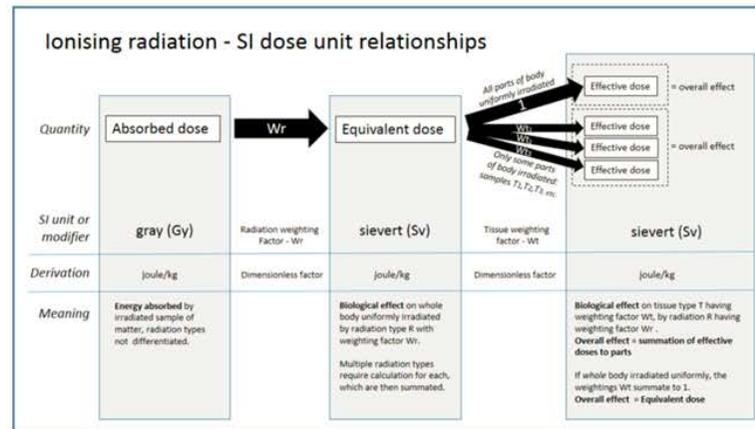


Astronaut radiation career limits

Sec 2.6



Astronaut radiation limits – short and long term

Space agency	Gender	Age at first exposure (yr)			
		30	35	45	55
NASA (USA)	Female	0.47	0.55	0.75	1.1
	Male	0.62	0.72	0.95	1.5
JAXA (Japan)	Female	0.6	0.8	0.9	1.1
	Male	0.6	0.9	1.0	1.2
ESA		1.0	1.0	1.0	1.0
FSA (Russia)		1.0	1.0	1.0	1.0
CSA (Canada)		1.0	1.0	1.0	1.0

Maximum "safe" days in deep space at solar min

Age	NASA 2005	NASA 2010 Avg. U.S.	NASA 2010 Never-Smokers
<i>Males</i>			
35	158	140 (186)	180 (239)
45	207	150 (200)	198 (263)
55	302	169 (218)	229 (297)
<i>Females</i>			
35	129	88 (120)	130 (172)
45	173	97 (129)	150 (196)
55	259	113 (149)	177 (231)

Ref: Cucinotta, Chappell and Kim, 2011

Radiation doses in different missions (SPE excluded)

