



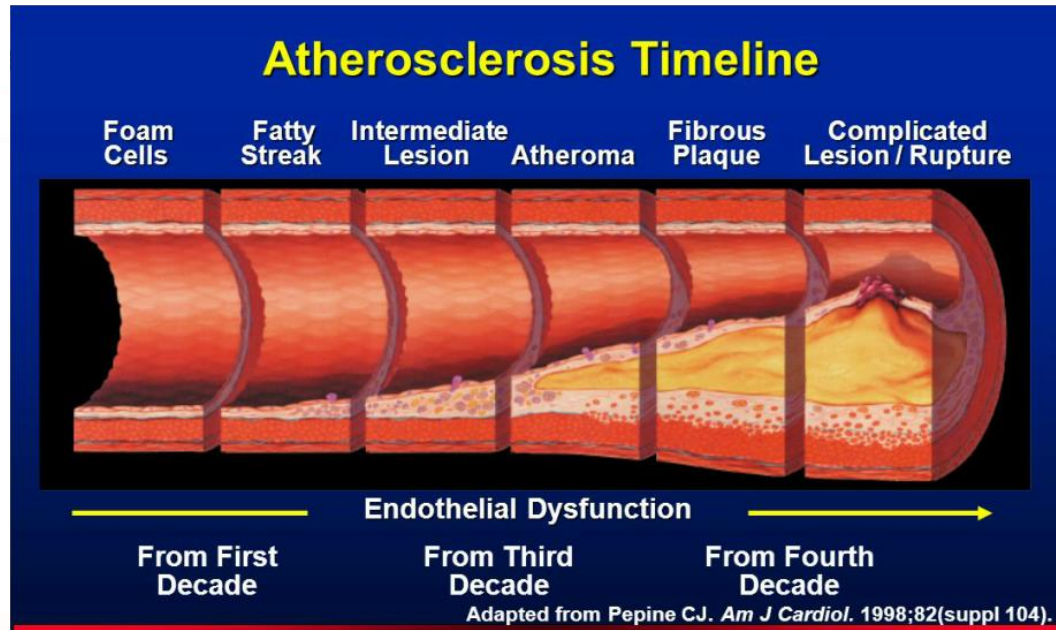
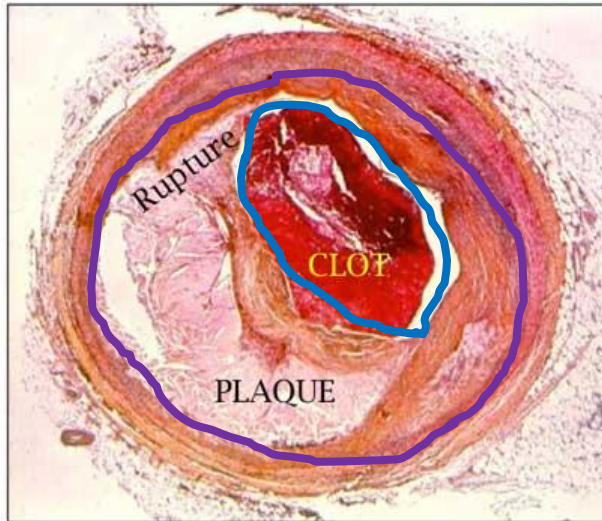
HART
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Primaire preventie

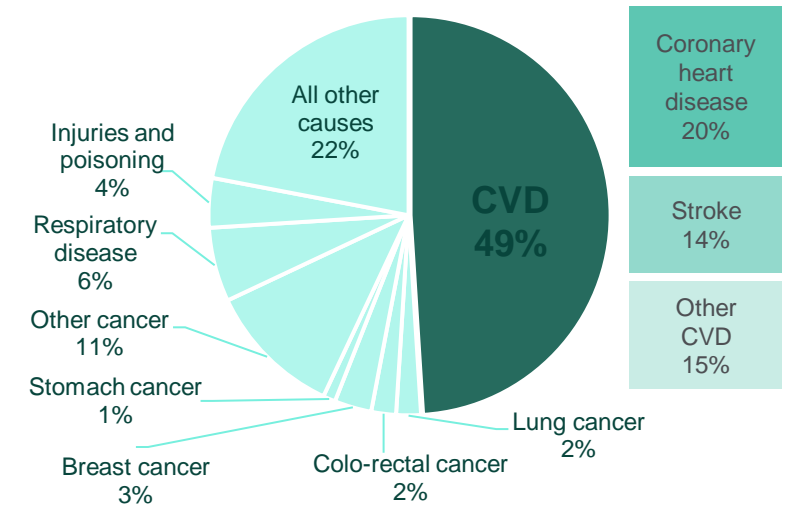
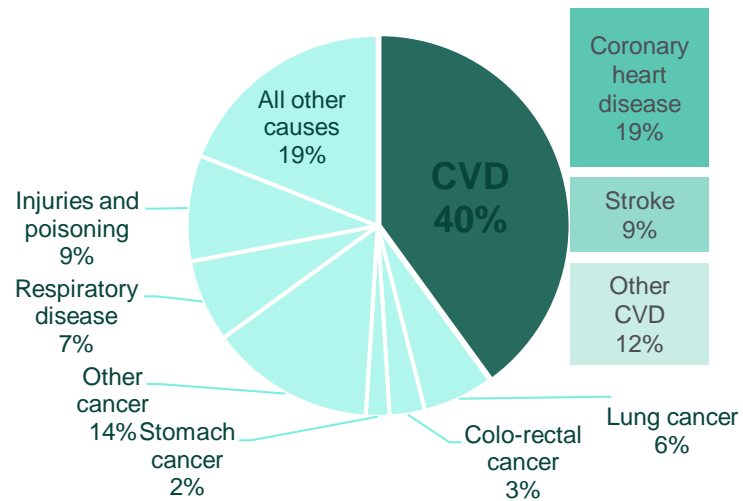
LOK mei 2023

Dr Mark Ronsyn

ZIEKENHUIS *aan*
de STROOM



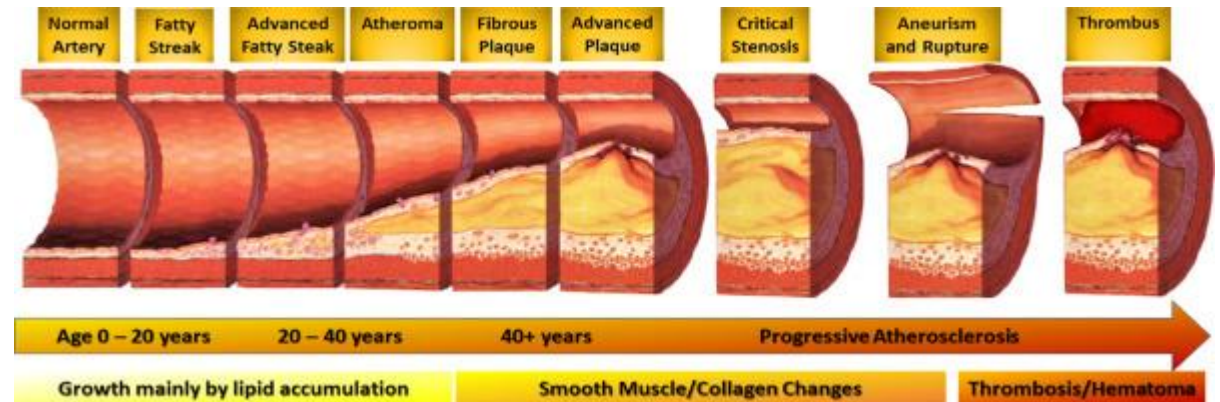
- CVZ: belangrijkste doodsoorzaak wereldwijd
- CVZ > 4 miljoen doden per jaar in Europa: 1,4 miljoen premature overlijdens < 75 jr
 - 45% overall mortaliteit/jaar
 - 49% bij vrouwen
 - 45% bij mannen



Secundaire preventie >> vasculair event

Het lipidenbeleid anno 2021

- Na een klinisch event: ACS, angor, PCI, CABG, CVA, TIA, perifeer vaatlijden
- Beeldvorming: significante plaques op duplex halsvaten, ileofemorale vaten of coronaire CT
- Morbiditeit: DM
- Ernstig nierlijden (eGFR < 30 ml/min)
- Familiale HyperCh
- Cardiovasculair RisicoScore $\geq 10\%$



Casus

Vrouw, 61 jr

CH/HDL/LDL/TG/non-HDL
243/77/151/75/166

L 180 cm, G 69 kg, BMI 21

Fam:- Roken:-, DM:-, AHT:-, CH:+

Fam:+ Roken:+, DM:-, AHT:+, CH:+



ESC

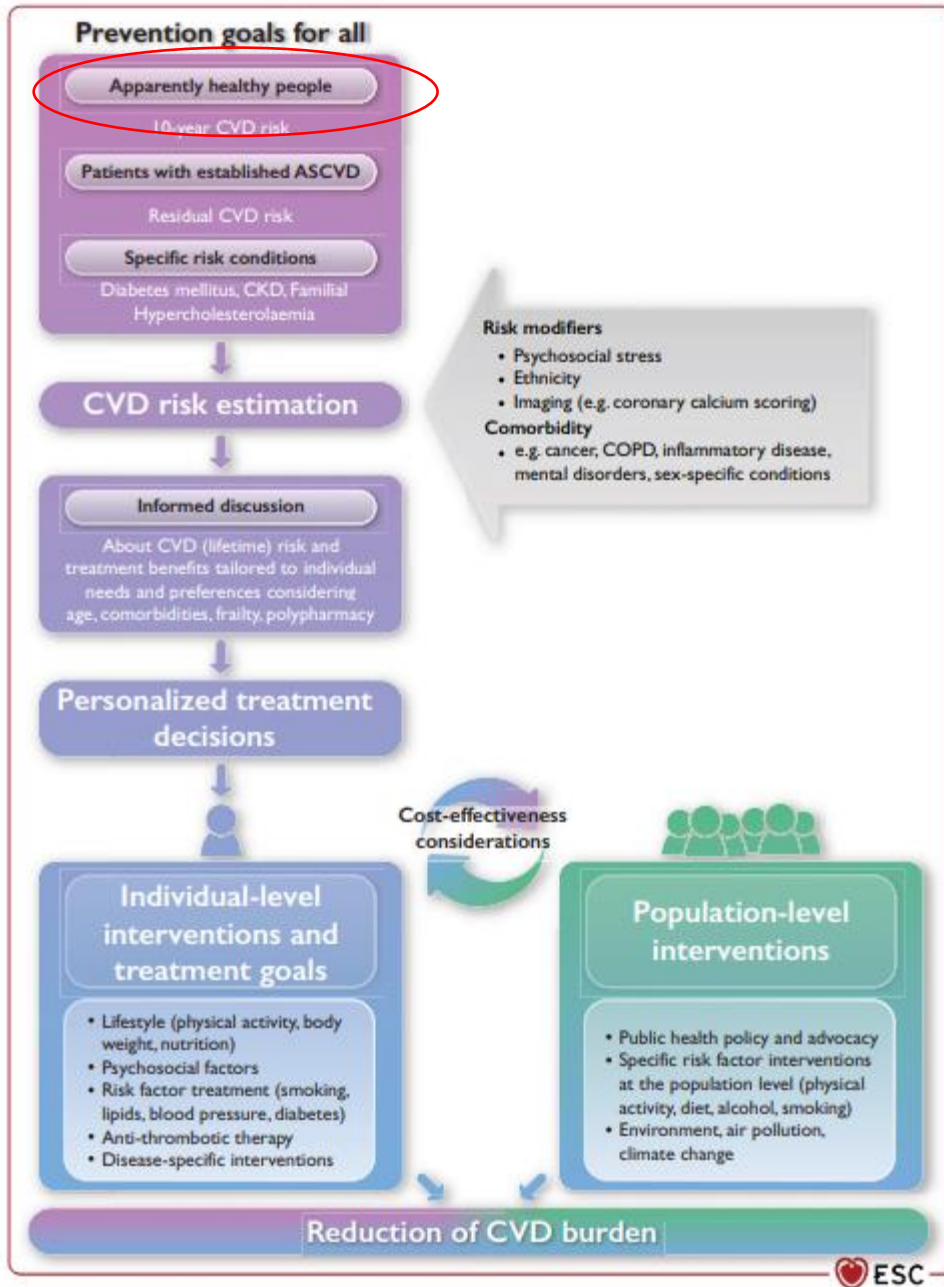
European Society
of Cardiology

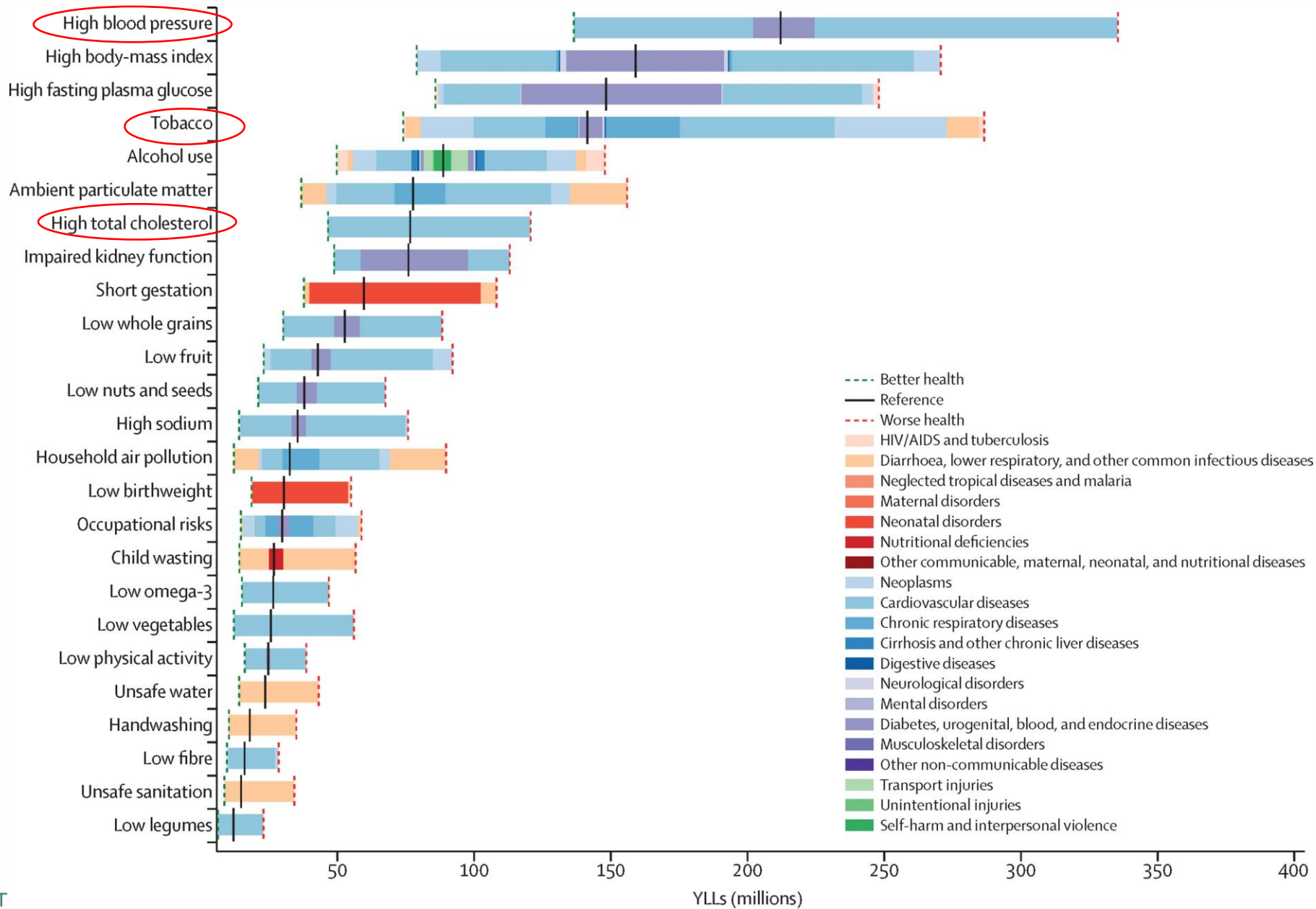


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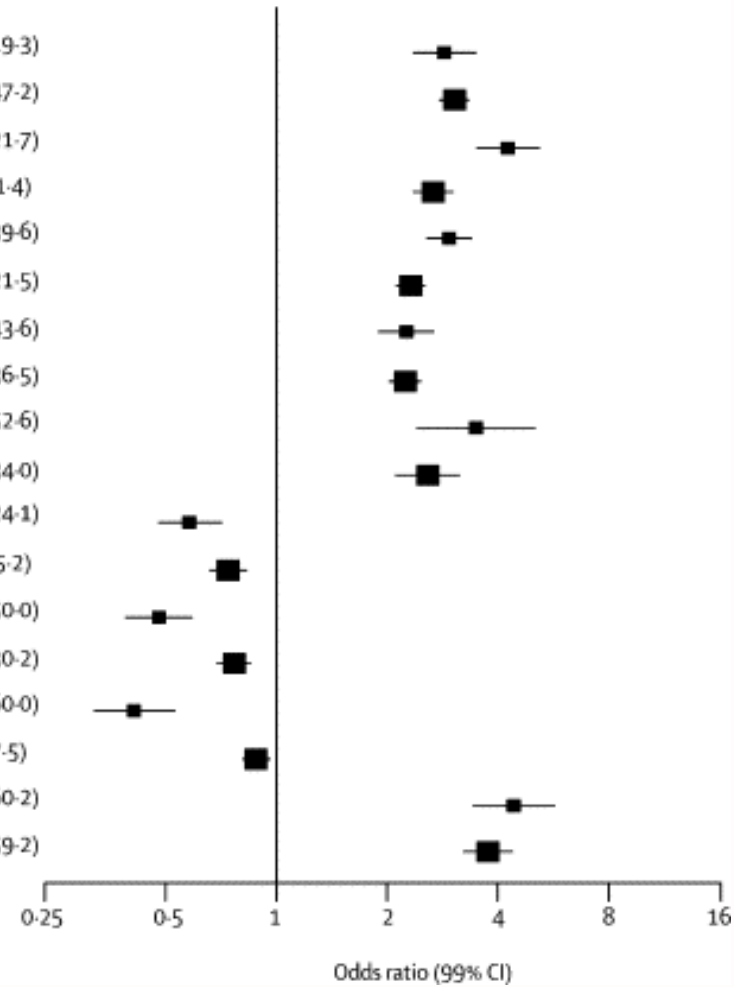
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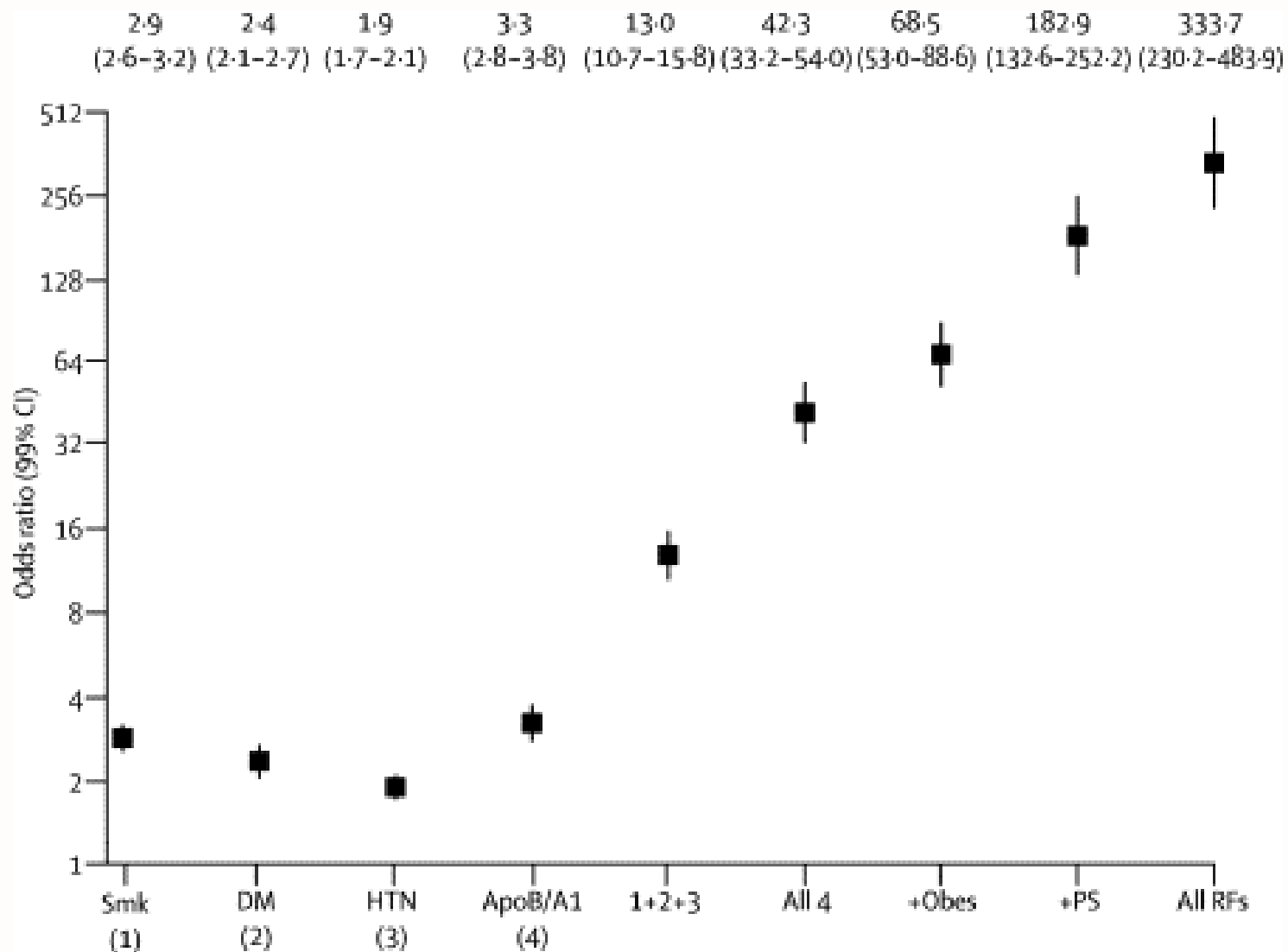
30 Aug 2021

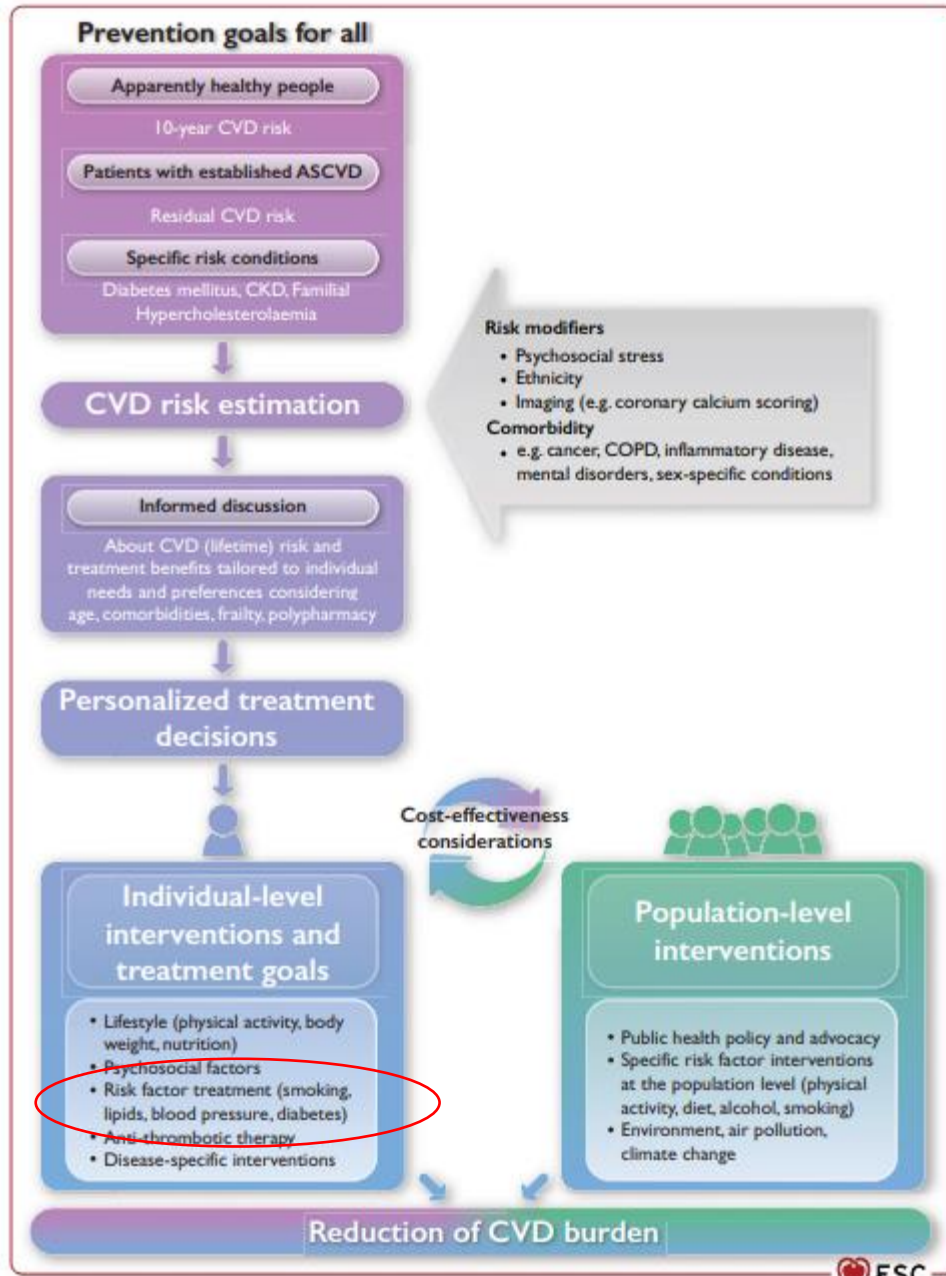




Risk factor	Sex	Control (%)	Case (%)	Odds ratio (99% CI)	PAR (99% CI)
Current smoking	F	9.3	20.1	2.86 (2.36-3.48)	15.8% (12.9-19.3)
	M	33.0	53.1	3.05 (2.78-3.33)	44.0% (40.9-47.2)
Diabetes	F	7.9	25.5	4.26 (3.51-5.18)	19.1% (16.8-21.7)
	M	7.4	16.2	2.67 (2.36-3.02)	10.1% (8.9-11.4)
Hypertension	F	28.3	53.0	2.95 (2.57-3.39)	35.8% (32.1-39.6)
	M	19.7	34.6	2.32 (2.12-2.53)	19.5% (17.7-21.5)
Abdominal obesity	F	33.3	45.6	2.26 (1.90-2.68)	35.9% (28.9-43.6)
	M	33.3	46.5	2.24 (2.03-2.47)	32.1% (28.0-36.5)
Psychosocial index	F	-	-	3.49 (2.41-5.04)	40.0% (28.6-52.6)
	M	-	-	2.58 (2.11-3.14)	25.3% (18.2-34.0)
Fruits/veg	F	50.3	39.4	0.58 (0.48-0.71)	17.8% (12.9-24.1)
	M	39.6	34.7	0.74 (0.66-0.83)	10.3% (6.9-15.2)
Exercise	F	16.5	9.3	0.48 (0.39-0.59)	37.3% (26.1-50.0)
	M	20.3	15.8	0.77 (0.69-0.85)	22.9% (16.9-30.2)
Alcohol	F	11.2	6.3	0.41 (0.32-0.53)	46.9% (34.3-60.0)
	M	29.1	29.6	0.88 (0.81-0.96)	10.5% (6.1-17.5)
ApoB/ApoA1 ratio	F	14.1	27.0	4.42 (3.43-5.70)	52.1% (44.0-60.2)
	M	21.9	35.5	3.76 (3.23-4.38)	53.8% (48.3-59.2)









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ESC Clinical Practice Guidelines

30 Aug 2021

Systematic CVD risk assessment in the general population (adult men >40 and women >50 years of age) with no known CV risk factors appears not cost-effective in reducing subsequent vascular events and premature death, at least in short-term follow-up, but does increase detection of CV risk factors. Risk assessment is not a one-time event; it should be repeated, for example, every 5 years, although there are no empirical data to guide intervals.



HART
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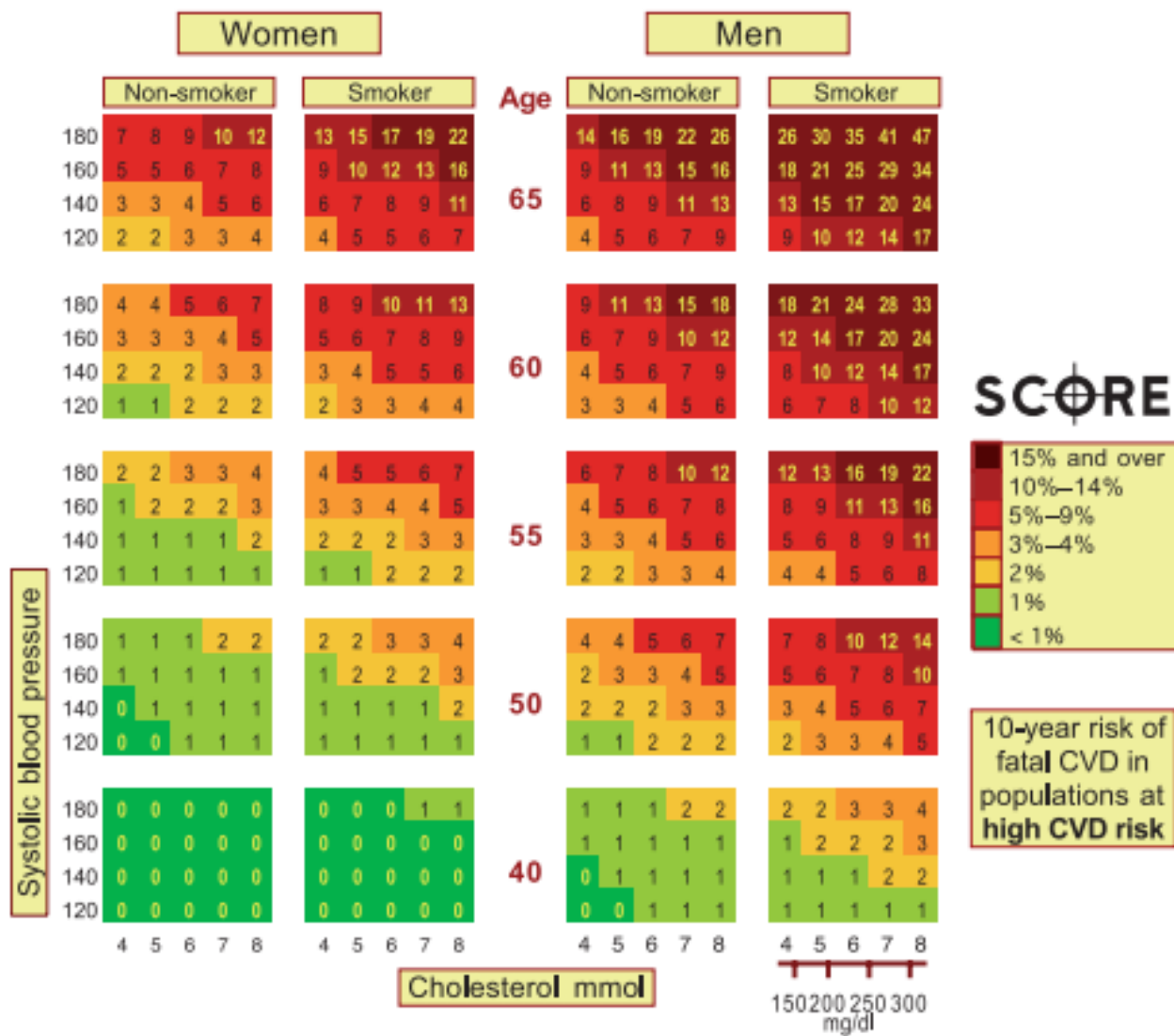
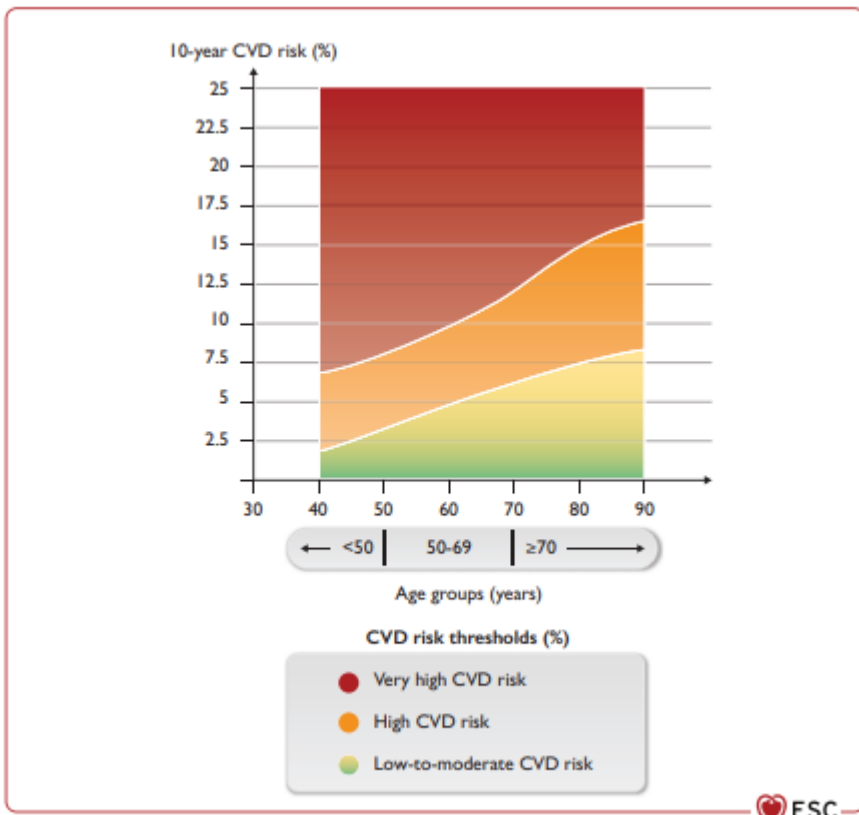


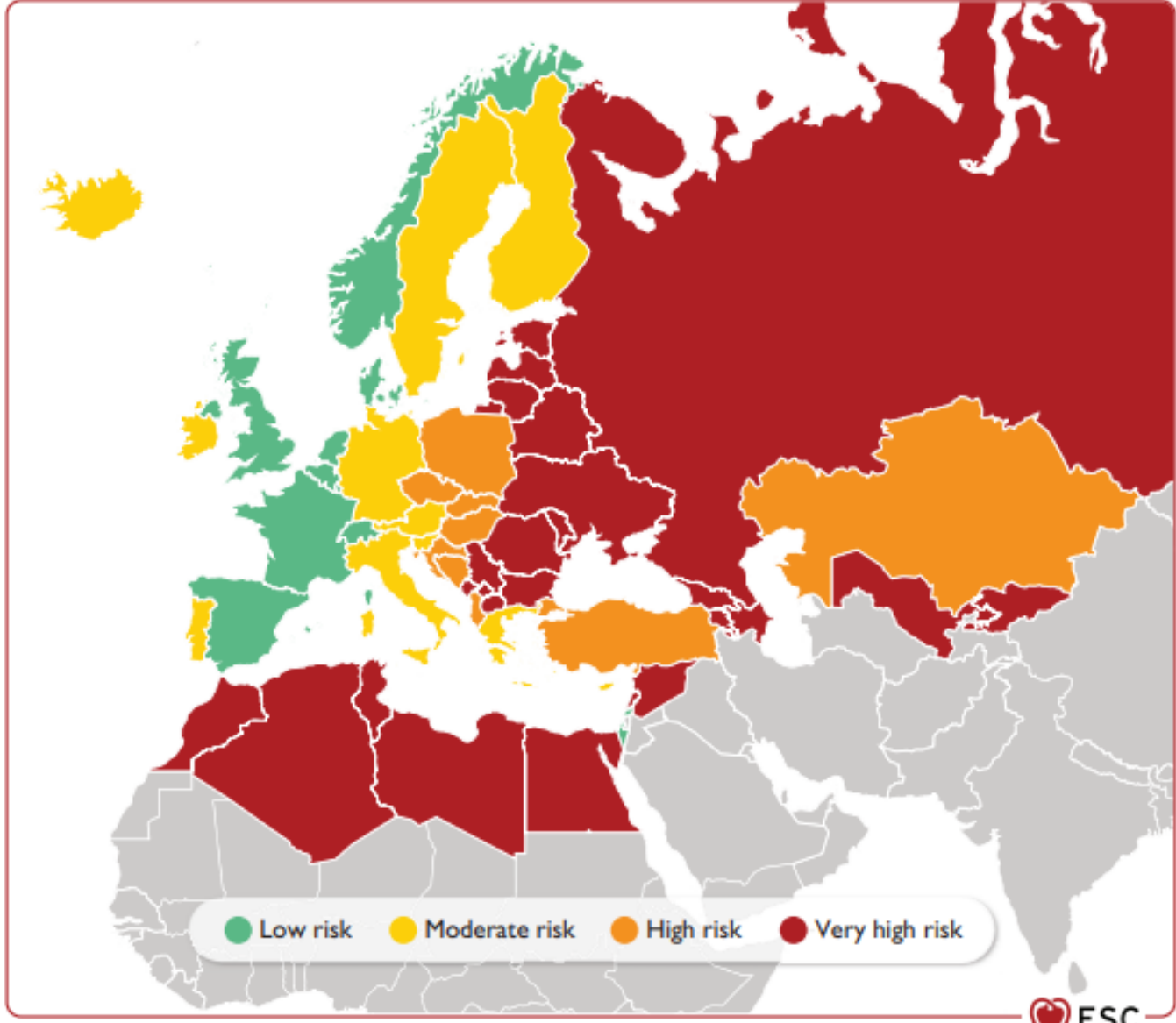
Fig. 1 Ten-year risk of fatal cardiovascular disease in populations at high cardiovascular disease risk. Chart based on total cholesterol.

SCORE2 & SCORE2-OP
10-year risk of (fatal and non-fatal) CV events in populations at **low** CVD risk



Systolic blood pressure (mmHg)	Women		Men		Age (years)	Non-HDL cholesterol (mmol/L)		Non-HDL cholesterol (mg/dL)																	
	Non-smoking	Smoking	Non-smoking	Smoking		3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9																
	SCORE2-OP	SCORE2-OP	SCORE2-OP	SCORE2-OP		150	200	250	150	200	250														
160-179	28	29	30	31	31	32	33	34	29	35	42	49	29	35	42	49	85-89	29	35	42	49	29	35	42	49
140-159	26	27	28	29	29	30	31	32	28	33	40	47	27	33	40	47	80-84	28	33	40	47	27	33	40	47
120-139	24	25	26	27	27	28	29	30	26	32	38	45	26	32	38	45	75-79	26	32	38	45	26	32	38	45
100-119	23	24	25	26	25	26	27	28	25	30	36	43	25	30	36	43	70-74	25	30	36	43	25	30	36	43
160-179	20	21	22	23	25	26	28	29	23	27	32	37	26	31	36	41	65-69	23	27	32	37	26	31	36	41
140-159	18	19	20	21	23	24	25	26	21	25	29	34	24	28	33	38	60-64	21	25	29	34	24	28	33	38
120-139	16	17	18	19	20	21	22	23	19	22	26	31	22	25	30	34	55-59	19	22	26	31	22	25	30	34
100-119	15	15	16	17	18	19	20	21	17	20	24	28	19	23	27	31	50-54	17	20	24	28	19	23	27	31
160-179	15	15	16	17	21	22	23	24	16	18	21	23	21	23	26	30	45-49	16	18	21	23	21	23	26	30
140-159	13	13	14	15	18	19	20	21	14	15	18	20	18	20	23	26	40-44	14	15	18	20	18	20	23	26
120-139	11	11	12	13	15	16	17	18	12	13	15	17	15	17	19	22		12	13	15	17	15	17	19	22
100-119	9	10	10	11	13	14	15	15	10	11	12	13	14	16	17	19		10	11	12	13	14	16	17	19
160-179	10	11	12	12	17	18	19	20	15	16	18	19	22	24	26	28		15	16	18	19	22	24	26	28
140-159	9	9	10	10	14	15	16	16	12	13	14	16	18	19	21	23		12	13	14	16	18	19	21	23
120-139	7	7	8	8	11	12	13	14	10	11	12	13	14	16	17	19		10	11	12	13	14	16	17	19
100-119	6	6	6	7	9	10	10	11	8	8	9	10	12	13	14	15		8	8	9	10	12	13	14	15
160-179	8	8	9	9	12	12	13	13	11	12	12	13	15	16	17	19		11	12	12	13	15	16	17	19
140-159	7	7	7	7	10	10	11	11	9	10	11	11	13	14	15	16		9	10	11	11	13	14	15	16
120-139	5	6	6	6	8	9	9	9	8	8	9	10	11	12	13	13		8	8	9	10	11	12	13	13
100-119	5	5	5	5	7	7	7	8	6	7	7	8	9	10	11	11		6	7	7	8	9	10	11	11
160-179	6	6	7	7	10	10	11	11	8	9	10	11	13	14	15	17		8	9	10	11	13	14	15	17
140-159	5	5	5	6	8	8	9	9	7	8	8	9	10	11	13	14		7	8	8	9	10	11	13	14
120-139	4	4	4	5	6	7	7	8	6	6	7	8	9	10	10	11		6	6	7	8	9	10	10	11
100-119	3	3	4	4	5	6	6	6	5	5	6	6	7	8	9	10		5	5	6	6	7	8	9	10
160-179	4	5	5	5	8	8	9	10	7	7	8	9	10	12	13	15		7	7	8	9	10	12	13	15
140-159	3	4	4	4	6	7	7	8	5	6	7	8	9	10	11	12		5	6	7	8	9	10	11	12
120-139	3	3	3	3	5	6	6	6	4	5	5	6	7	8	9	10		4	5	5	6	7	8	9	10
100-119	2	2	3	3	4	4	5	5	4	4	4	5	6	6	7	8		4	4	4	5	6	6	7	8
160-179	3	4	4	4	6	7	7	8	5	6	7	8	9	10	11	13		5	6	7	8	9	10	11	13
140-159	3	3	3	3	5	5	6	6	4	5	5	6	7	8	9	10		4	5	5	6	7	8	9	10
120-139	2	2	2	3	4	4	5	5	3	4	4	5	6	6	7	8		3	4	4	5	6	6	7	8
100-119	2	2	2	2	3	3	4	4	3	3	3	4	4	5	6	7		3	3	3	4	4	5	6	7
160-179	2	3	3	3	5	5	6	7	4	5	6	6	7	8	10	11		4	5	6	6	7	8	10	11
140-159	2	2	2	3	4	4	5	5	3	4	4	5	6	7	8	9		3	4	4	5	6	7	8	9
120-139	1	2	2	2	3	3	4	4	2	3	3	4	4	5	6	7		2	3	3	4	4	5	6	7
100-119	1	1	1	1	2	2	3	3	2	2	3	3	3	4	5	5		2	2	3	3	3	4	5	5
160-179	2	2	2	3	4	4	5	6	3	4	5	5	6	7	8	10		3	4	5	5	6	7	8	10
140-159	1	2	2	2	3	3	4	4	2	3	3	4	5	5	6	8		2	3	3	4	5	5	6	8
120-139	1	1	1	1	2	3	3	3	2	2	3	3	3	4	5	6		2	2	3	3	3	4	5	6
100-119	1	1	1	1	2	2	2	2	1	2	2	2	3	3	4	5		1	2	2	2	3	3	4	5





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- Southern Asian: multiply the risk by 1.3 for Indians and Bangladeshis, and 1.7 for Pakistanis.
- Other Asian: multiply the risk by 1.1.
- Black Caribbean: multiply the risk by 0.85.
- Black African and Chinese: multiply the risk by 0.7.

Family history of premature CVD is a simple indicator of CVD risk, reflecting the genetic and environment interplay.¹³³ In the few studies

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Age is the major driver of CVD risk. Women below 50 years and men below 40 years of age are almost invariably at low 10-year CVD risk, but may have unfavourable modifiable risk factors that sharply increase their longer-term CVD risk. Conversely, men over 65 years and women over 75 years of age are almost always at high 10-year CVD risk. Only between the ages of 55 and 75 years in women and 40 and 65 years in men does the 10-year CVD risk vary around commonly used thresholds for intervention. The age categories <50, 50–69, and ≥70 years should be used with common sense and flexi-

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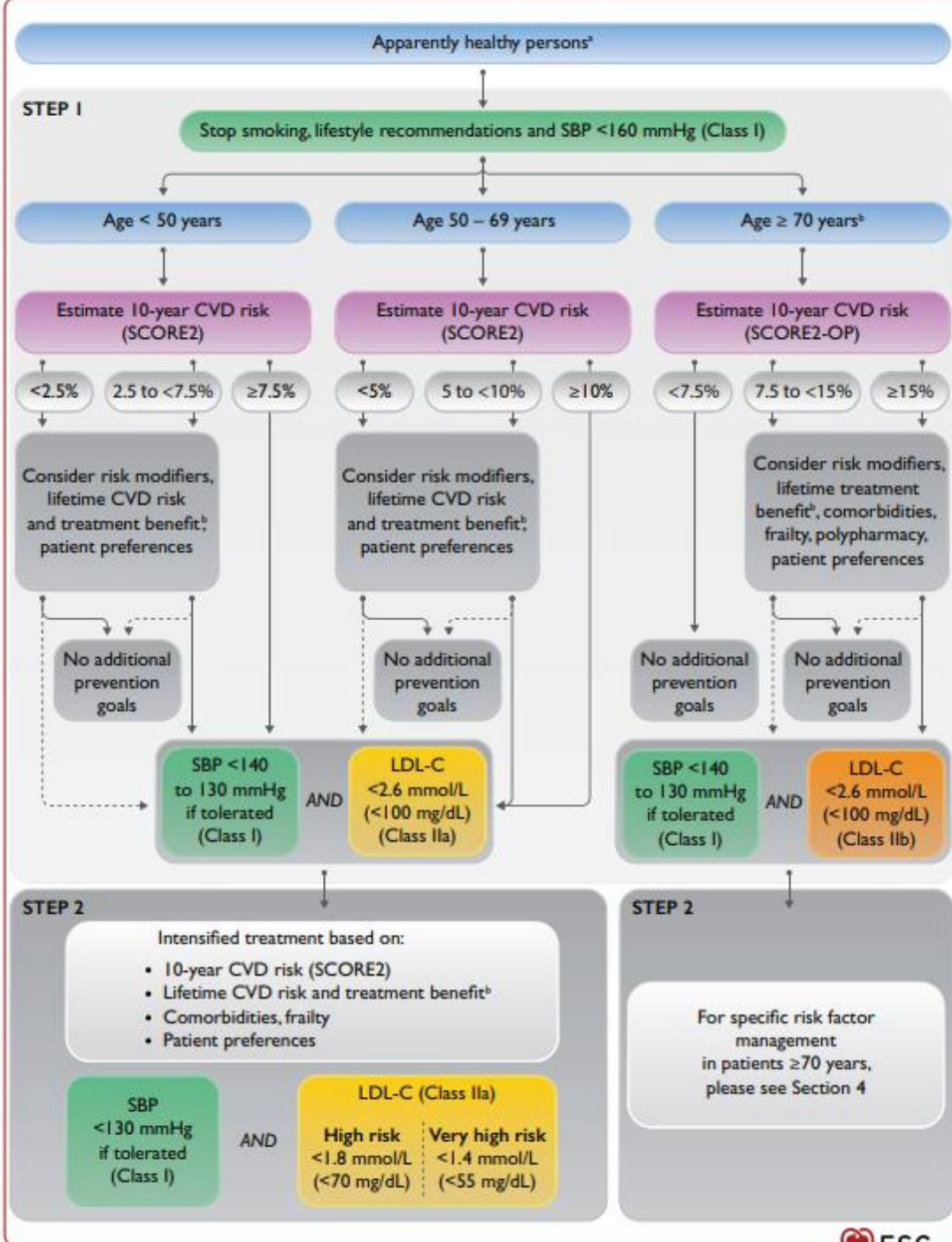
Stopping smoking, lifestyle recommendations, and SBP <160 mmHg are recommended for all (Figure 6). The 10-year CVD risk in relatively young, apparently healthy people is on average low, even in the presence of high risk factor levels, but the lifetime CVD risk is in these circumstances very high. In apparently healthy people <50 years of age, a

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30 Aug 2021

In apparently healthy people, the standard approach is to report absolute 10-year risk of a CVD event with SCORE2 or SCORE2-OP, which can be found at the ESC CVD Risk Calculator app (<https://www.escardio.org/Education/ESC-Prevention-of-CVD-Programme/Risk-assessment/esc-cvd-risk-calculation-app>) or at <http://www.heartscore.org> or <https://www.u-prevent.com>. In specific situations, one may opt for expressing risk in terms other than absolute 10-year risk. Examples of such situations include risks in young or very old people. In young people, lifetime risk might be more informative, as 10-year CVD risk is usually low even in the presence of risk factors. In older persons, specific risk estimation is required, tak-



Recommendations for physical activity

Recommendations	Class ^a	Level ^b
It is recommended for adults of all ages to strive for at least 150 - 300 min a week of moderate-intensity or 75 - 150 min a week of vigorous-intensity aerobic PA, or an equivalent combination thereof, to reduce all-cause mortality, CV mortality, and morbidity. ^{371,372}	I	A
It is recommended that adults who cannot perform 150 min of moderate-intensity PA a week should stay as active as their abilities and health condition allow. ^{373,374}	I	B
It is recommended to reduce sedentary time to engage in at least light activity throughout the day to reduce all-cause and CV mortality and morbidity. ³⁷⁵⁻³⁷⁷	I	B
Performing resistance exercise, in addition to aerobic activity, is recommended on 2 or more days per week to reduce all-cause mortality. ^{378,379}	I	B

Fysieke activiteit

Table 7 Classification of physical activity intensity and examples of absolute and relative intensity levels.

Absolute intensity			Relative intensity		
Intensity	MET ^a	Examples	%HR _{max}	RPE (Borg scale score)	Talk test
Light	1.1–2.9	Walking <4.7 km/h, light household work	57–63	10–11	
Moderate	3–5.9	Walking at moderate or brisk pace (4.1–6.5 km/h), slow cycling (15 km/h), painting/decorating, vacuuming, gardening (mowing lawn), golf (pulling clubs in trolley), tennis (doubles), ballroom dancing, water aerobics	64–76	12–13	Breathing is faster but compatible with speaking full sentences
Vigorous	≥6	Race-walking, jogging, or running, cycling >15 km/h, heavy gardening (continuous digging or hoeing), swimming laps, tennis (singles)	77–95	14–17	Breathing very hard, incompatible with carrying on a conversation comfortably

%HR_{max} = percentage of measured or estimated maximum heart rate (220–age); MET = metabolic equivalent of task; RPE = rating of perceived exertion (Borg-scale 6–20); VO₂ = oxygen consumption.

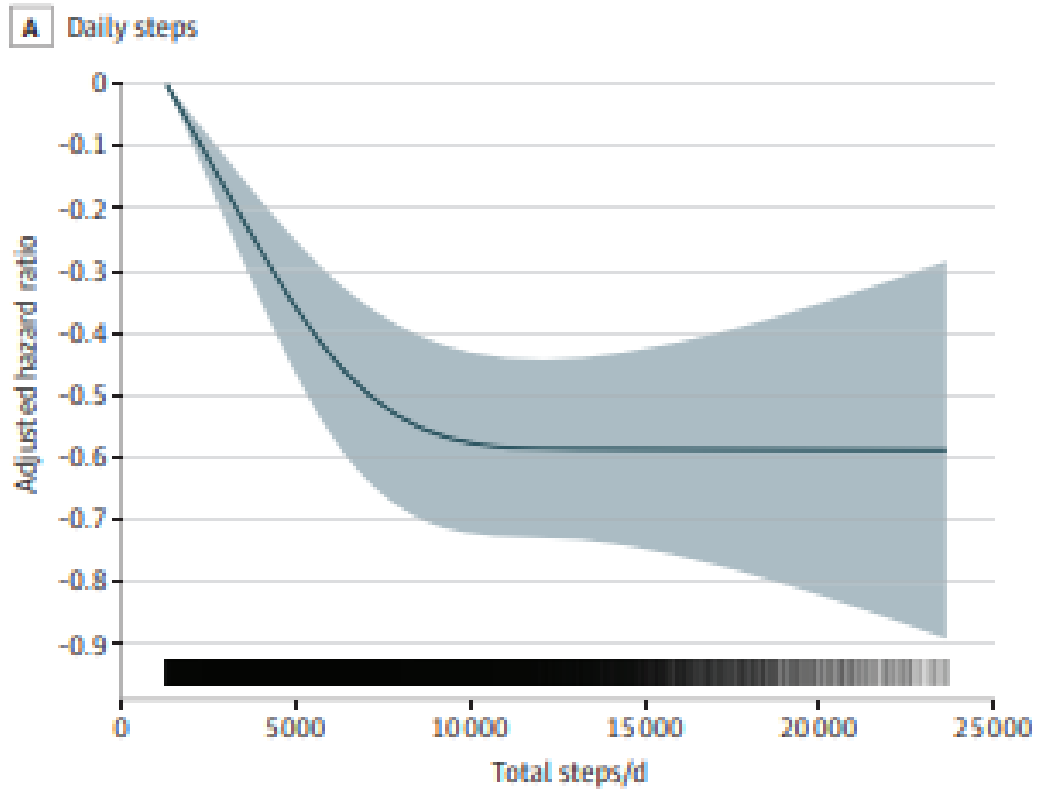
^aMET is estimated as the energy cost of a given activity divided by resting energy expenditure: 1 MET = 3.5 mL oxygen kg⁻¹ min⁻¹ VO₂.

Modified from³⁹²



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Dose-Response Associations Between Primary Exposures and All-Cause Mortality



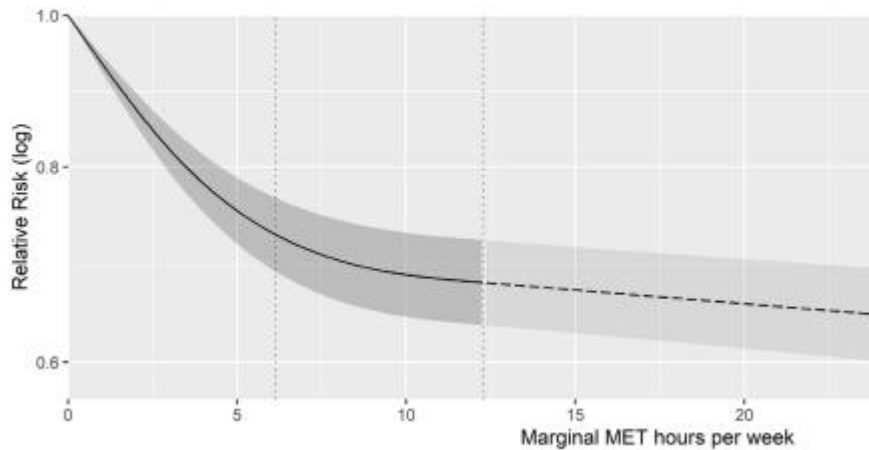
Fysieke activiteit

Del Pozo Cruz et al. JAMA Inter Med 2022

Fysieke activiteit

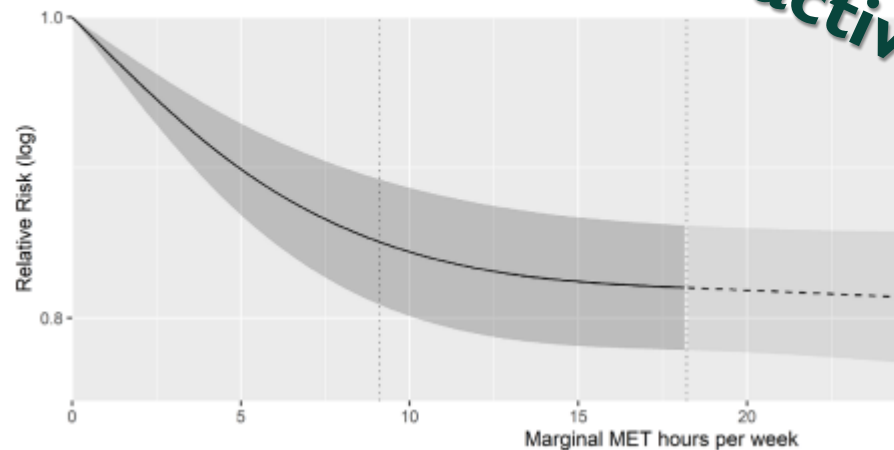
All-cause mortality

Number of entries: 50
Person-years: 163,415,543



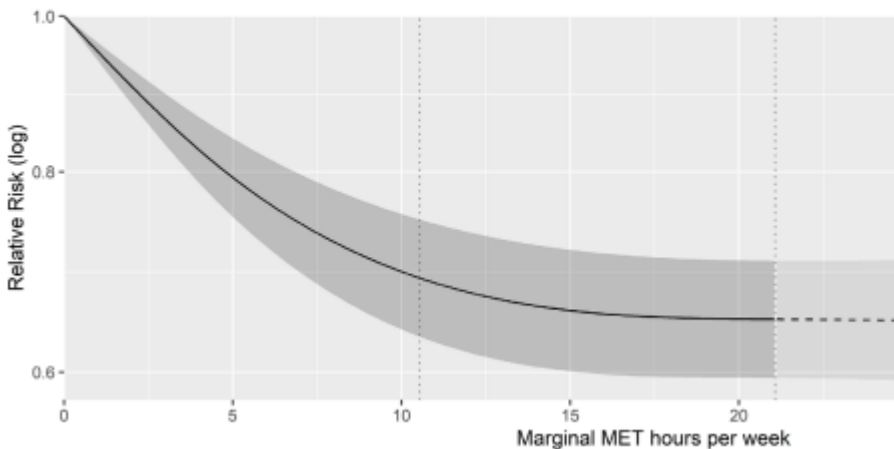
Cancer mortality

Number of entries: 24
Person-years: 24,077,682



Cardiovascular disease mortality

Number of entries: 29
Person-years: 25,886,430

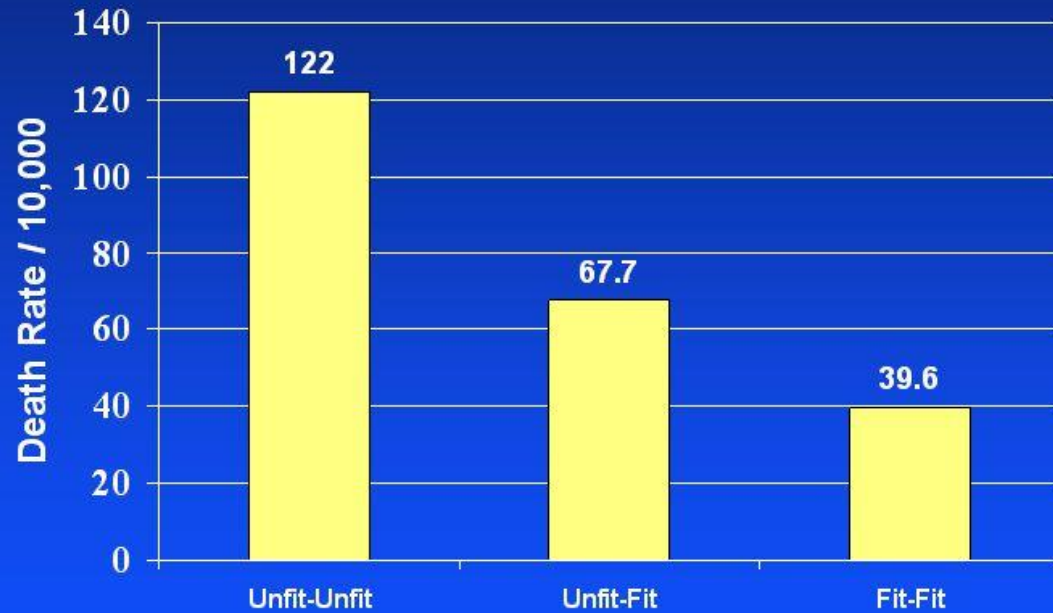


Garcia et al. Br J Sports Med 2023



Effect of Fitness on Survival

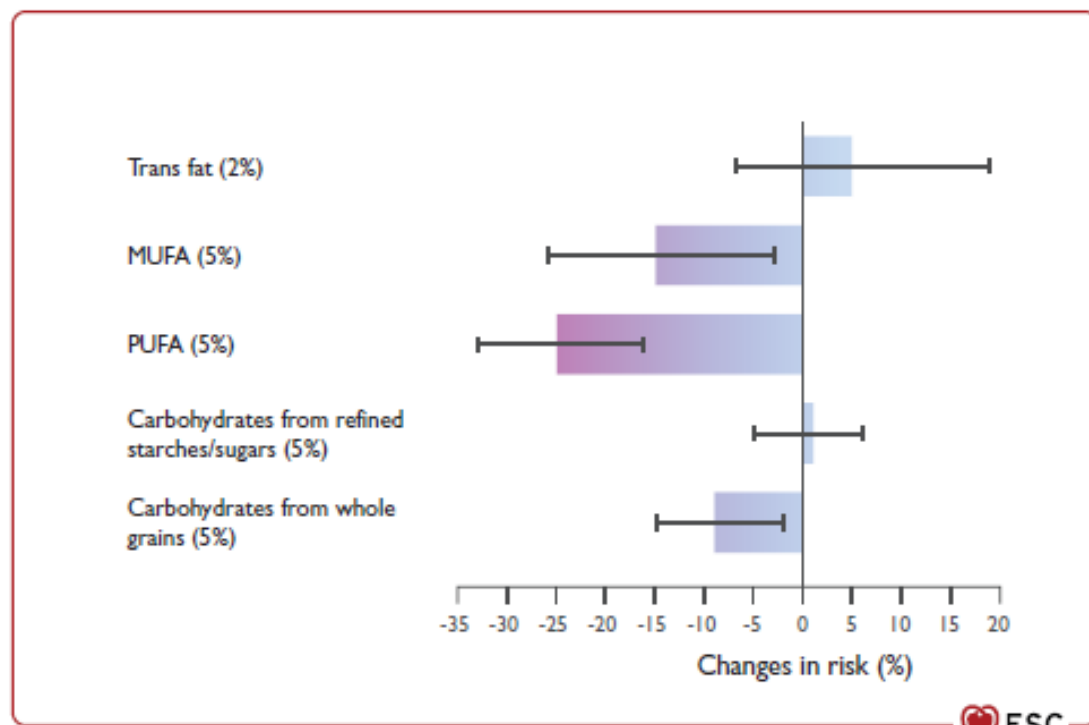
Fitness at Two Different Times



Blair JAMA 1989;262:2395

Fysieke activiteit

Voeding



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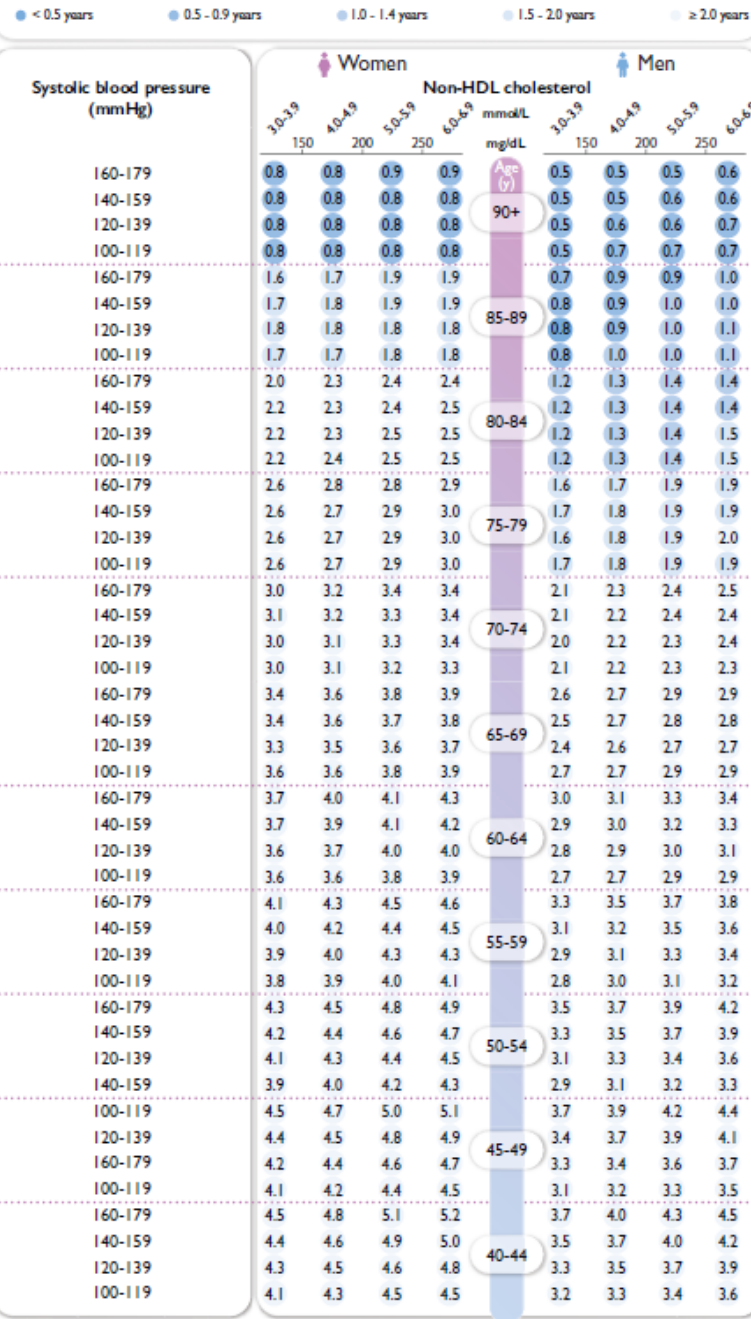
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Cigarette smoking is responsible for 50% of all avoidable deaths in smokers, with half of these due to ASCVD. A lifetime smoker has a 50% probability of dying due to smoking, and on average will lose 10 years of life.³⁵ The CVD risk in smokers <50 years of age is five-fold higher than in non-smokers.³⁶ Prolonged smoking is more hazardous for women than for men.³⁷ Worldwide, after high SBP, smoking is

4.5.1. Smoking cessation

Stopping smoking is potentially the most effective of all preventive measures, with substantial reductions in (repeat) myocardial infarctions or death.^{487,488} Lifetime gains in CVD-free years are substantial at all ages, and benefits are obviously even more substantial if other

LIFE-CVD model
CVD-free lifetime gain from smoking cessation (in years)



Roken

LIFE-CVD model
CVD-free lifetime gain from 10 mmHg
Systolic Blood Pressure reduction (in years)

- < 0.5 years
- 0.5 - 0.9 years
- 1.0 - 1.4 years
- 1.5 - 2.0 years
- > 2.0 years

Women

Men

Non-smoking

Smoking

Non-smoking

Smoking

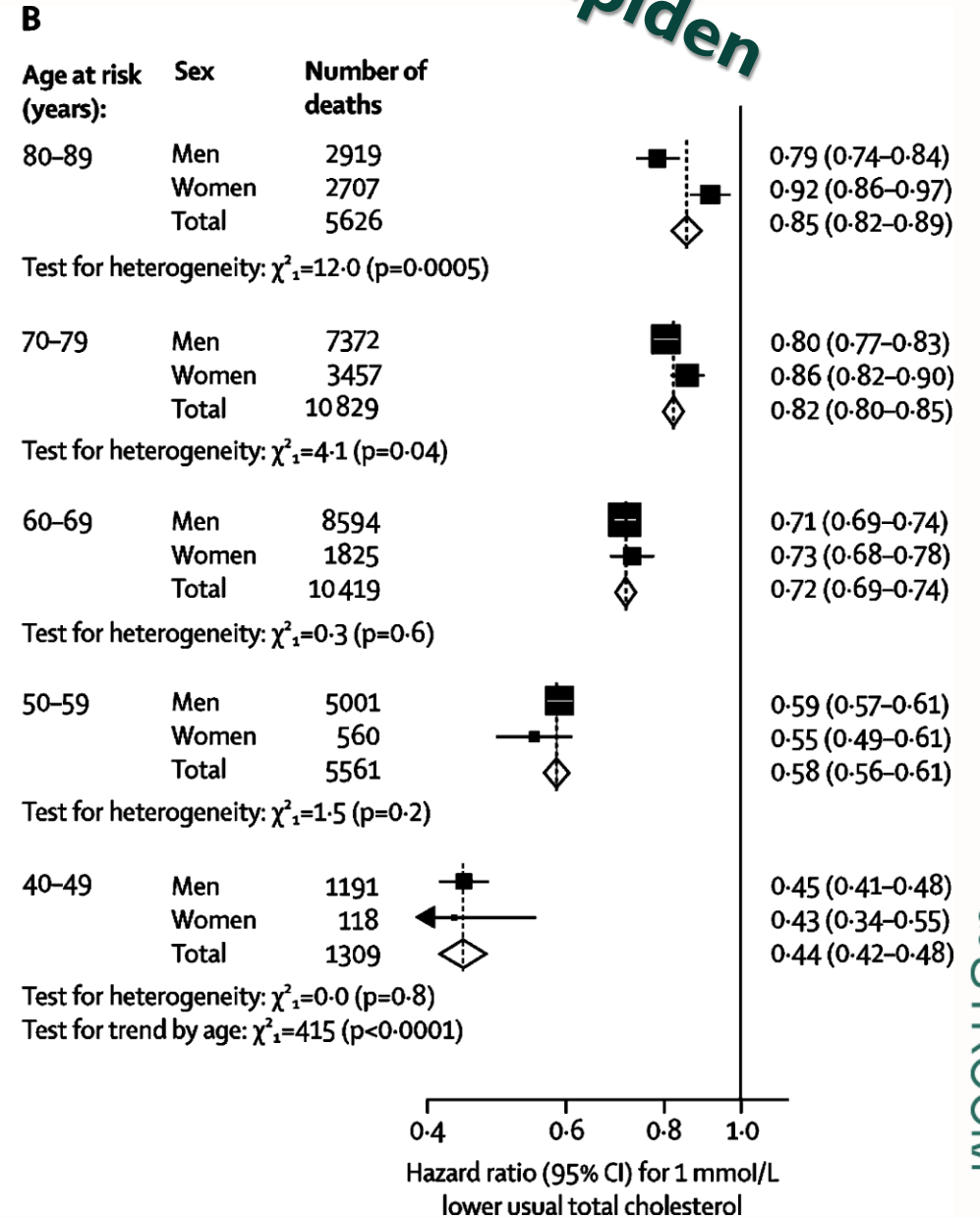
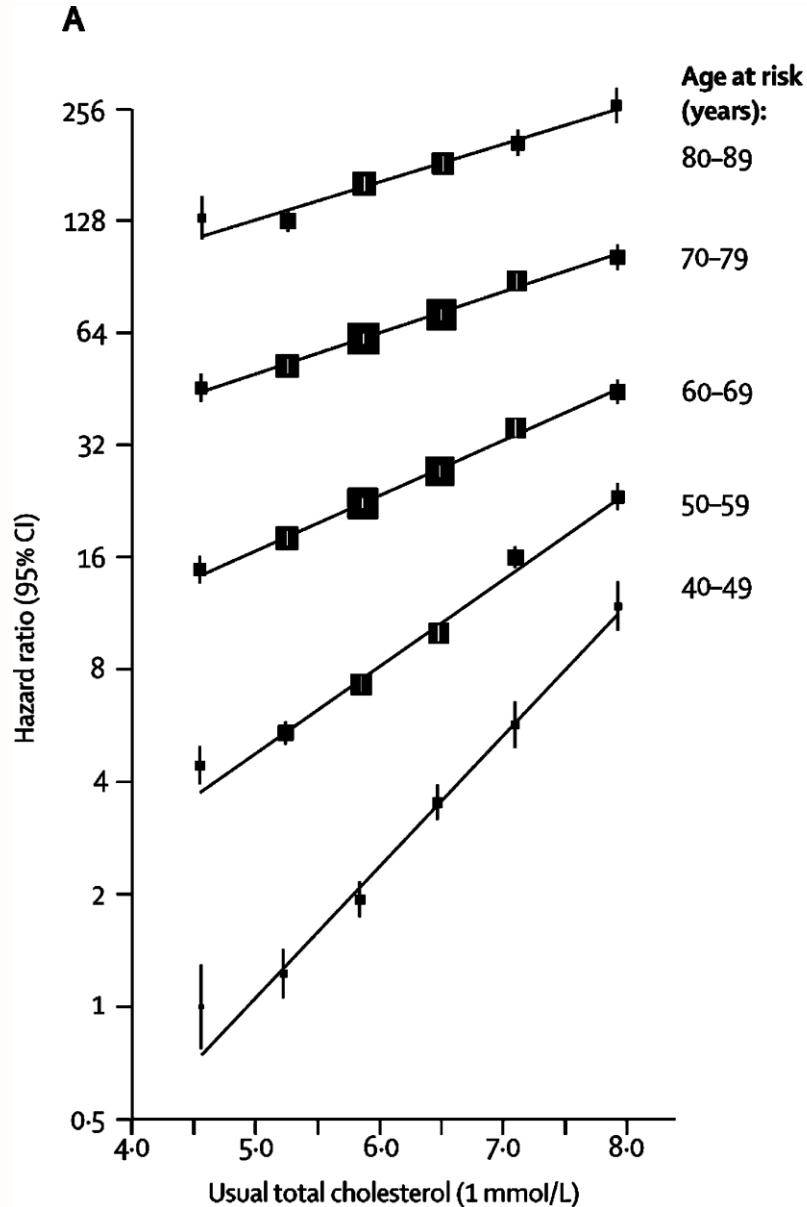
Non-HDL cholesterol

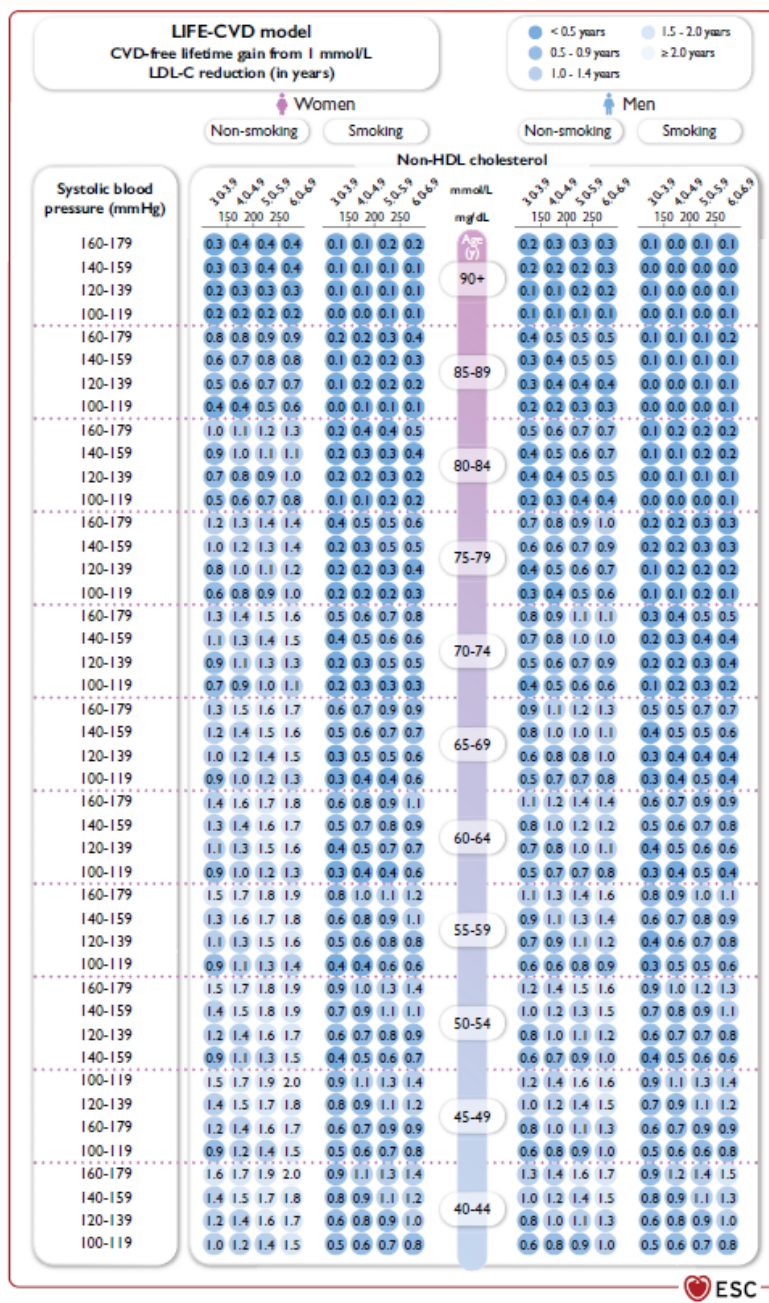
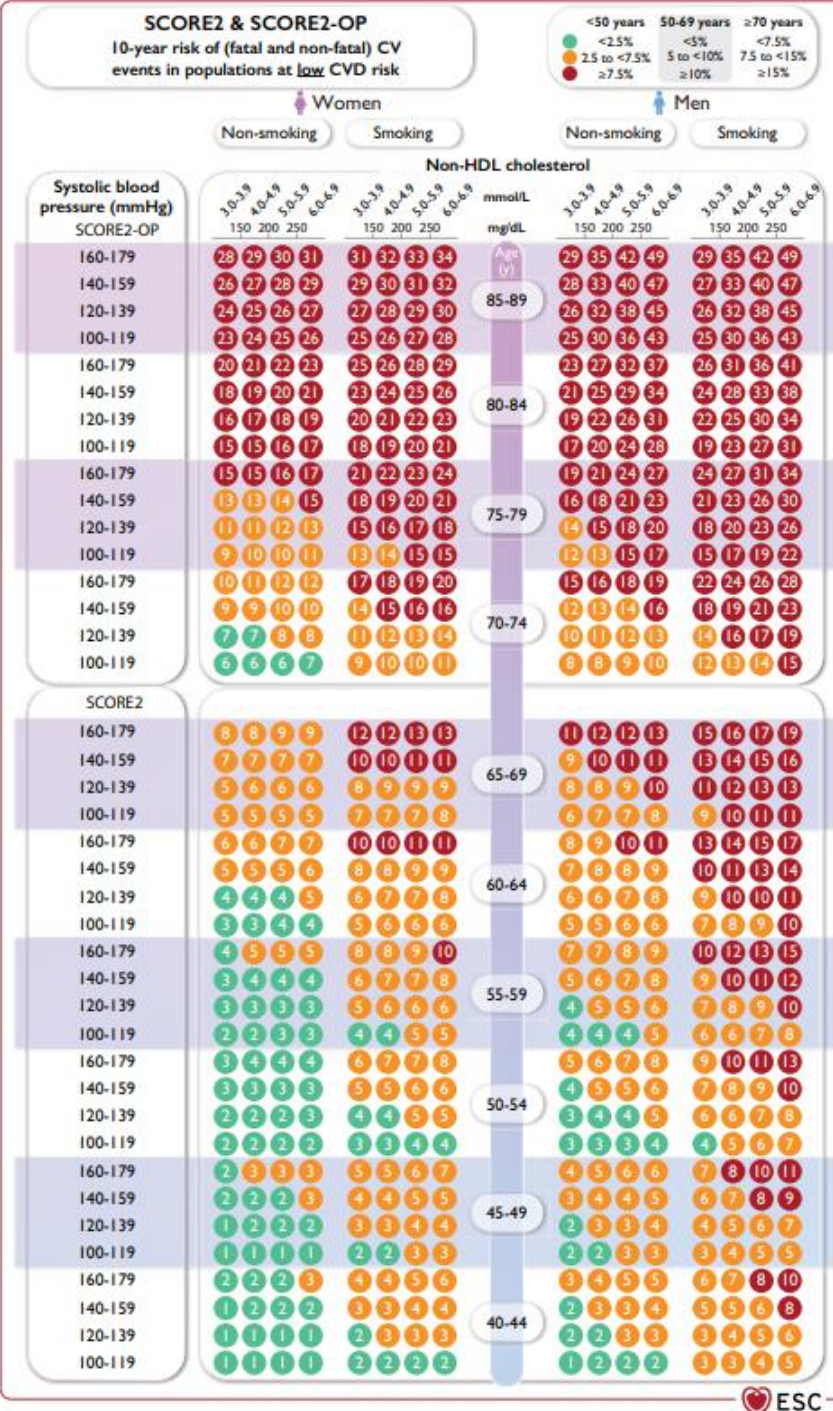
Systolic blood pressure (mmHg)	Non-HDL cholesterol								Age (y)	Non-HDL cholesterol								
	mmol/L				mg/dL	mmol/L				mg/dL	mmol/L							
	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9		3.0-3.9	4.0-4.9	5.0-5.9			6.0-6.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9			
	150	200	250	150	200	250	150	200	250	150	200	250	150	200	250	150	200	250
160-179	0.3	0.3	0.4	0.4	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.0	0.0	0.1	0.1
140-159	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0
120-139	0.2	0.3	0.3	0.3	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.1
100-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
160-179	0.7	0.8	0.8	0.8	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.1	0.1	0.1	0.2	0.2
140-159	0.6	0.6	0.7	0.8	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.1	0.1	0.1	0.1	0.1
120-139	0.4	0.5	0.6	0.6	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.0	0.0	0.1	0.1	0.1
100-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
160-179	0.9	1.0	1.1	1.2	0.2	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.1	0.2	0.2	0.2	0.2
140-159	0.8	0.9	1.0	1.0	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.6	0.1	0.1	0.2	0.1	0.1
120-139	0.6	0.7	0.8	0.9	0.2	0.1	0.3	0.2	0.2	0.3	0.4	0.5	0.5	0.0	0.1	0.1	0.1	0.1
100-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
160-179	1.1	1.2	1.3	1.3	0.3	0.5	0.5	0.5	0.5	0.6	0.7	0.8	0.9	0.2	0.2	0.3	0.3	0.3
140-159	0.9	1.1	1.2	1.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.2	0.2	0.3	0.3	0.3
120-139	0.7	0.9	1.0	1.1	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.6	0.6	0.1	0.2	0.2	0.2	0.2
100-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
160-179	1.2	1.3	1.4	1.5	0.4	0.5	0.7	0.7	0.7	0.8	1.0	1.0	1.0	0.3	0.4	0.5	0.5	0.5
140-159	1.0	1.3	1.4	1.5	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.9	0.9	0.2	0.3	0.4	0.4	0.4
120-139	0.8	1.0	1.1	1.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.1	0.2	0.3	0.3	0.3
100-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
160-179	1.2	1.3	1.5	1.5	0.5	0.7	0.8	0.9	0.9	0.9	1.0	1.1	1.1	0.5	0.5	0.7	0.6	0.6
140-159	1.0	1.3	1.4	1.5	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	0.3	0.5	0.5	0.5	0.5
120-139	0.9	1.1	1.2	1.3	0.3	0.4	0.5	0.5	0.5	0.5	0.7	0.8	0.9	0.2	0.4	0.4	0.4	0.4
100-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
160-179	1.3	1.4	1.5	1.6	0.6	0.7	0.9	1.0	1.0	1.0	1.1	1.2	1.3	0.6	0.7	0.8	0.8	0.8
140-159	1.2	1.3	1.4	1.5	0.5	0.6	0.7	0.8	0.8	0.8	0.9	1.1	1.1	0.5	0.5	0.7	0.7	0.7
120-139	1.0	1.1	1.3	1.4	0.4	0.4	0.6	0.6	0.6	0.6	0.7	0.9	1.0	0.4	0.4	0.5	0.5	0.5
100-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
160-179	1.3	1.5	1.6	1.7	0.7	0.9	1.0	1.1	1.1	1.1	1.2	1.3	1.4	0.7	0.9	0.9	1.0	1.0
140-159	1.1	1.4	1.6	1.6	0.6	0.7	0.8	1.0	1.0	1.0	1.2	1.2	1.2	0.5	0.6	0.8	0.9	0.9
120-139	1.0	1.2	1.4	1.5	0.4	0.5	0.7	0.7	0.7	0.7	0.8	1.0	1.0	0.4	0.5	0.6	0.7	0.7
100-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
160-179	1.3	1.5	1.7	1.7	0.8	1.0	1.1	1.2	1.2	1.2	1.3	1.4	1.5	0.8	0.9	1.0	1.2	1.2
140-159	1.3	1.4	1.6	1.7	0.6	0.8	1.0	1.0	1.0	1.0	1.1	1.2	1.3	0.7	0.7	0.8	1.0	1.0
120-139	1.1	1.2	1.4	1.5	0.5	0.6	0.7	0.8	0.8	0.8	0.9	1.0	1.1	0.5	0.6	0.7	0.7	0.7
140-159	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
100-119	1.3	1.6	1.7	1.8	0.8	1.0	1.2	1.3	1.3	1.3	1.5	1.5	1.5	0.8	1.0	1.2	1.3	1.3
120-139	1.3	1.4	1.6	1.6	0.7	0.8	1.0	1.1	1.1	1.1	1.3	1.3	1.3	0.7	0.8	1.0	1.1	1.1
160-179	1.1	1.2	1.4	1.5	0.5	0.7	0.8	0.8	0.8	0.8	0.9	1.0	1.2	0.6	0.7	0.8	0.8	0.8
100-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
160-179	1.4	1.6	1.7	1.8	0.8	1.0	1.2	1.3	1.3	1.3	1.4	1.6	1.6	0.9	1.1	1.3	1.4	1.4
140-159	1.3	1.4	1.6	1.7	0.7	0.8	1.0	1.1	1.1	1.1	1.3	1.4	1.4	0.7	0.9	1.0	1.2	1.2
120-139	1.1	1.3	1.4	1.5	0.6	0.7	0.8	0.9	0.9	0.9	1.0	1.2	1.2	0.6	0.7	0.8	0.9	0.9
100-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

BD-behandeling

Leeftijd-specifiek verband tussen totaal Ch en CV-sterfte

Lancet 2007





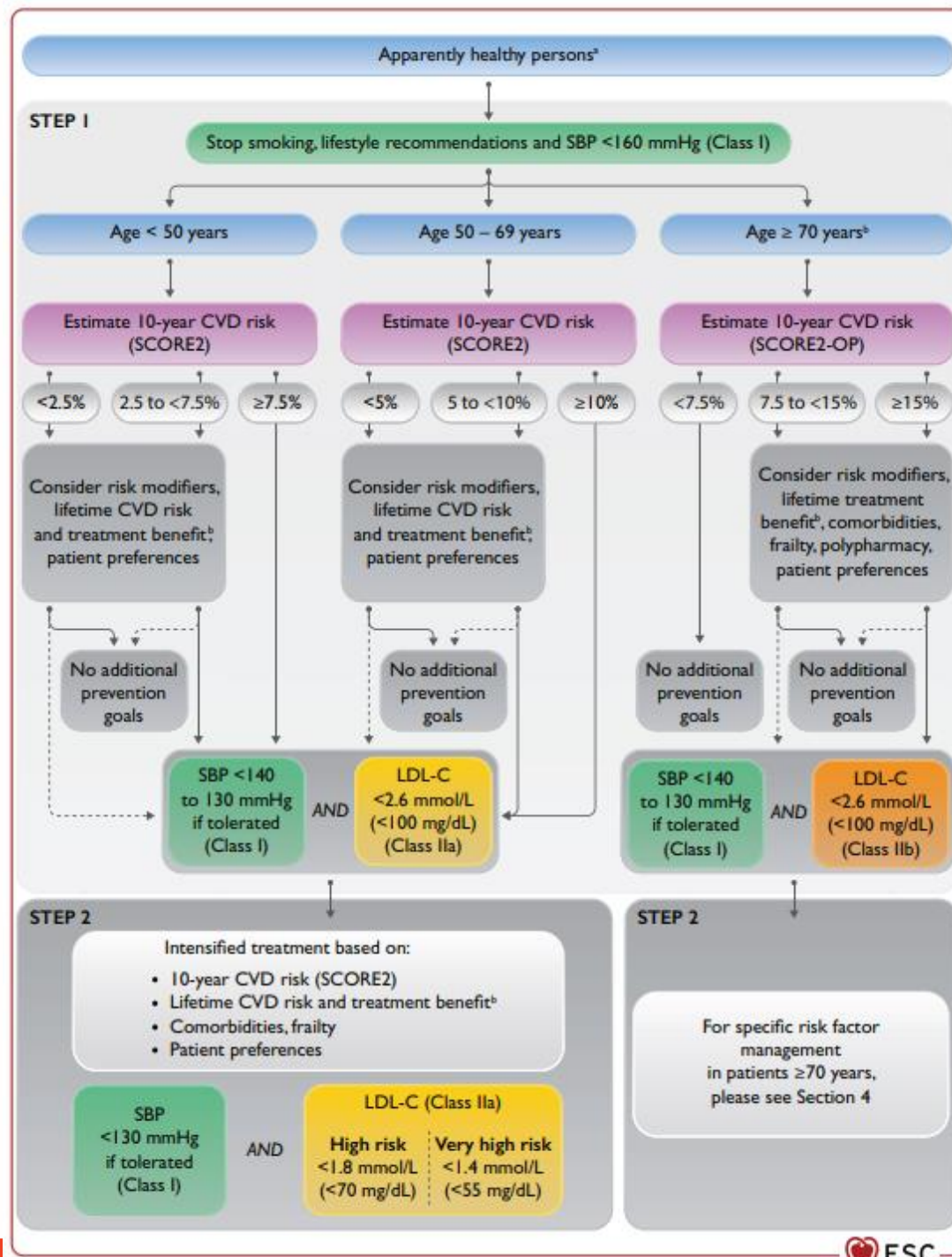
Lipiden

Figure 12 Average years-free-of-cardiovascular disease gained per 1 mmol/L (40 mg/dL) low-density lipoprotein cholesterol reduction in apparently healthy persons. The model is currently validated for low- and moderate-risk countries. Lifetime benefit of 1 mmol/L LDL-C lowering for apparently healthy persons, based on the following risk factors: age, sex, current smoking, SBP, and non-HDL-C. The lifetime benefit is expressed as 'years of median life expectancy free from myocardial infarction or stroke' gained from 1 mmol/L LDL-C lowering. For 2 mmol/L LDL-C lowering, the average effect is


Recommendations for the treatment of dyslipidaemias in older people (≥ 70 years).

Recommendations	Class ^a	Level ^b
Treatment with statins is recommended for older people with ASCVD in the same way as for younger patients. ^{5,38,5,39}	I	A
Initiation of statin treatment for primary prevention in older people aged ≥ 70 may be considered, if at high risk or above. ^{5,38,5,39}	IIb	B
It is recommended that the statin is started at a low dose if there is significant renal impairment and/or the potential for drug interactions.	I	C

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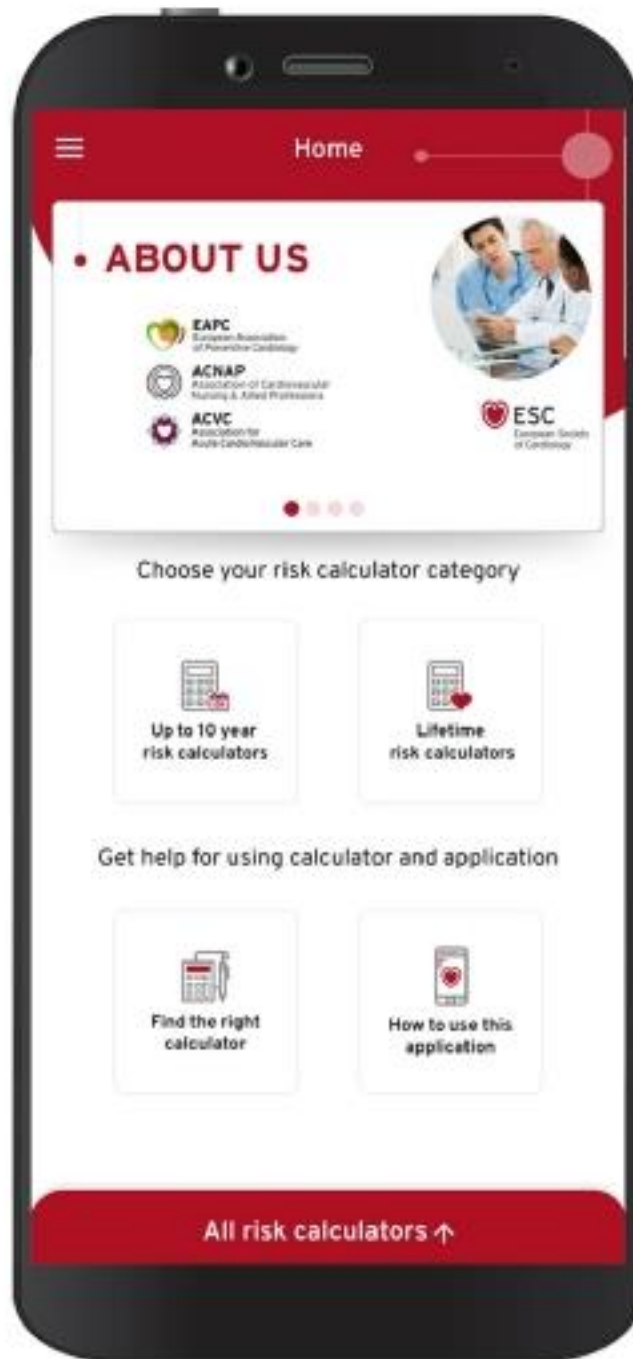


Low-Density Lipoprotein Cholesterol Is Predominantly Associated With Atherosclerotic Cardiovascular Disease Events in Patients With Evidence of Coronary Atherosclerosis: The Western Denmark Heart Registry

Martin Bødtker Mortensen , Omar Dzaye, Hans Erik Bøtker, Jesper Møller Jensen, Michael Maeng, Jacob Fog Bentzon, Helle Kanstrup, Henrik Toft Sørensen, Jonathon Leipsic, Ron Blankstein, Khurram Nasir, Michael J. Blaha and Bjarne Linde Nørgaard

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During a median follow-up of 4.3 years, 552 patients experienced a first ASCVD event. In the overall population, LDL-C (per 38.7 mg/dL increase) was associated with ASCVD events occurring during follow-up (adjusted hazard ratio [aHR], 1.14 [95% CI, 1.04–1.24]). When stratified by the presence or absence of baseline CAC, LDL-C was only associated with ASCVD in the 10 792/23 132 patients (47%) with CAC>0 (aHR, 1.18 [95% CI, 1.06–1.31]); no association was observed among the 12 340/23 132 patients (53%) with CAC=0 (aHR, 1.02 [95% CI, 0.87–1.18]). Similarly, a very high LDL-C level (>193 mg/dL) versus LDL-C <116 mg/dL was associated with ASCVD in patients with CAC>0 (aHR, 2.42 [95% CI, 1.59–3.67]) but not in those without CAC (aHR, 0.92 [0.48–1.79]). In patients with CAC=0, diabetes, current smoking, and low high-density lipoprotein cholesterol levels were associated with future ASCVD events. The principal findings were replicated in the Multi-Ethnic Study of Atherosclerosis.



Samenvatting

Primaire preventie >> secundaire preventie

Roken is zeer krachtige risicofactor

Combinatie van risicofactoren

Voor geïsoleerde hyperCH >> beeldvorming en tabellen

Gedeelde beslissing



Ziekenhuis aan de Stroom
[ZAS] is het netwerk van
ZNA en GZA Ziekenhuizen

