

1988	57.19	174.4	<u>Cs¹³⁷</u>	24.09	91.9
1981	0.15	0.15			
1982	0.083	0.063			
1983	0.063	0.05			
1984	0.052	0.045			
1985	0.031	0.03			
1986	1.88*	2.22*			
1987	0.83*	1.21*			
1988	0.15	0.12			
1989	0.84	0.12			
1990	0.32	0.10			

Note: * - the increased levels in 1986-1987 could be explained by the fallout after Chernobyl accident

In table 1.16 the specific activity of Sr-90 in the bone tissues of urban and rural populations of the Semipalatinsk region is shown. One kilogram of bone tissues contains 160 g of calcium. So, in order to obtain data on the concentration of Sr-90 in bone tissues, we must divide the specific activity of Sr-90 in the bone tissues by 160. The data are shown in "Sr units" (table 1.16).

Table 1. 16. Sr⁹⁰ in bone tissues of urban and rural population of the Semipalatinsk region

Years	Sr ⁹⁰ activity in the bones (skeletal tissues) of population			
	Urban		Rural	
	Picocurie/1kg bones	Sr-unit	Picocurie/1kg bones	Sr-unit
1981	159	0.99	76	0.48
1982	97	0.60	54	0.34
1983	157	0.98	168	1.05
1984	295	1.84	156	1.00
1985	183	1.21	144	0.98
1986	176	0.96	132	0.76
1987	221	1.31	138	0.75
1988	243	1.63	158	1.32
1989	295	1.84	299	1.91
1990	183	0.60	172	0.82

Table 1. 17. The activity of Sr⁹⁰ in extracted teeth of Semipalatinsk city residents

Years	Activity in children		Activity in adults			
	5-13 years		14-20 years		>20 years	
	pCi/kg	Sr units	pCi/kg	Sr units	pCi/kg	Sr units
1983	1065	7.6	1038	7.4	714	5.1
1984	214	1.5	267	1.9	—	—
1985	185	1.3	175	1.2	160	1.1
1986	270	1.9	—	—	149	1.06
1987	228	1.6	227	1.6	191	1.35
1988	216	1.5	—	—	117	0.84
1989	234	1.7	234	1.6	182	1.31