

Supplementary Materials

Table S1. Thyroid Absorbed Dose Coefficients for ^{125}I and ^{131}I

Nuclide	Intake route	Material type (model parameter)	Thyroid absorbed dose coefficients (Sv/Bq)					
			Infant (3 mo)	1 yr	5 yr	10 yr	15 yr	Adult
^{125}I	Inhalation	Aerosols (AMAD = 1 μm , F type)	1.69×10^{-7}	2.09×10^{-7}	1.82×10^{-7}	1.25×10^{-7}	8.87×10^{-8}	7.74×10^{-8}
		Gas or vapour (SR-1)	3.95×10^{-7}	4.79×10^{-7}	4.72×10^{-7}	3.18×10^{-7}	2.47×10^{-7}	2.07×10^{-7}
	Ingestion	Total diet ($f_A=1$)	4.35×10^{-7}	5.27×10^{-7}	5.19×10^{-7}	3.50×10^{-7}	2.72×10^{-7}	2.28×10^{-7}
^{131}I	Inhalation	Aerosols (AMAD = 1 μm , F type)	7.10×10^{-7}	7.80×10^{-7}	5.12×10^{-7}	2.70×10^{-7}	1.67×10^{-7}	1.17×10^{-7}
		Gas or vapour (SR-1)	1.66×10^{-6}	1.79×10^{-6}	1.33×10^{-6}	6.89×10^{-7}	4.64×10^{-7}	3.14×10^{-7}
	Ingestion	Total diet ($f_A=1$)	1.82×10^{-6}	1.96×10^{-6}	1.46×10^{-6}	7.56×10^{-7}	5.10×10^{-7}	3.44×10^{-7}

AMAD, activity median aerodynamic diameter; F type, absorption from respiratory tract model of F type; SR-1, Class SR-1 gases (soluble and reactive gases and vapours); f_A , fractional uptake in alimentary tract model.

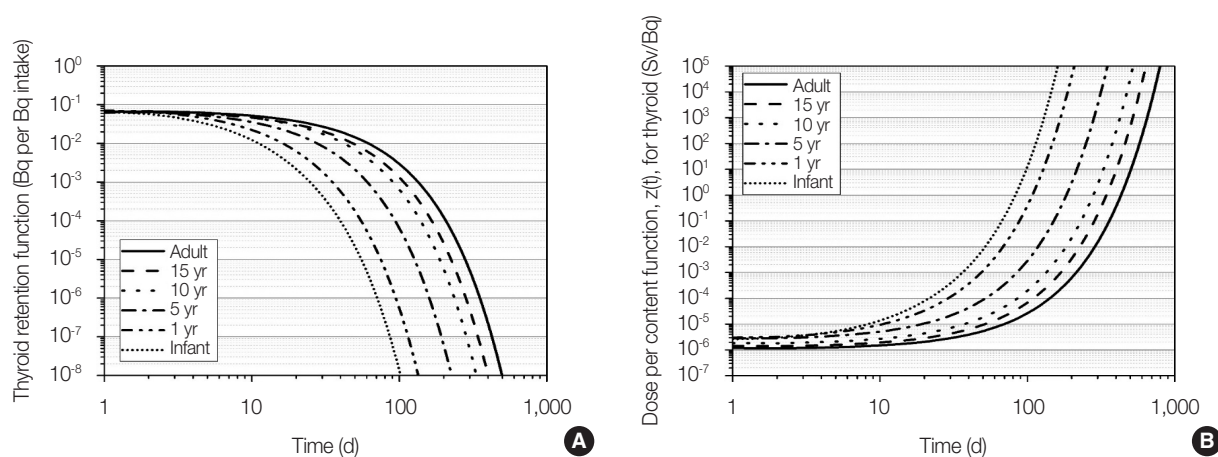


Fig. S1. Thyroid retention functions (A) and dose per content functions (B) for thyroid measurement of inhaled ^{125}I (Aerosols, AMAD = 1 μm , F type). AMAD, activity median aerodynamic diameter; F type, absorption from respiratory tract model of F type.

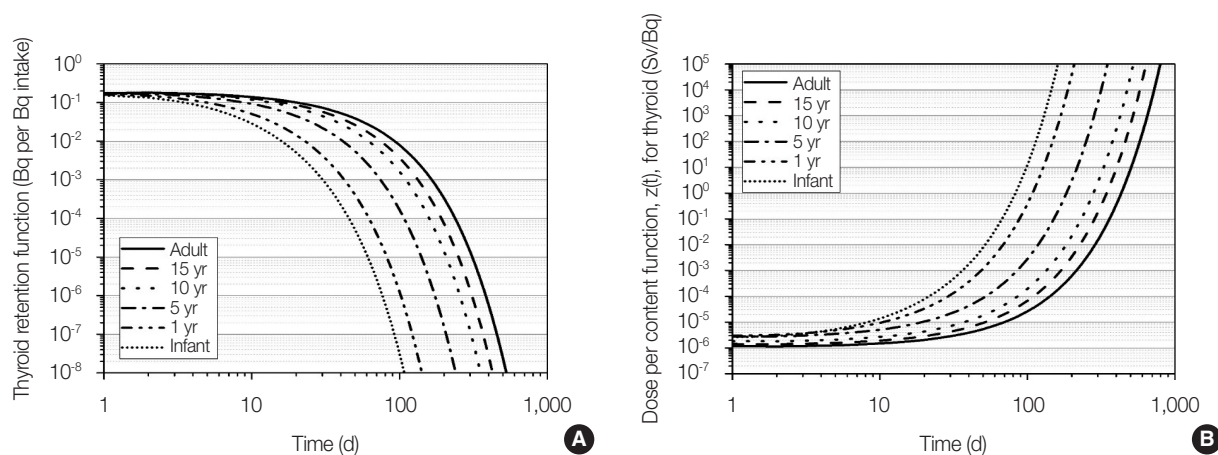


Fig. S2. Thyroid retention functions (A) and dose per content functions (B) for thyroid measurement of inhaled ^{125}I (Gas or vapour, SR-1). SR-1, Class SR-1 gases (soluble and reactive gases and vapours).

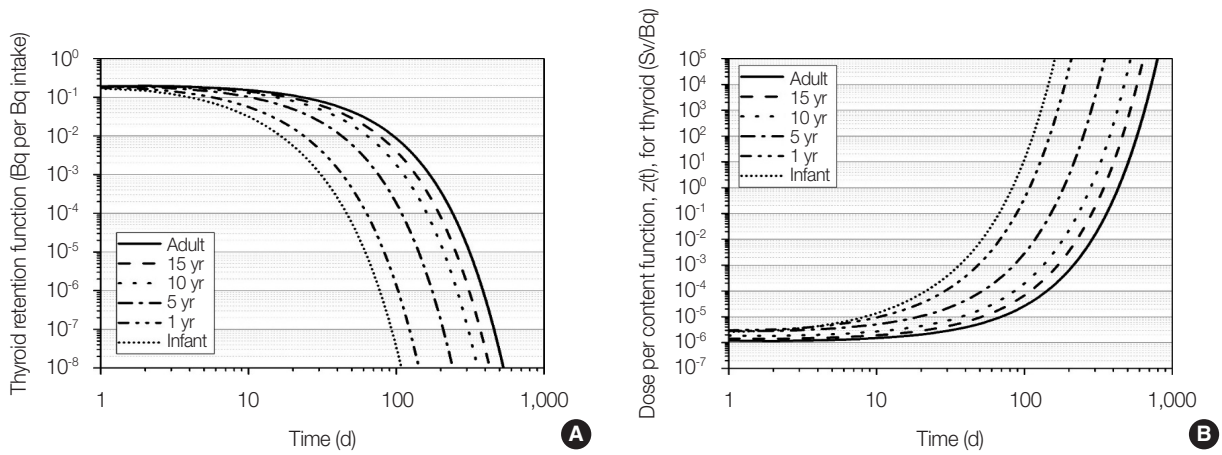


Fig. S3. Thyroid retention functions (A) and dose per content functions (B) for thyroid measurement of ingested ¹²⁵I.

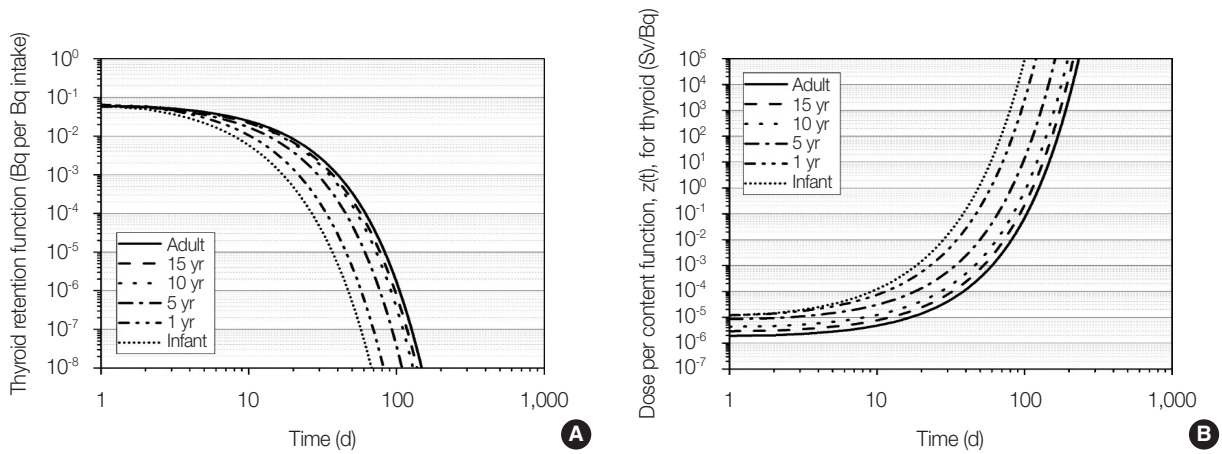


Fig. S4. Thyroid retention functions (upper) and dose per content functions (lower) for thyroid measurement of inhaled ¹³¹I (Aerosols, AMAD= 1 μm, F type). AMAD, activity median aerodynamic diameter; F type, absorption from respiratory tract model of F type.

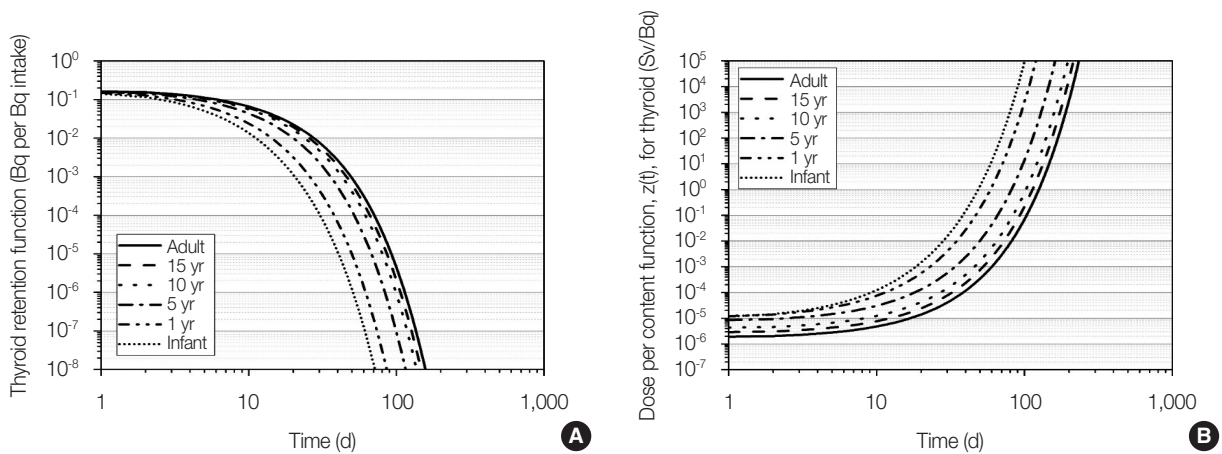


Fig. S5. Thyroid retention functions (A) and dose per content functions (B) for thyroid measurement of inhaled ¹³¹I (Gas or vapour, SR-1). SR-1, Class SR-1 gases (soluble and reactive gases and vapours).

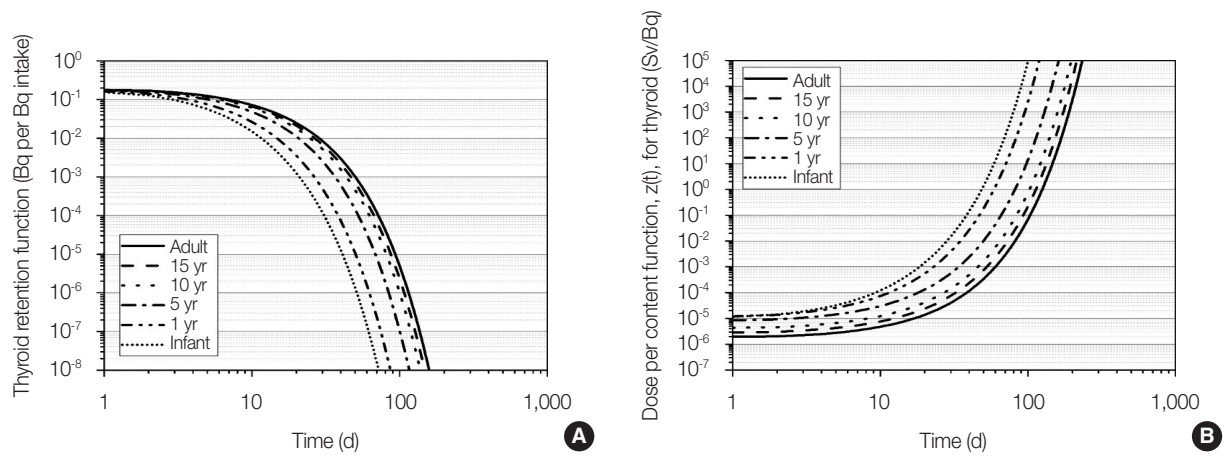


Fig. S6. Thyroid retention functions (A) and dose per content functions (B) for thyroid measurement of ingested ¹³¹I.