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• INNERE MEDIZIN

Tab. 1. Altersbezogene Basisrisiken und Multiplikatoren "traditioneller" Risikofaktoren.

Alter (J.)	35	36 – 37	38	39 – 40	41	42	43	44	45	46	47	48	49	50
Risiko (%)	0,4	0,5	0,6	0,7	0,8	0,9	1	1,1	1,2	1,4	1,5	1,7	1,9	2,1

Alter (J.)	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
Risiko (%)	2,3	2,5	2,8	3,1	3,4	3,8	4,2	4,6	5,1	5,7	6,3	6,9	7,7	8,5	9,3

Gesamt-Cholesterin (mg%)	< 200	200 – 239	240 – 279	> 280
Risikoerhöhung (Multiplikator)	1	1,5	1,9	3

LDL-Cholesterin (mg%)	120	140	160	180	200	220	240
Risikoerhöhung (Multiplikator)	1	1,3	1,8	2,3	3	3,8	5

HDL-Cholesterin (mg%)	55	50	45	40	35	30	25
Risikoerhöhung (Multiplikator)	1	1,3	1,4	1,6	1,9	2,1	2,4

Cholesterin-HDL-Quotient	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8	8,5
Risikoerhöhung (Multiplikator)	1	1,3	1,45	1,65	2,3	2,65	3,3	4	5,3	6	9,3

Neutralfette/Triglyceride (mg%)	100	200	300	400
Risikoerhöhung (Multiplikator)	1	1,2	1,4	1,6

Blutdruck/RR syst. (mmHg)	130	140	150	160	170	180	190	200	210	220
Risikoerhöhung Herzinfarkt (Multiplikator)	1	1,2	1,3	1,4	1,5	1,6	2	2,2	2,3	2,5
Risiko Herzinsuffizienz (Multiplikator)	1	2	3	5	7	10	13	13	13	13
Risiko Schlaganfall (Multiplikator)	1	2,5	4	7	10	20	30	30	30	30

Blutdruck/RR diast. (mmHg)	80	85	90	95	100	105	110
Risikoerhöhung Herzinfarkt (Multiplikator)	0,7	1	1,4	1,8	2,2	3	4
Risikoerhöhung Herzinsuff. (Multiplikator)	1	1	2	3	5	7	13
Risikoerhöhung Schlaganfall (Multiplikator)	1	1	2,5	4	7	10	30

Rauchen (Zig./Tag)	< 10	20	30	40	> 50
Risikoerhöhung Herz-Kreislauf (Multiplikator)	1,5	2	2,5	3	4
Risikoerhöhung Krebs (Multiplikator)	4	7	20	30	40

HbA1c	6,0 – 6,5	6,5 – 7,0	7,0 – 9,0	9,0 – 11,0	11,0 – 13,0
Risikoerhöhung Makroangiopathie (Multiplikator)	1	1,25	1,9	2,5	3,1
Risikoerhöhung Mikroangiopathie (Multiplikator)	1	2	6	13	25

Body-Mass-Index (BMI)	< 25	25 – 28	> 28	> 30	> 32
Risikoerhöhung Herz-Kreislauf (Multiplikator)	1	1,5	2	3	4
Krebs-Risikoerhöhung, Frauen (Multiplikator)				9	9
Krebs-Risikoerhöhung, Männer (Multiplikator)				3	9

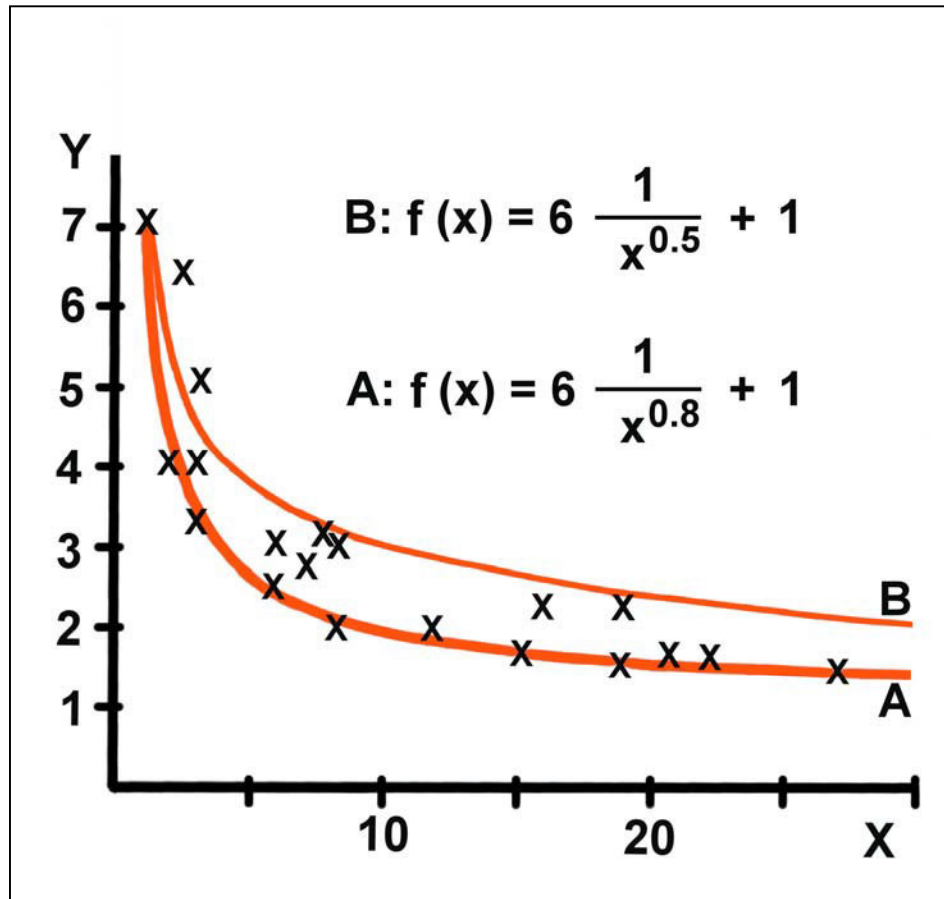| Familiäre Belastung	nein	ja
Risikoerhöhung (Multiplikator)	1	1,5

Tab. 2. Multiplikatoren für "neuere" Risiko- und "Bonus"-Faktoren.

Hüft-Taillen-Quotient/WHR – Männer	< 0.859	0,860 – 0,909	0,910 – 0,949	0,950 – 0,999	1,000 – 1,039	> 1,04
Risikoerhöhung (Multiplikator)	1	1,6	2,3	2,9	3,6	5

Hüft-Taillen-Quotient/WHR – Frauen	< 0,720	0,720 – 0,759	0,760 – 0,799	0,800 – 0,839	0,840 – 0,879	> 0,88
Risikoerhöhung (Multiplikator)	1	1,6	2,3	2,9	3,6	5

Taillenumfang Mann (cm)	> 94	> 102
Taillenumfang Frau (cm)	> 80	> 88
Risikoerhöhung (Multiplikator)	ca. 1,5 – 2,5	ca. 3 – 8

Lipoprotein A (mg/dl)	< 20	> 20
Risikoerhöhung (Multiplikator)	1	2

Hochsensitives C-Reaktives Protein (hs-CRP)	< 0,7	0,7 – 1,1	1,2 – 1,9	2,0 – 3,8	3,9 – 15,0
Risikoerhöhung (Multiplikator)	1	1,2	1,4	1,7	2,2

Homocystein (μmol/l)	< 10	12 – 13	15	17 – 18	> 20
Risikoerhöhung (Multiplikator)	1	1,5	2	3	4

Fibrinogen	normal	erhöht
Risikoerhöhung (Multiplikator)	1	1,5

Chlamydia pneumoniae	negativ	positiv
Risikoerhöhung (Multiplikator)	1	2,6

Psychosozialer Streß	wenig	viel
Risikoerhöhung (Multiplikator)	1	2,7

Albumin im Harn/Mikroalbuminurie (mg/dl)	0	10 – 14	15 – 29	30 – 300	> 300
Risikoerhöhung (Multiplikator)	1	1,5	2	3	8

Koronargefäßverkalkung (Agatston-Score)	< 100	100 – 400	> 400
Risikoerhöhung (Multiplikator)	1	2	3,5

Durchschnittliche Herzfrequenz	< 80	> 80	> 90	> 100
Risikoerhöhung für Herztod (Multiplikator)	1	2,4	2,8	5,2

Bonus-Faktoren	viel Obst u. Gemüse	regelm. Ausdauersport	Alkohol moderat
Risikoverringerung (Multiplikator)	0,7	0,85	0,9

$$F(x) = 100 \tanh (0{,}008x)$$

Umrechnung von Procam- in Framimgham-Risiken

Auf dem Diagramm:
$$B: f(x) = 6\,\frac{1}{x^{0.5}} + 1$$

$$A: f(x) = 6\,\frac{1}{x^{0.8}} + 1$$
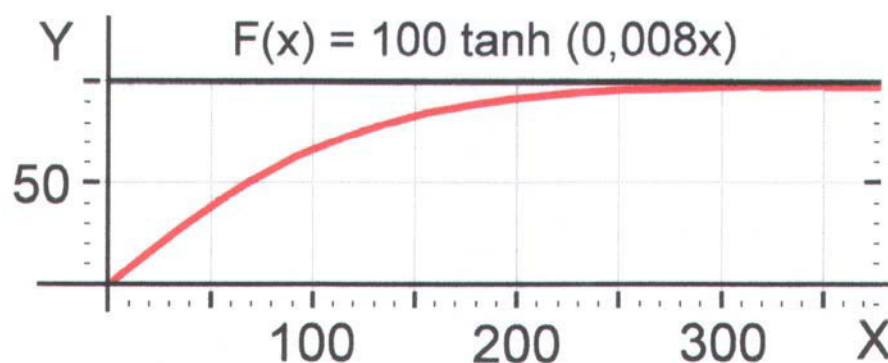
x-Achse: Procam-Risiken
y-Achse: Korrespondierende Multiplikatoren für Framingham-Risiken
Graph A: Maximal mögliche Multiplikatoren
Graph B: Minimal mögliche Multiplikatoren

Umrechnung von Procam- in ESC-Risiken

Für High Risk-Länder:
Minimaler Multiplikator: 0,3
Mittlerer Multiplikator: 0,4
Maximaler Multiplikator: 0,5

Für Low Risk-Länder:
Minimaler Multiplikator: 0,1
Mittlerer Multiplikator: 0,2
Maximaler Multiplikator: 0,3
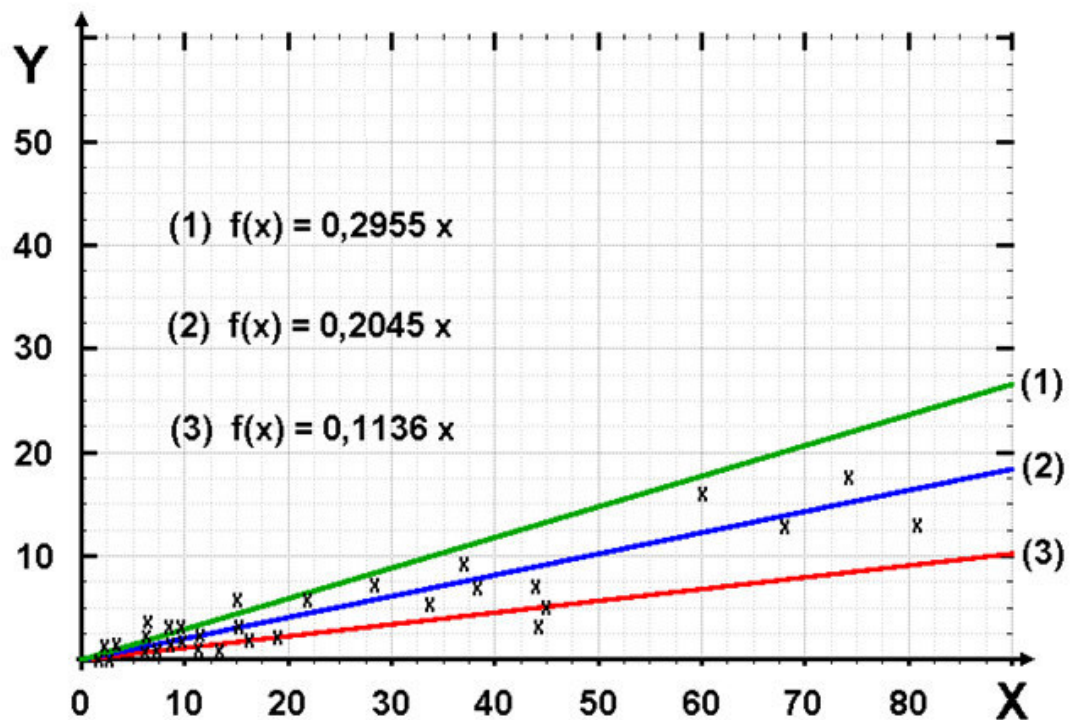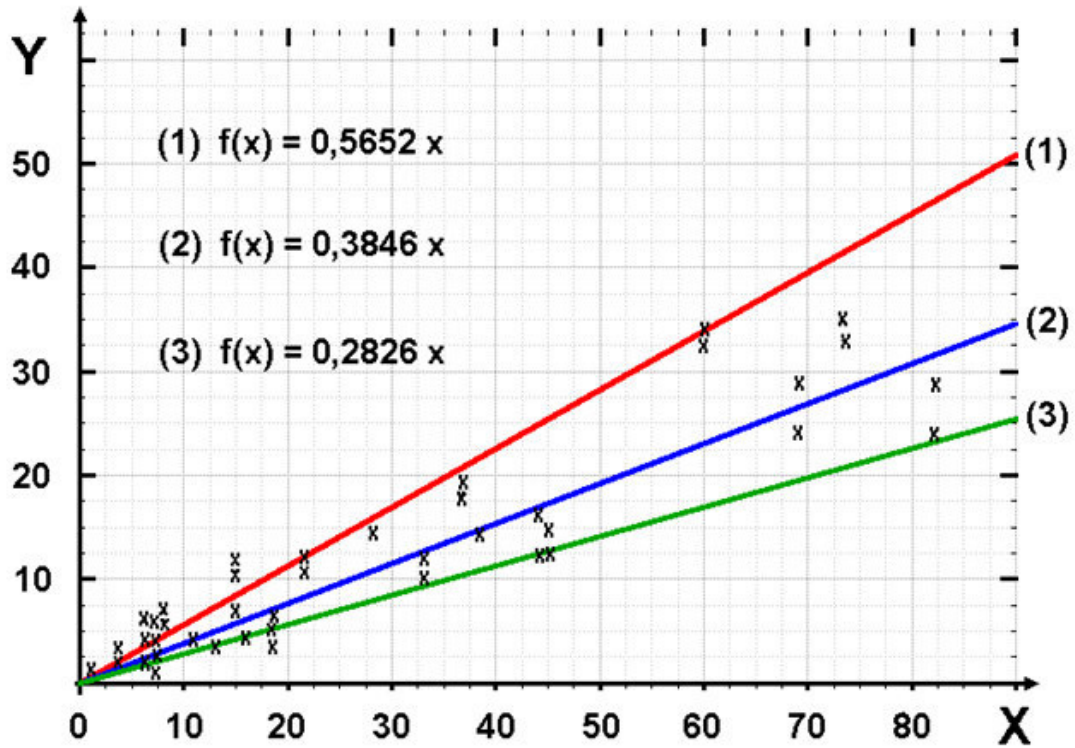
Umrechnung von PROCAM- Risiken in korrespondierende ESC-Risiko-Streubereiche (1-3), Darstellung für Hochrisiko- (oben) und Niedrigrisiko-Länder (unten).
X = Procam-Risiken, Y bzw. f(x) = ESC-Risiken.

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