



Working in a nuclear power station
for 1 year you would receive the same
radioactive dose as

DRINKING 2900 PINTS OF BEER

The average British drinker consumes 1,100 pints
of beer per year.
This is equivalent to 3 pints per day



10 WRIST X-RAYS

Wrist fractures are the most common arm fracture in
older adults estimated 2.4 to 10 per 1000 people per
year.

A DAYTRIP TO CORNWALL

A 3 day holiday to St. Ives would cause you to receive
0.118 mSv of radiation



335 CUPS OF COFFEE

The average coffee drinker consumes two 227-
284ml cups of coffee each day.

4 TRIPS TO IBIZA

A round trip to Ibiza would cause you to receive
more



References:

ABBAS, A.A., IBRAHIM, A.M.K., KADHIM, M.J., 2015, MEASUREMENT OF RADIONUCLIDES IN IMPORTED COFFEE CONSUMED IN BASRA SOUTHERN OF IRAQ AND ESTIMATION OF ITS ANNUAL EFFECTIVE DOSE. BASRA: BAGHDAD SCIENCE JOURNAL. B. SKWARZEC, D. I. STRUMISSKA, A. BORYO, J. FALANDYSZ, 2004. INTAKE OF ²¹⁰PO, ²³⁴U AND ²³⁸U RADIONUCLIDES WITH BEER IN POLAND. (JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, VOL. 261, NO. 3 (2004) 661N663). GDANSK: UNIVERSITY OF GDANSK.

THE BREWERS OF EUROPE, 2020, EUROPEAN BEER TRENDS: STATISTICS REPORT 2020 [ONLINE]. AVAILABLE FROM: [HTTPS://BREWERSOFEUROPE.ORG/UPLOADS/MYCMS-FILES/DOCUMENTS/PUBLICATIONS/2020/EUROPEAN-BEER-TRENDS-2020.PDF](https://brewersofeurope.org/uploads/mycms-files/documents/publications/2020/european-beer-trends-2020.pdf)

RADIOLOGYINFO, 2021. RADIATION DOSE TO ADULTS FROM COMMON IMAGING EXAMINATIONS. DOSE REFERENCE CARD [ONLINE]. AVAILABLE FROM: [HTTPS://WWW.ACR.ORG/-/MEDIA/ACR/FILES/RADIOLOGY-SAFETY/RADIATION-SAFETY/DOSE-REFERENCE-CARD.PDF](https://www.acr.org/-/media/ACR/files/radiology-safety/radiation-safety/dose-reference-card.pdf)

MEYER H.R., EFFECTS OF COSMIC RADIATION ON AIRCREW. AVAILABLE FROM: EXISTING DATA [HTTPS://WWW.ARPANSA.GOV.AU/UNDERSTANDING-RADIATION/RADIATION-SOURCES/MORE-RADIATION-SOURCES/FLYING-AND-HEALTH](https://www.arpansa.gov.au/understanding-radiation/radiation-sources/more-radiation-sources/flying-and-health) [ACCESSED 13 DECEMBER 2021]

BAILEY S., AIRCREW RADIATION EXPOSURE. AVAILABLE FROM: [HTTP://WWW2.ANS.ORG/PUBS/MAGAZINES/NM/DOCS/2000-1-3.PDF](http://www2.ans.org/pubs/magazines/nm/docs/2000-1-3.pdf) [ACCESSED 13 DECEMBER 2021]

MEIER M.M. ET AL, 2020, RADIATION IN THE ATMOSPHERE—A HAZARD TO AVIATION SAFETY?. MDPI.

FEDERICO C.A. ET AL, EFFECTS OF COSMIC RADIATION IN AIRCRAFTS: A DISCUSSION ABOUT AIRCREW OVER SOUTH AMERICA, 2012, JOURNAL OF AEROSPACE TECHNOLOGY AND MANAGEMENT. AVAILABLE FROM: [HTTP://WWW.JATM.COM.BR/PAPERS/VOL4_N2/JATMV4N2_P219-225_EFFECTS_OF_COSMIC_RADIATION_IN_AIRCRAFTS_A_DISCUSSION_ABOUT_AIRCREW_OVER_SOUTH_AMERICA.PDF](http://www.jatm.com.br/papers/vol4_n2/jatmv4n2_p219-225_effects_of_cosmic_radiation_in_aircrafts_a_discussion_about_aircrew_over_south_america.pdf)

CARIG MODELLING SOFTWARE: [HTTPS://WWW.FAA.GOV/DATA_RESEARCH/RESEARCH/MED_HUMANFACS/AEROMEDICAL/](https://www.faa.gov/data_research/research/med_humanfacs/aeromedical/)

AVERAGE DOMESTIC HOLIDAY LENGTH OF 3.34 DAYS

STATISTA, 2019, AVERAGE DOMESTIC HOLIDAY TRIP LENGTH IN ENGLAND FROM 2010 TO 2018 [ONLINE]. LONDON: VISITBRITAIN. AVAILABLE FROM: [HTTPS://WWW.STATISTA.COM/STATISTICS/297354/AVERAGE-DOMESTIC-HOLIDAY-TRIP-LENGTH-IN-ENGLAND](https://www.statista.com/statistics/297354/average-domestic-holiday-trip-length-in-england) [ACCESSED 3 DECEMBER 2021]

DOSE COEFFICIENT: 6.7 X 10⁻⁶ MSV BQ⁻¹H-1M⁻³

ICRP, 2018. SUMMARY OF ICRP RECOMMENDATIONS ON RADON. OTTAWA: INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION.

RADON DOSE FORMULA

ICRP, 2019, CALCULATING RADON DOSES [ONLINE]. OTTAWA: INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION. AVAILABLE FROM: [HTTP://ICRPAEDIA.ORG/CALCULATING_RADON_DOSES](http://icrpaedia.org/calculating_radon_doses) [ACCESSED 3 DECEMBER 2021]

UK RADON LEVELS

UK HEALTH SECURITY AGENCY, 2007, UK MAPS OF RADON [ONLINE]. LONDON: UK HEALTH SECURITY AGENCY. AVAILABLE FROM: [HTTPS://WWW.UKRADON.ORG/INFORMATION/UKMAPS](https://www.ukradon.org/information/ukmaps) [ACCESSED 3 DECEMBER 2021]

HEALTH AND SAFETY EXECUTIVE, 2017, OCCUPATIONAL EXPOSURE TO IONISING RADIATION, LONDON, HSE.



These everyday activities have the equivalent radioactive dose as living within 1 km of a nuclear power station for:

DRINKING BEER FOR A YEAR

The average British drinker consumes 1,100 pints of beer per year. This is equivalent to 3 pints per day. Each pint is equivalent to 3 hours living near a nuclear power station!



4 MONTHS
17 DAYS

36
DAYS



WRIST X-RAY

Wrist fractures are the most common arm fracture in older adults estimated 2.4 to 10 per 1000 people per year.

HOLIDAY TO CORNWALL

A 3 day holiday to St. Ives would cause you to receive more radiation than nearly 4 years living near a power station



3 YEARS
8 MONTHS

2 YEARS
2 MONTHS



DRINKING COFFEE FOR A YEAR

The average coffee drinker consumes two 227 - 284ml cups of coffee each day. One coffee is equivalent in dose to 1 day!

TRIP TO IBIZA

You would receive more radiation during your flights than you would living near a power station for almost 100 days.



97
DAYS

References:

ABBAS, A.A., IBRAHIM, A.M.K., KADHIM, M.J., 2015, MEASUREMENT OF RADIONUCLIDES IN IMPORTED COFFEE CONSUMED IN BASRA SOUTHERN OF IRAQ AND ESTIMATION OF ITS ANNUAL EFFECTIVE DOSE. BASRA: BAGHDAD SCIENCE JOURNAL. B. SKWARZEC, D. I. STRUMISSKA, A. BORYO, J. FALANDYSZ, 2004. INTAKE OF ²¹⁰Pb, ²³⁴U AND ²³⁸U RADIONUCLIDES WITH BEER IN POLAND. (JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, VOL. 261, NO. 3 (2004) 661-663). GDANSK: UNIVERSITY OF GDANSK.

THE BREWERS OF EUROPE, 2020, EUROPEAN BEER TRENDS: STATISTICS REPORT 2020 [ONLINE]. AVAILABLE FROM: [HTTPS://BREWERSOFEUROPE.ORG/UPLOADS/MYCMS-FILES/DOCUMENTS/PUBLICATIONS/2020/EUROPEAN-BEER-TRENDS-2020.PDF](https://brewersofeurope.org/uploads/mycms-files/documents/publications/2020/european-beer-trends-2020.pdf)

RADIOLOGYINFO, 2021. RADIATION DOSE TO ADULTS FROM COMMON IMAGING EXAMINATIONS. DOSE REFERENCE CARD [ONLINE]. AVAILABLE FROM: [HTTPS://WWW.ACR.ORG/-/MEDIA/ACR/FILES/RADIOLOGY-SAFETY/RADIATION-SAFETY/DOSE-REFERENCE-CARD.PDF](https://www.acr.org/-/media/ACR/files/radiology-safety/radiation-safety/dose-reference-card.pdf)

MEYER H.R., EFFECTS OF COSMIC RADIATION ON AIRCREW. AVAILABLE FROM: EXISTING DATA [HTTPS://WWW.ARPANSA.GOV.AU/UNDERSTANDING-RADIATION/RADIATION-SOURCES/MORE-RADIATION-SOURCES/FLYING-AND-HEALTH](https://www.arpansa.gov.au/understanding-radiation/radiation-sources/more-radiation-sources/flying-and-health) [ACCESSED 13 DECEMBER 2021]

BAILEY S., AIRCREW RADIATION EXPOSURE. AVAILABLE FROM: [HTTP://WWW2.ANS.ORG/PUBS/MAGAZINES/NN/DOCS/2000-1-3.PDF](http://www2.ans.org/pubs/magazines/nn/docs/2000-1-3.pdf) [ACCESSED 13 DECEMBER 2021]

MEIER M.M. ET AL, 2020, RADIATION IN THE ATMOSPHERE-A HAZARD TO AVIATION SAFETY?. MDPI.

FEDERICO C.A. ET AL, EFFECTS OF COSMIC RADIATION IN AIRCRAFTS: A DISCUSSION ABOUT AIRCREW OVER SOUTH AMERICA, 2012, JOURNAL OF AEROSPACE TECHNOLOGY AND MANAGEMENT. AVAILABLE FROM: [HTTP://WWW.JATM.COM.BR/PAPERS/VOL4_N2/JATMV4N2_P219-225_EFFECTS_OF_COSMIC_RADIATION_IN_AIRCRAFTS_A_DISCUSSION_ABOUT_AIRCREW_OVER_SOUTH_AMERICA.PDF](http://www.jatm.com.br/papers/vol4_n2/jatmv4n2_p219-225_effects_of_cosmic_radiation_in_aircrafts_a_discussion_about_aircrew_over_south_america.pdf)

CARIG MODELLING SOFTWARE: [HTTPS://WWW.FAA.GOV/DATA_RESEARCH/RESEARCH/MED_HUMANFACS/AEROMEDICAL/](https://www.faa.gov/data-research/research/med_humanfacs/aeromedical/)

AVERAGE DOMESTIC HOLIDAY LENGTH OF 3.34 DAYS

STATISTA, 2019, AVERAGE DOMESTIC HOLIDAY TRIP LENGTH IN ENGLAND FROM 2010 TO 2018 [ONLINE]. LONDON: VISITBRITAIN. AVAILABLE FROM: [HTTPS://WWW.STATISTA.COM/STATISTICS/297354/AVERAGE-DOMESTIC-HOLIDAY-TRIP-LENGTH-IN-ENGLAND](https://www.statista.com/statistics/297354/average-domestic-holiday-trip-length-in-england) [ACCESSED 3 DECEMBER 2021]

DOSE COEFFICIENT: 6.7 X 10⁻⁶ MSV B0-1H-1M-3

ICRP, 2018. SUMMARY OF ICRP RECOMMENDATIONS ON RADON. OTTAWA: INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION.

RADON DOSE FORMULA

ICRP, 2019, CALCULATING RADON DOSES [ONLINE]. OTTAWA: INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION. AVAILABLE FROM: [HTTP://ICRPAEDIA.ORG/CALCULATING_RADON_DOSES](http://icrp.aedia.org/calculating_radon_doses) [ACCESSED 3 DECEMBER 2021]

UK RADON LEVELS

UK HEALTH SECURITY AGENCY, 2007, UK MAPS OF RADON [ONLINE]. LONDON: UK HEALTH SECURITY AGENCY. AVAILABLE FROM: [HTTPS://WWW.UKRADON.ORG/INFORMATION/UKMAPS](https://www.ukradon.org/information/ukmaps) [ACCESSED 3 DECEMBER 2021]

HEALTH AND SAFETY EXECUTIVE, 2017, OCCUPATIONAL EXPOSURE TO IONISING RADIATION, LONDON, HSE.