



SLINGBALL THROW (LSW)

Yearly age
coefficients

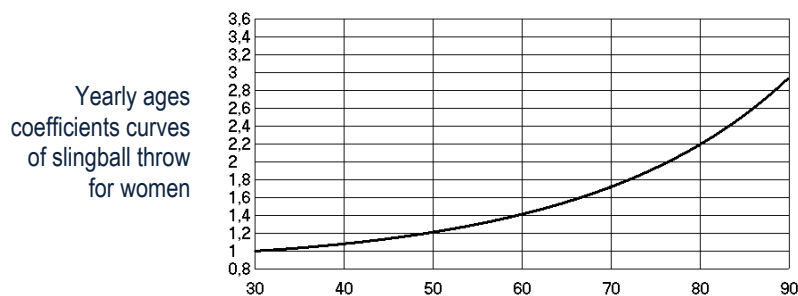
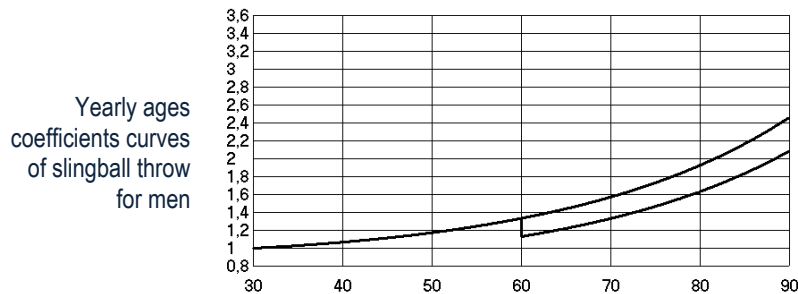
Slingball throw **regulations** can be found at:

<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
$k = A \cdot e^{(-0,0620)+0,00001249 \cdot m^{2,5}}$		$k = A \cdot e^{(-0,0735)+0,00001496 \cdot m^{2,5}}$
when $m \leq 59$,	then $A=1.0000$,	For all groups $A=1.0000$.
when $m \geq 60$,	then $A=0.8475$.	



Men	Age	Women
1.000	30	1.000
1.005	31	1.007
1.010	32	1.013
1.016	33	1.020
1.022	34	1.028
1.029	35	1.036
1.036	36	1.044
1.043	37	1.052
1.050	38	1.061
1.058	39	1.071
1.067	40	1.081
1.075	41	1.091
1.084	42	1.102
1.094	43	1.114
1.103	44	1.126
1.114	45	1.139
1.124	46	1.152
1.136	47	1.165
1.147	48	1.180
1.159	49	1.195
1.172	50	1.210
1.185	51	1.227
1.199	52	1.244
1.213	53	1.262
1.228	54	1.280
1.244	55	1.300
1.260	56	1.320
1.277	57	1.341
1.294	58	1.363
1.313	59	1.386
1.128	60	1.410
1.145	61	1.435
1.162	62	1.461
1.181	63	1.489
1.199	64	1.517
1.219	65	1.547
1.239	66	1.578
1.260	67	1.610
1.282	68	1.644
1.305	69	1.679
1.329	70	1.716
1.354	71	1.754
1.380	72	1.794
1.407	73	1.836
1.435	74	1.880
1.464	75	1.926
1.494	76	1.973
1.525	77	2.023
1.558	78	2.076
1.593	79	2.130
1.628	80	2.188
1.665	81	2.248
1.704	82	2.310
1.744	83	2.376
1.786	84	2.445
1.830	85	2.517
1.876	86	2.592
1.924	87	2.672
1.974	88	2.755
2.026	89	2.842

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.



Author of yearly age coefficients – dr. Kęstutis Vislavičius