accident and this is considered very rare. The chart below illustrates this alongside other types of risk.



References/ Sources of evidence

- Health Protection Agency formerly NRPB;
<http://www.hpa.org.uk>
- British Nuclear Medicine Society
<http://www.bnms.org.uk>
- Notes for Guidance on the Clinical Administration of Radiopharmaceuticals and Use of Sealed Radioactive Sources.



Exposure to any type of radiation increases the risk of getting cancer. This includes naturally occurring radiation. Radiation dose (an amount of radiation) is measured in 'milliSieverts' (usually abbreviated to 'mSv') and we naturally receive between 1.5mSv and 7.5mSv from the sun and our surroundings, depending on where we live. This is known as the average level of annual background radiation. As a guide this is shown as the shaded area on the graph overleaf. The amount of radiation we can give in hospital tests is regulated by radiation protection authorities. We evaluate and test each radiation exposure and give the minimum amount to produce an effective test result. We give substantially less than our colleagues in the USA.

Your test

Nuclear medicine uses radioactivity to help diagnose and treat medical conditions. Risk from diagnostic doses is usually very low, for example a thyroid scan has an 'effective dose' of 1mSv which gives a predicted lifetime risk of developing a cancer by 1 in 20,000. The chart overleaf identifies the radiation dose received from some Nuclear Medicine and X-rays tests. If you are concerned and/or your test is not identified we will be happy to discuss this with you when you attend for your test and provide an exact value. Alternatively, see contact details on back page.