



SHOTORAMA (LSW)

Yearly age
coefficients

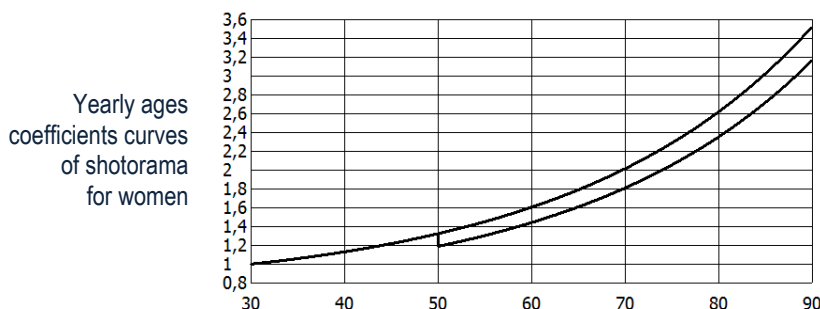
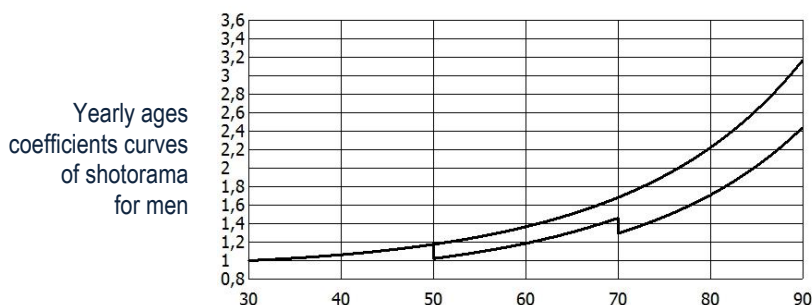
Shotorama **regulations** can be found at:

<http://www.joomla.lsw-spezialsport.de/Anlagen/LSW-Wettkampfordnung.pdf>

Lithuania is a small country, so often in different age groups participate one, two athletes only (in some age groups there are no sportsmen). Thus, yearly age coefficients are not only desirable, they are necessary in Lithuania. We hope that other countries will use the Lithuanian yearly age coefficients too.

Yearly age coefficients are determined using the exponential function: $k = A \cdot e^{a+b \cdot m^n}$. In equation: k is yearly age coefficient, A is the coefficient, which evaluates the increase of result (decrease of yearly age coefficient) when the mass of shots is changing, m is the age of the athlete (in years) at the time of sport event (it is calculated by deducting athlete's birthday from the first day of the competition), a and b are coefficients that depend on the statistically obtained averages of the results in age groups, n is the exponent.

Men	Women
$k = A \cdot e^{(-0.04436)+0.000001639m^3}$	$k = A \cdot e^{(-0.1569)+0.0001745m^2}$
when $m \leq 49$, then $A=1.0000$, when $50 \leq m \leq 69$, then $A=0.8690$, when $m \geq 70$, then $A=0.7697$.	when $m \leq 49$, then $A=1.0000$, when $m \geq 50$, then $A=0.8984$.



Note. Yearly age coefficients are presented in the table. Their meanings are rounded to four significant digits. These rounded meanings should be used on computer programs; otherwise the results calculated using the formula given and results presented in the table will differ slightly.



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Men	Age	Women
1,000	30	1,000
1,004	31	1,011
1,009	32	1,022
1,015	33	1,034
1,020	34	1,046
1,026	35	1,059
1,033	36	1,072
1,039	37	1,085
1,047	38	1,100
1,054	39	1,115
1,062	40	1,130
1,071	41	1,146
1,080	42	1,163
1,090	43	1,180
1,100	44	1,198
1,111	45	1,217
1,122	46	1,237
1,134	47	1,257
1,147	48	1,278
1,160	49	1,300
1,020	50	1,188
1,033	51	1,209
1,047	52	1,231
1,061	53	1,254
1,076	54	1,277
1,092	55	1,302
1,109	56	1,327
1,126	57	1,354
1,145	58	1,381
1,164	59	1,410
1,184	60	1,439
1,206	61	1,470
1,229	62	1,502
1,252	63	1,535
1,277	64	1,569
1,304	65	1,605
1,332	66	1,642
1,361	67	1,681
1,392	68	1,721
1,424	69	1,763
1,292	70	1,806
1,324	71	1,851
1,357	72	1,898
1,393	73	1,946
1,430	74	1,997
1,470	75	2,049
1,512	76	2,104
1,556	77	2,161
1,603	78	2,220
1,652	79	2,282
1,704	80	2,346
1,759	81	2,413
1,818	82	2,483
1,880	83	2,555
1,945	84	2,631
2,015	85	2,709
2,088	86	2,791
2,167	87	2,877
2,250	88	2,966
2,338	89	3,059