



SHOT PUT TRIATHLON (LSW)

Yearly age
coefficients

Shot put triathlon **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
$k = A \cdot e^{(-0.0735)+0.000001496m^{2.5}}$	$k = A \cdot e^{(-0.0735)+0.000001496m^{2.5}}$
when $m \leq 49$, $A=1.0000$, when $50 \leq m \leq 59$, $A=0.9053$, when $60 \leq m \leq 69$, $A=0.8208$, when $m \geq 70$, $A=0.7449$.	when $m \leq 49$, $A=1.0000$, when $m \geq 50$, $A=0.8425$.

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

Men	Age	Women
1.000	30	1.000
1.007	31	1.007
1.013	32	1.013
1.020	33	1.020
1.028	34	1.028
1.036	35	1.036
1.044	36	1.044
1.052	37	1.052
1.061	38	1.061
1.071	39	1.071
1.081	40	1.081
1.091	41	1.091
1.102	42	1.102
1.114	43	1.114
1.126	44	1.126
1.139	45	1.139
1.152	46	1.152
1.165	47	1.165
1.180	48	1.180
1.195	49	1.195
1.096	50	1.020
1.111	51	1.034
1.126	52	1.048
1.142	53	1.063
1.159	54	1.079
1.177	55	1.095
1.195	56	1.112
1.214	57	1.130
1.234	58	1.148
1.255	59	1.168
1.157	60	1.188
1.178	61	1.209
1.199	62	1.231
1.222	63	1.254
1.245	64	1.278
1.270	65	1.303
1.295	66	1.329
1.322	67	1.356
1.349	68	1.385
1.378	69	1.414
1.278	70	1.445
1.307	71	1.478
1.337	72	1.512
1.368	73	1.547
1.400	74	1.584
1.434	75	1.622
1.470	76	1.663
1.507	77	1.705
1.546	78	1.749
1.587	79	1.795
1.630	80	1.843
1.674	81	1.894
1.721	82	1.946
1.770	83	2.002
1.821	84	2.060
1.875	85	2.120
1.931	86	2.184
1.990	87	2.251
2.052	88	2.321
2.117	89	2.394