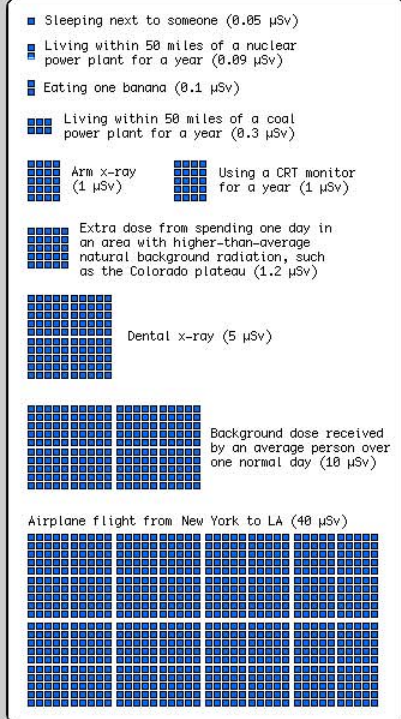


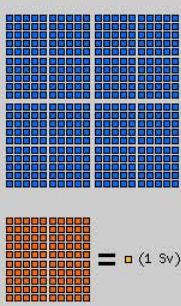
Radiation Dose Chart

This is a chart of the ionizing radiation dose a person can absorb from various sources. The unit for absorbed dose is "sievert" (Sv), and measures the effect of radiation will have on the cells of the body. One sievert (all at once) will make you sick, and too many more will kill you, but we safely absorb small amounts of natural radiation daily. Note: The same number of sieverts absorbed in a shorter time will generally cause more damage, but your cumulative long-term dose plays a big role in things like cancer risk.



■ Using a cell phone (8 µSv)—a cell phone's transmitter does not produce ionizing radiation* and does not cause cancer.
* Unless it's a bananaphone.

■ = (0.05 µSv)

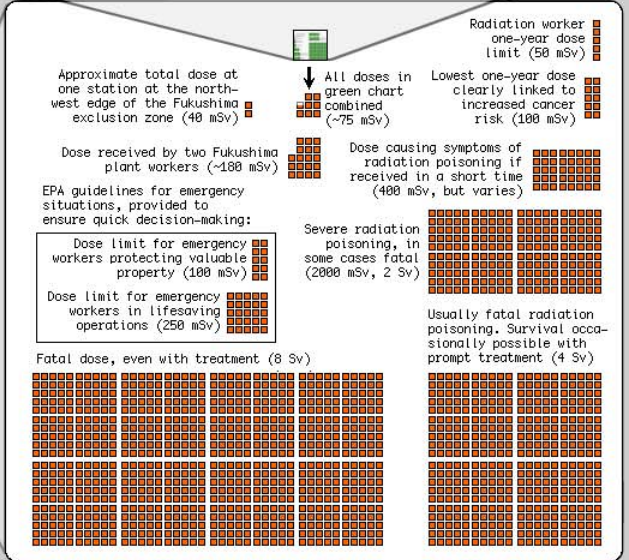
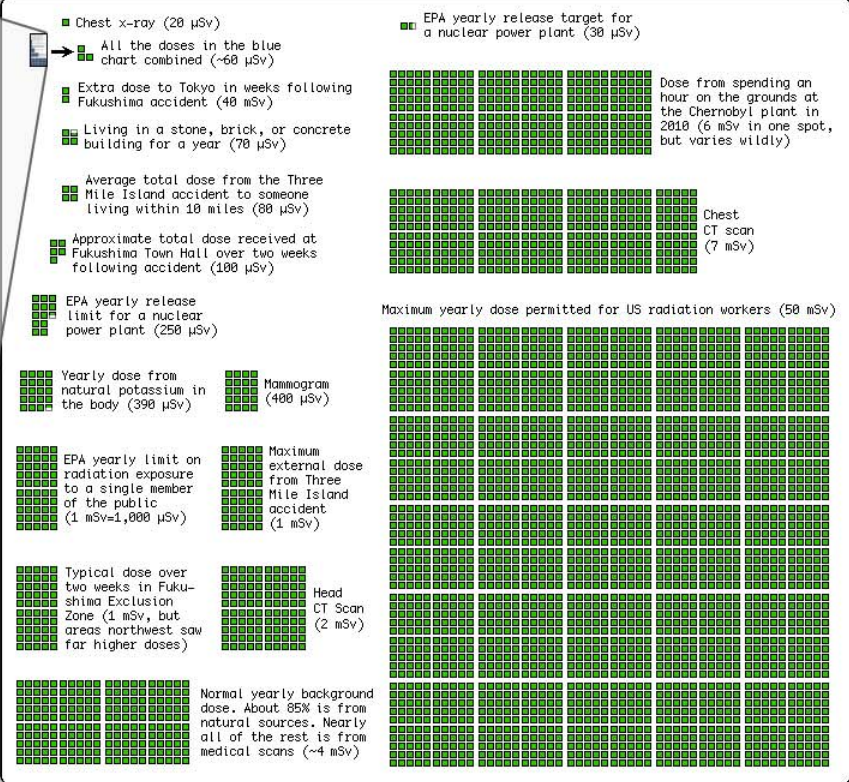


Ten minutes next to the Chernobyl reactor core after explosion and meltdown (50 Sv)

Sources:

- <http://www.nrc.gov/reading-rm/doc-collections/cfr/part020/>
- www.nema.ne.gov/technological/dose-limits.html
- http://www.deq.idaho.gov/inl_oversight/radiation/dose_calculator.cfm
- http://www.deq.idaho.gov/inl_oversight/radiation/radiation_guide.cfm
- <http://mitnse.com/>
- http://www.bnl.gov/bnlweb/PDF/0358R/Chapter_8.pdf
- http://dels-old.nas.edu/dels/rpt_briefs/rtrr_final.pdf
- <http://people.reed.edu/~emcanis/radiation.html>
- <http://en.wikipedia.org/wiki/Sievert>
- <http://blog.vornaskotti.com/2010/07/15/into-the-zone-chernobyl-prigpyat/>
- <http://www.nrc.gov/reading-rm/doc-collections/fzact-sheets/tritium-radiation-fs.html>
- http://www.mext.go.jp/component/a_menu/other/detail/_icsfiles/a1e1dfile/2011/03/18/1303727_1716.pdf
- <http://radiology.sna.org/content/240/1/254>

Chart by Randall Munroe, with help from Ellen, Senior Reactor Operator at the Reed Research Reactor, who suggested the idea and provided a lot of the sources. I'm sure I've added in lots of mistakes; it's for general education only. If you're basing radiation safety procedures on an internet PNG image and things go wrong, you have no one to blame but yourself.



I waive all copyright to this chart and place it in the public domain, so you are free to reuse it anywhere with no permission necessary. (However, keep in mind that I am not a radiation expert, and this chart is intended for general public informational use only.)