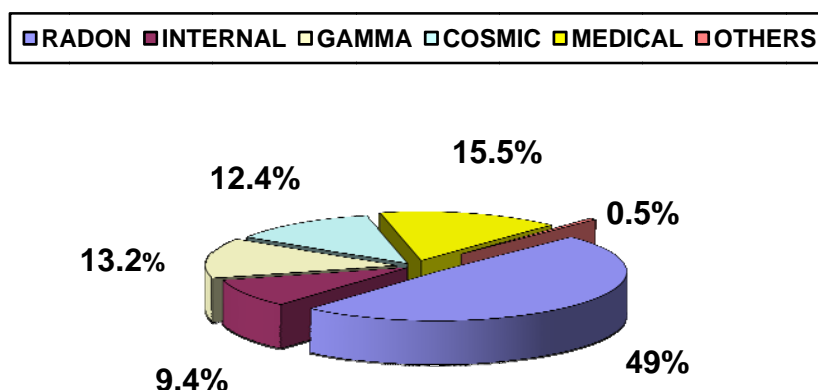


Background Radiation 2005

The average level of natural background radiation in the United Kingdom is **2.23 mSv per year** coupled with artificial exposures this gives an overall average background population exposure of **2.65 mSv/person/year**. This is from the latest review of the data from the Radiation Protection Division of Health Protection Agency.



Average annual dose from sources of background radiation in the UK

Source	Average annual dose/person (μSv)
Natural - cosmic	330
- gamma (external)	350
- internal (ingested)	250
- radon (inhaled)	1,300
Artificial - medical	410
- occupational	6
- fallout	6
- waste disposal	0.9
- consumer products	0.1
Total	2,653

Putting doses in perspective

Air flights: return to Spain 15 μSv (5 hours); return to New York 100 μSv (15 hours).

Food: K-40 in all foods -165 $\mu\text{Sv}/\text{y}$; 100g of brazil nuts – 4 μSv (Ra-226); 80g jar of mussels – 4 μSv (from Po-210).

Medical Exposures

Chest x-ray: 8,300,000 procedures/year with an average dose of 0.02mSv.

CT chest scan: 200,000 procedures/year with an average dose of 8mSv.

Barium enema: 360,000 procedures/year with an average dose of 7.2mSv.

PTCA (coronary procedure): 22,440 procedures/year with average dose of 15.1mSv.