1. WFSV Kongress Medizin am Arbeitsplatz

„Betriebliche Gesundheit von Außen“

Dr. Johannes Koch
Facharzt für Innere Medizin
Arzt für Allgemeinmedizin

Gesundheit im Alter

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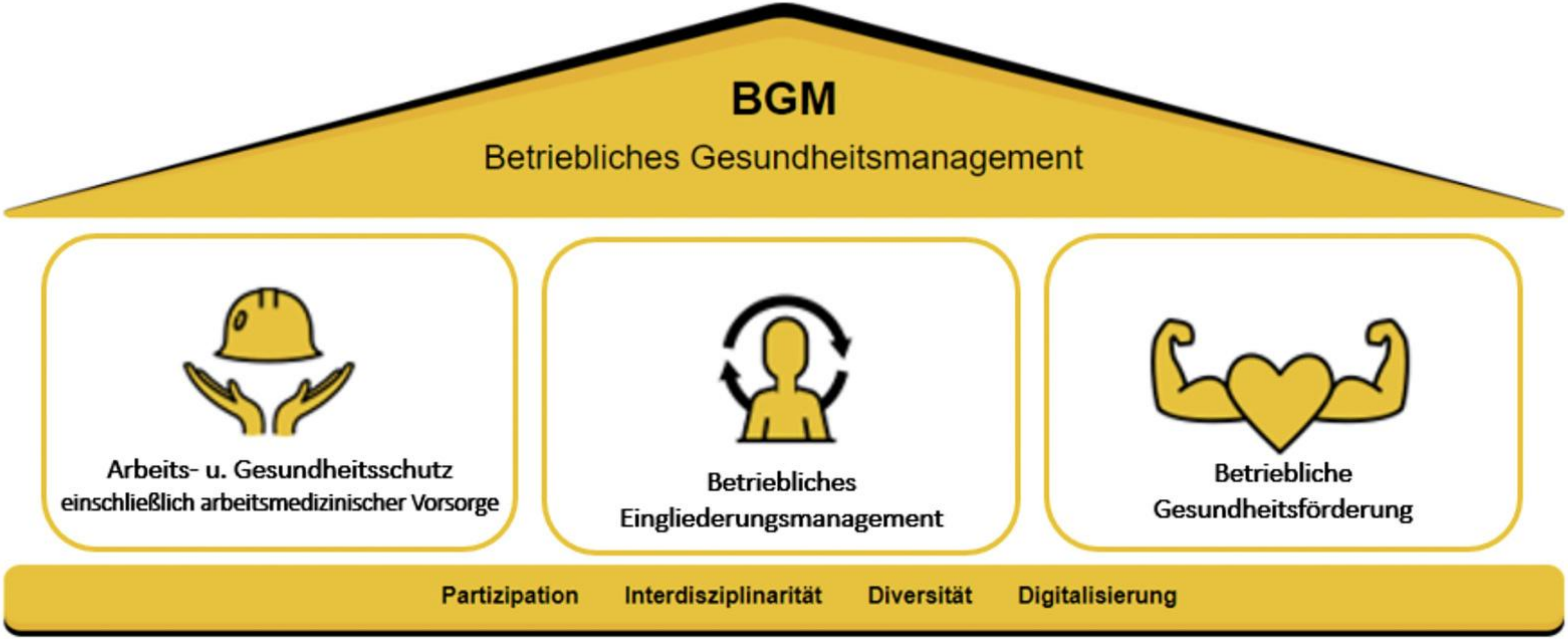
Fit im Alter

Gesund im Arbeitsprozess



BGM

Betriebliches Gesundheitsmanagement

Arbeits- u. Gesundheitsschutz
einschließlich arbeitsmedizinischer Vorsorge

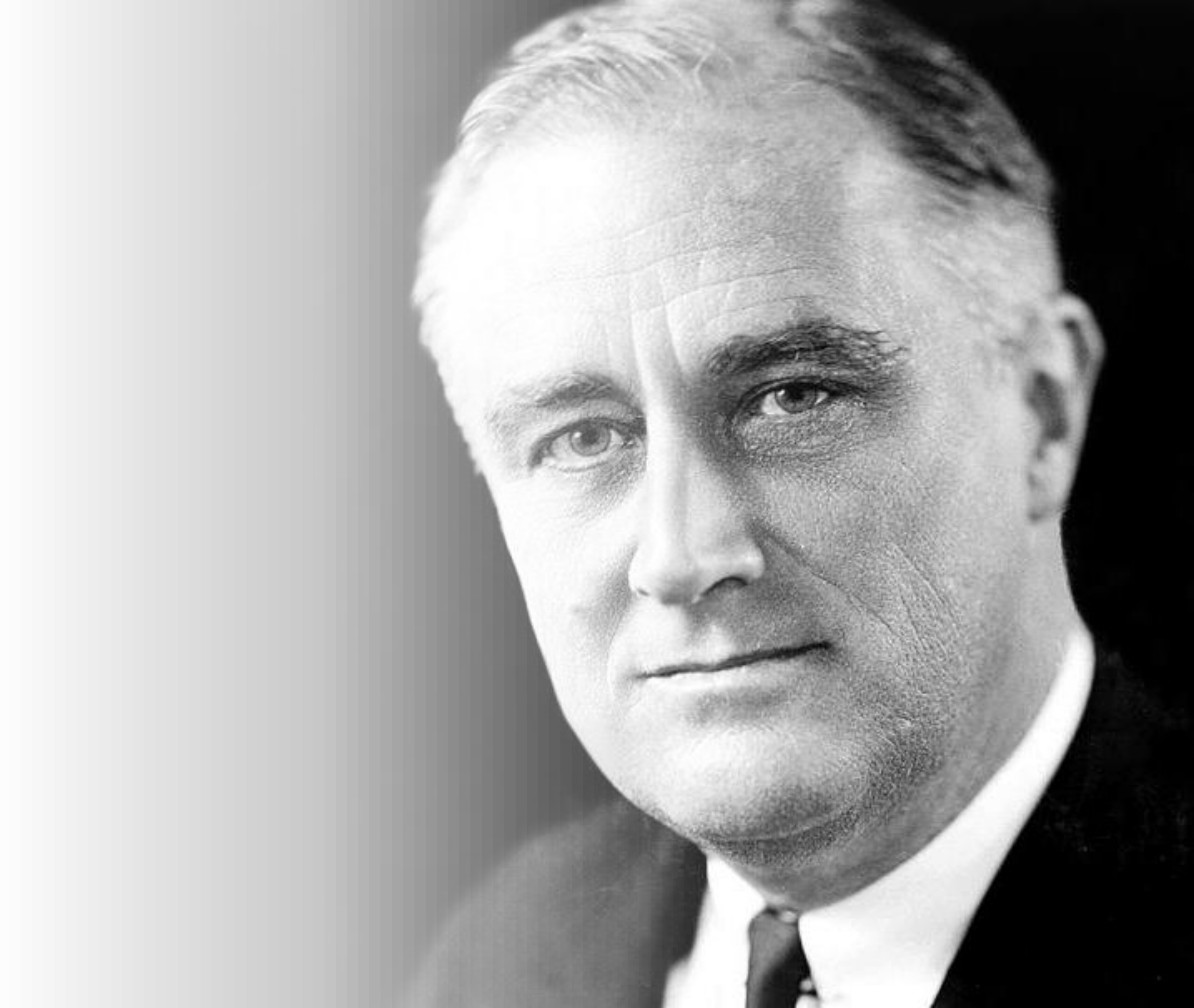
Betriebliches
Eingliederungsmanagement

Betriebliche
Gesundheitsförderung

Partizipation Interdisziplinarität Diversität Digitalisierung

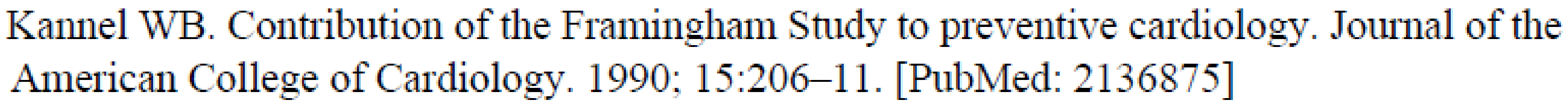
Franklin D. Roosevelt

Präsident der Vereinigten Staaten von Amerika von 1932 - 1945



1940

- kardiovaskuläre Erkrankungen häufigste Todesursache in den USA
- verantwortlich für jede zweiten Todesfall



Kannel WB. Contribution of the Framingham Study to preventive cardiology. Journal of the American College of Cardiology. 1990; 15:206–11. [PubMed: 2136875]

- 1932: RR 140/100 mmHg
- 1940: RR 188/105 mmHg

Blutdruck 188/105 mmHg

„no more than normal for a man his age“

Bumgarner, J. The health of Presidents. Jefferson, N.C.: McFarland; 1994.

- 1932: RR 140/100 mmHg
- 1940: RR 188/105 mmHg
- 1944: RR 240/130 mmHg, Diagnose: Hypertonie, Herzschwäche, Therapie mit Phenobarbital, Salzreduktion, Digitalis

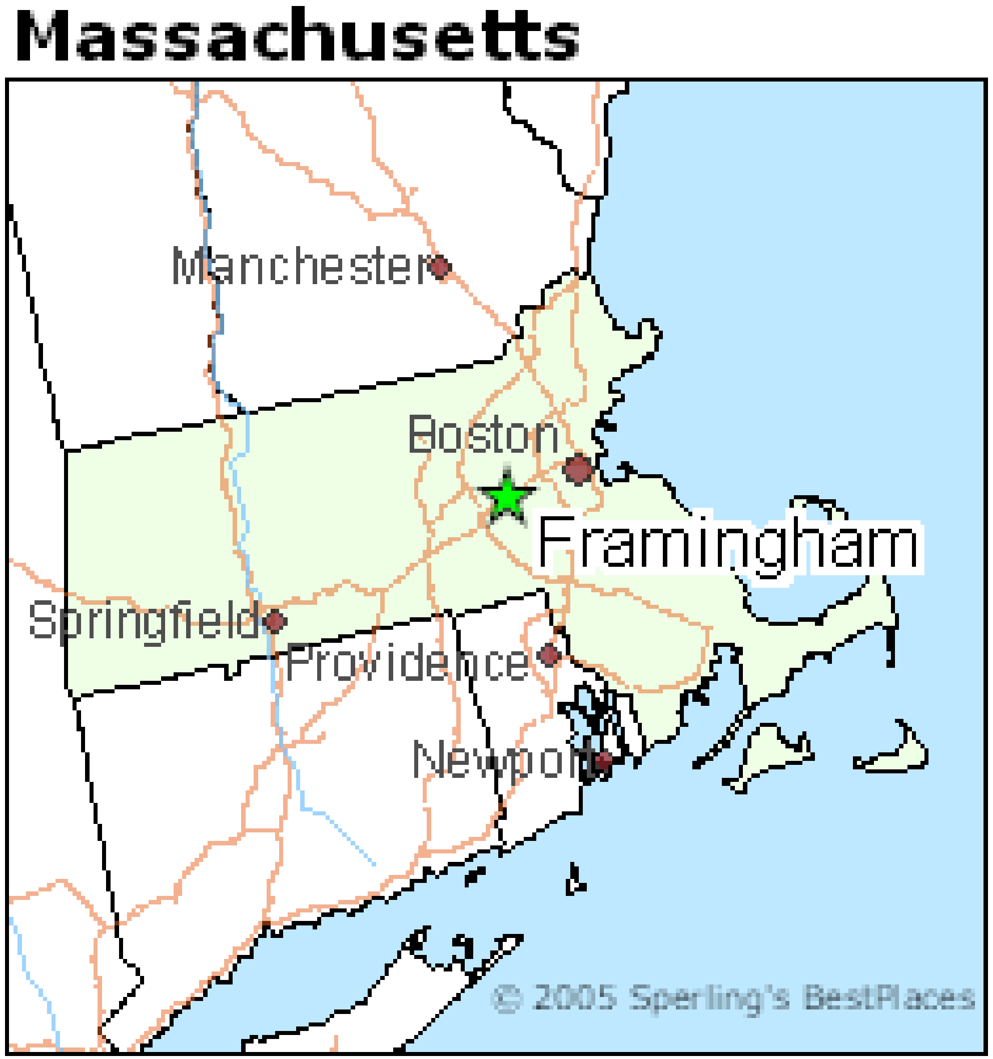
1945: RR 300/190, Tod durch Gehirnblutung

1948

- **National Heart Act**
- „…the Nation health is seriously threatend by diseases of the heart and circulation, including high blood pressure…“

1948

- Framingham Studie
  - epidemologische Studie


Massachusetts
Manchester
Boston
Framingham
Springfield
Providence
Newport
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Framingham Studie: 1948-2017

- Risikofaktoren für Herzkreislauferkrankungen
  - Blutdruck
  - Cholesterin
  - Rauchen
  - Übergewicht
- Konzept der Prävention
- Grenzwerte für Blutdruck und Cholesterin definiert

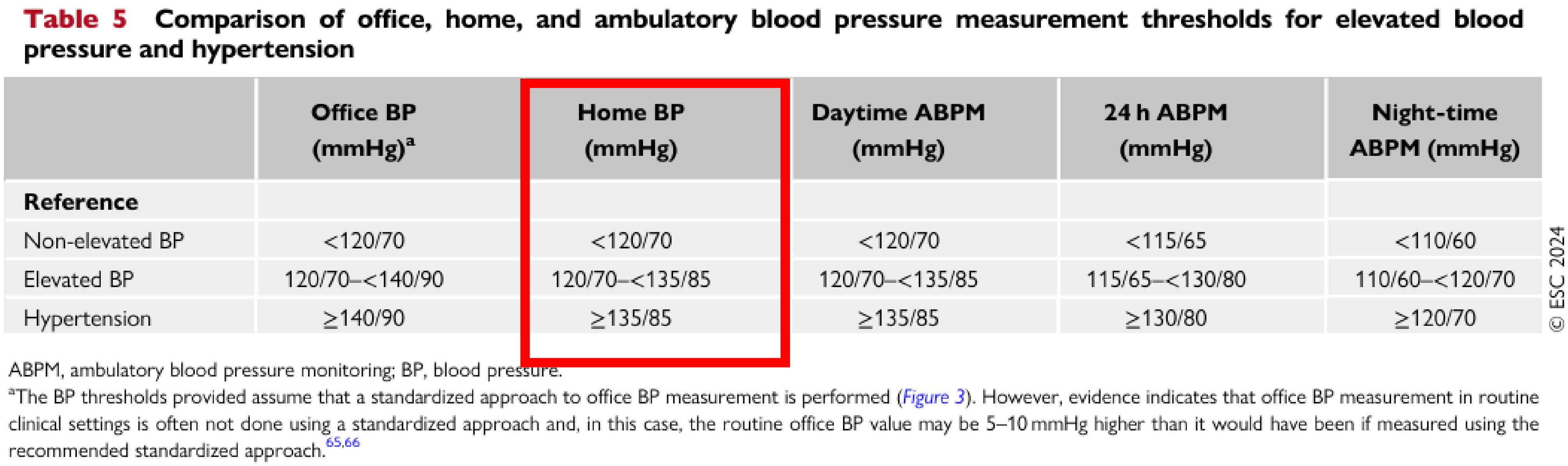

Table 5 Comparison of office, home, and ambulatory blood pressure measurement thresholds for elevated blood pressure and hypertension

	Office BP (mmHg)[a]	Home BP (mmHg)	Daytime ABPM (mmHg)	24 h ABPM (mmHg)	Night-time ABPM (mmHg)
Reference					
Non-elevated BP	<120/70	<120/70	<120/70	<115/65	<110/60
Elevated BP	120/70–<140/90	120/70–<135/85	120/70–<135/85	115/65–<130/80	110/60–<120/70
Hypertension	≥140/90	≥135/85	≥135/85	≥130/80	≥120/70

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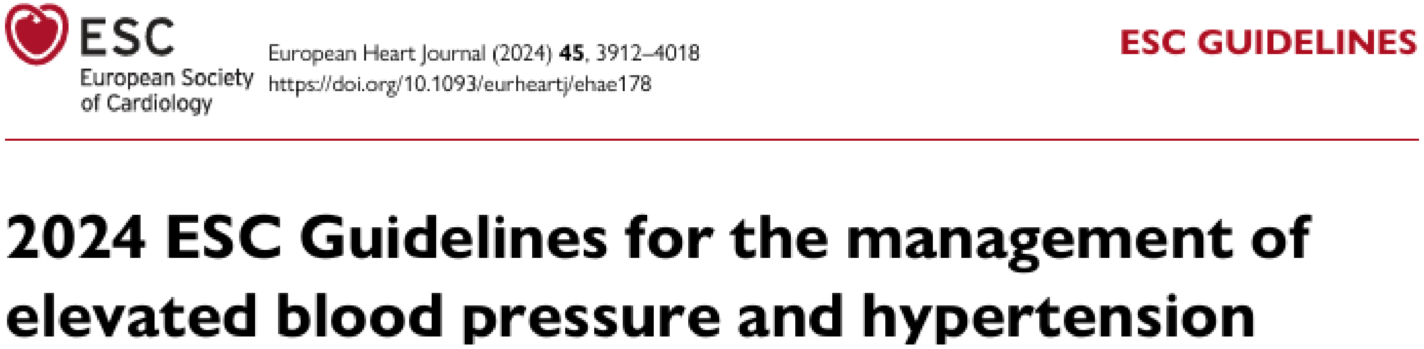
ABPM, ambulatory blood pressure monitoring; BP, blood pressure.

[a] The BP thresholds provided assume that a standardized approach to office BP measurement is performed (*Figure 3*). However, evidence indicates that office BP measurement in routine clinical settings is often not done using a standardized approach and, in this case, the routine office BP value may be 5–10 mmHg higher than it would have been if measured using the recommended standardized approach.[65,66]

Richtlinien 2024



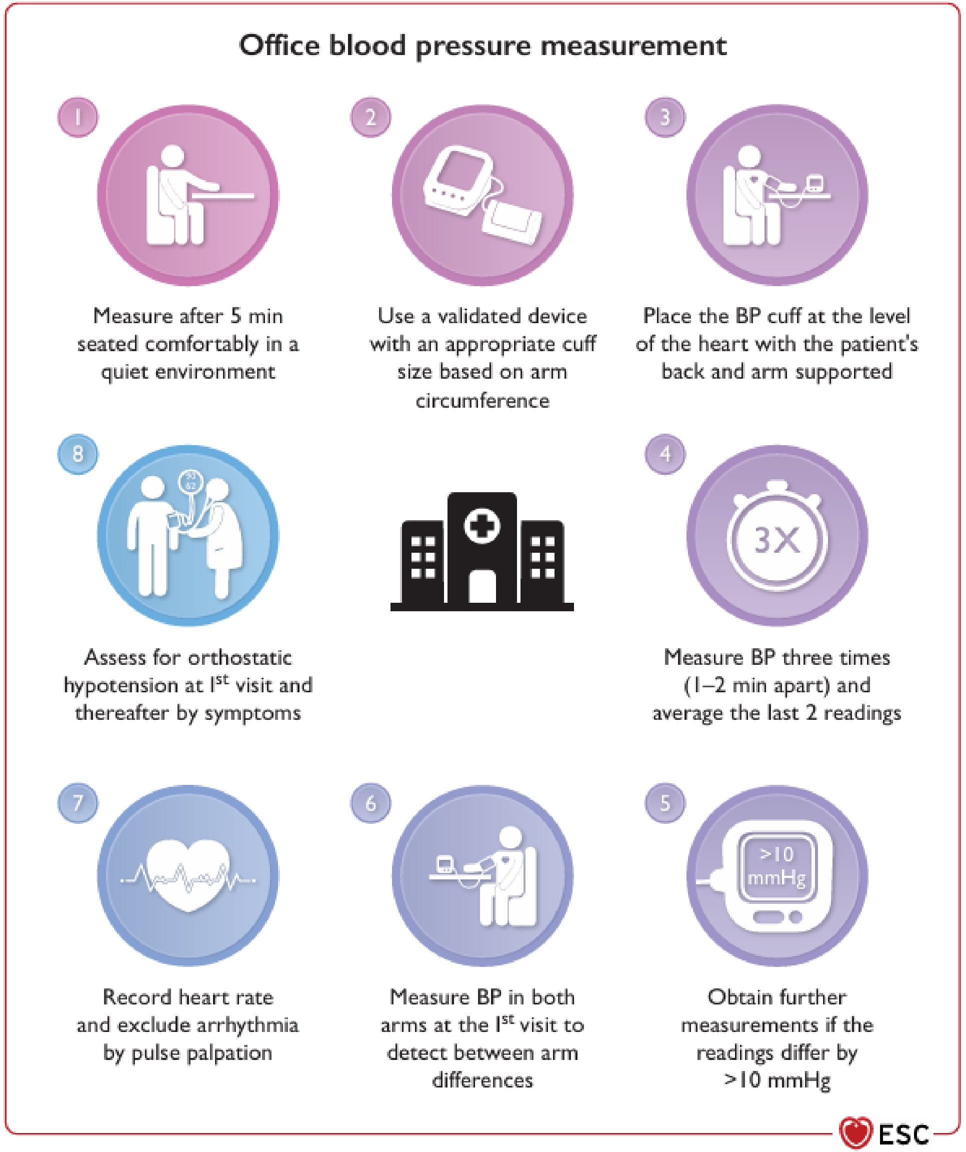
ESC
European Society
of Cardiology

European Heart Journal (2024) **45**, 3912–4018
https://doi.org/10.1093/eurheartj/ehae178

ESC GUIDELINES

2024 ESC Guidelines for the management of elevated blood pressure and hypertension

< 40 Jahre – Blutdruckmessung alle 3 Jahre
> 40 Jahre – Blutdruckmessung einmal jährlich



Office blood pressure measurement

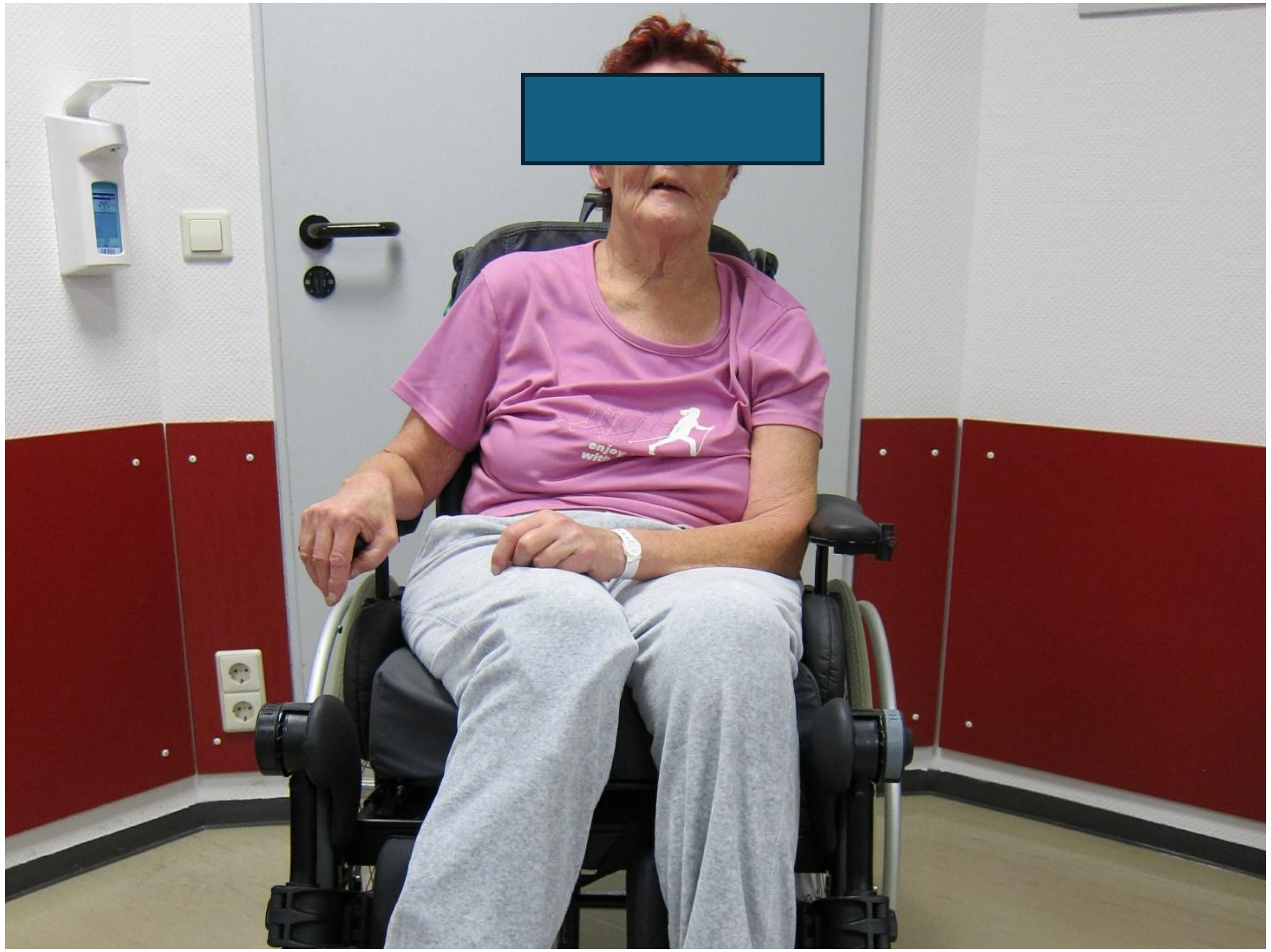
1. Measure after 5 min seated comfortably in a quiet environment
2. Use a validated device with an appropriate cuff size based on arm circumference
3. Place the BP cuff at the level of the heart with the patient's back and arm supported
4. Measure BP three times (1–2 min apart) and average the last 2 readings
5. Obtain further measurements if the readings differ by >10 mmHg
6. Measure BP in both arms at the 1st visit to detect between arm differences
7. Record heart rate and exclude arrhythmia by pulse palpation
8. Assess for orthostatic hypotension at 1st visit and thereafter by symptoms

ESC

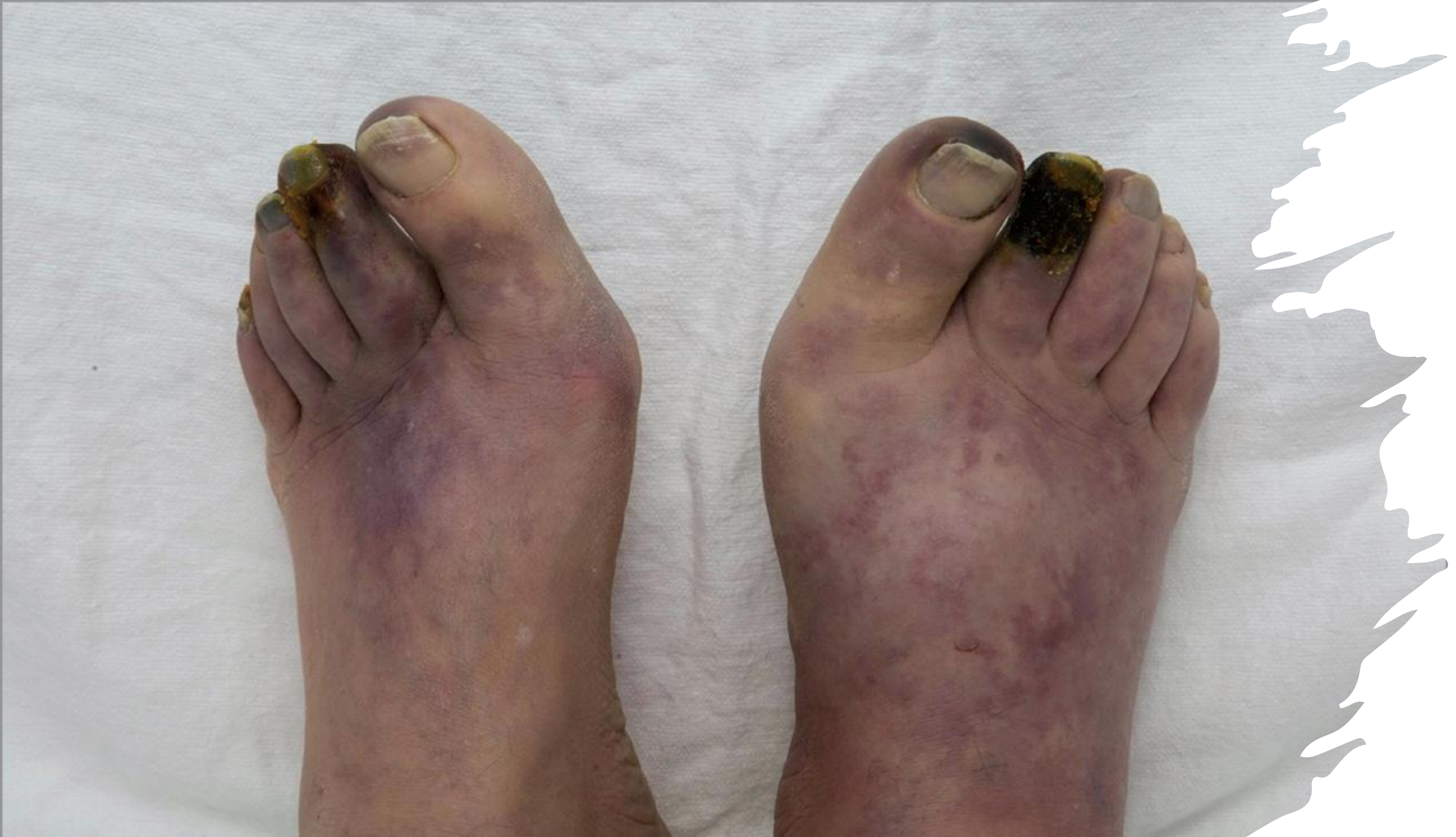
Rauchen
hohes Cholesterin
hoher Blutdruck

Arteriosklerose =
Gefäßverkalkung

Herzinfarkt

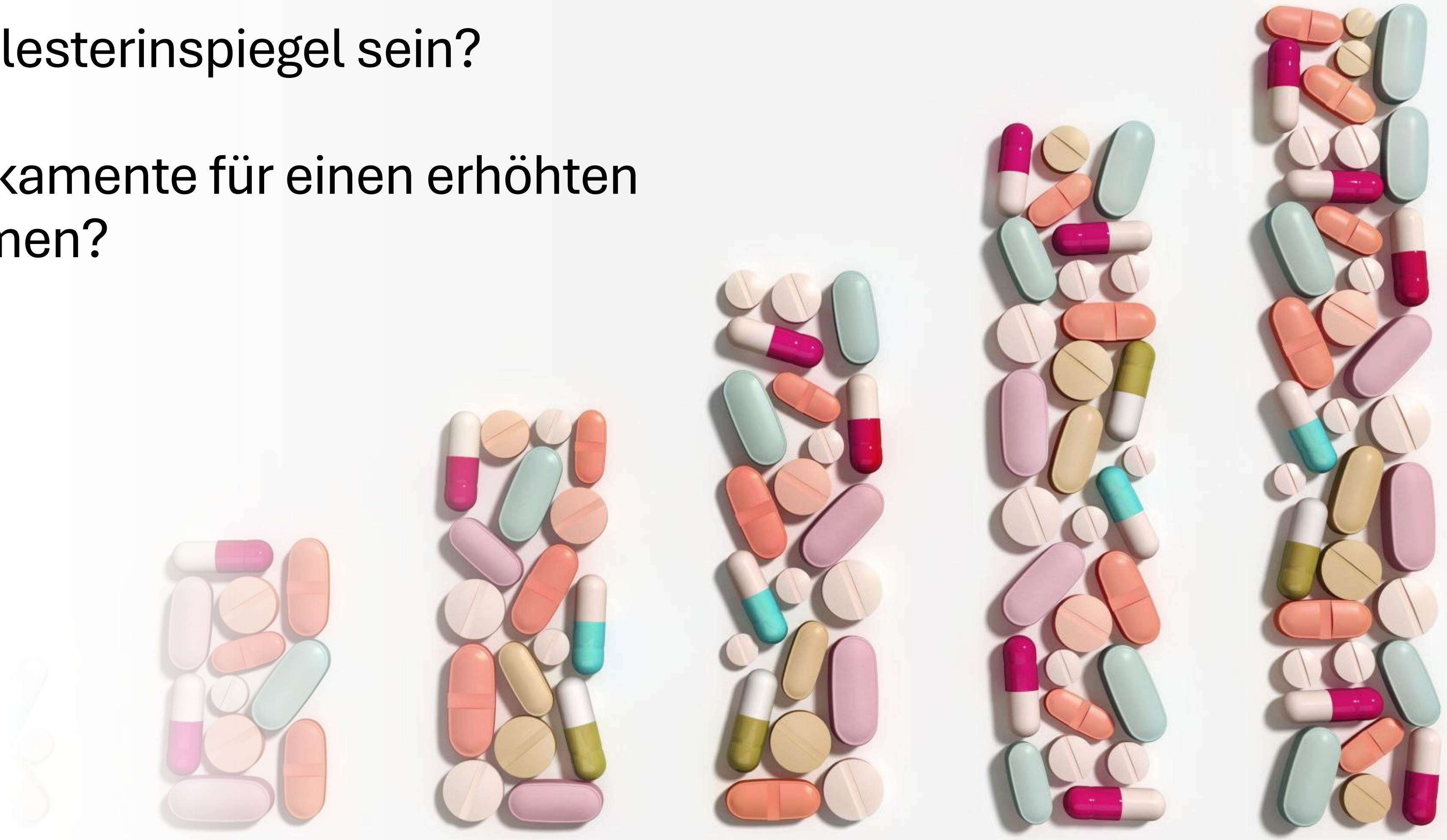


[redacted]



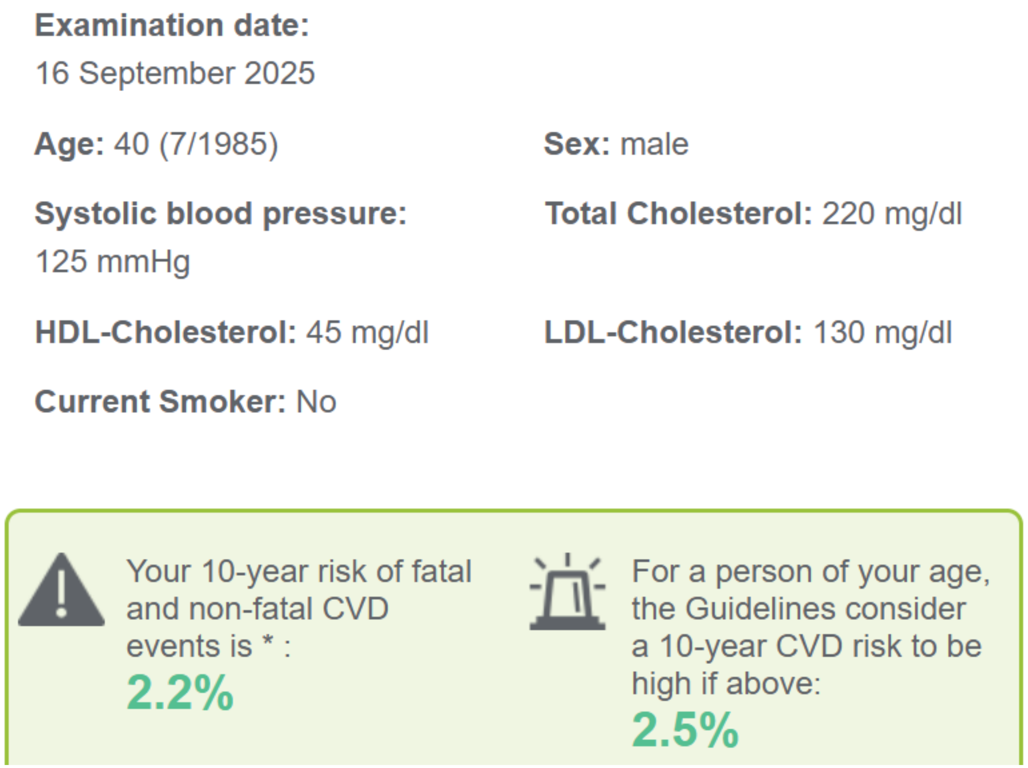
Wie hoch darf mein Cholesterinspiegel sein?

Ab wann muss ich Medikamente für einen erhöhten Cholesterinspiegel nehmen?



HeartScore®

EAPC
European Society of Cardiology

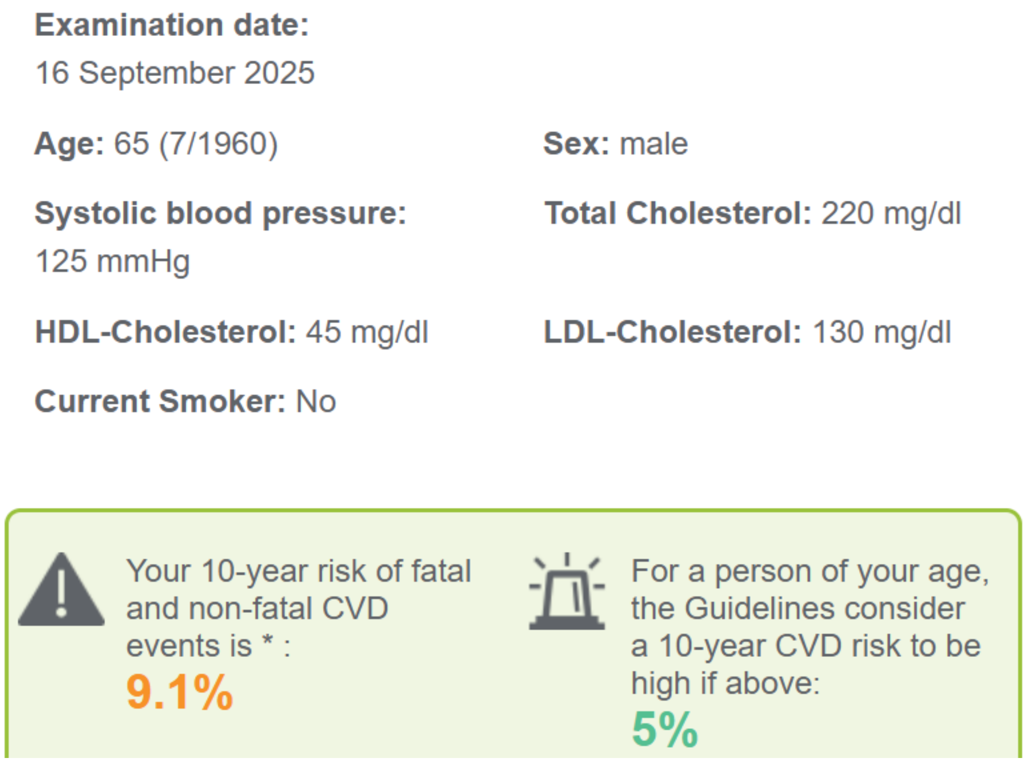


Examination date:
16 September 2025

Age: 40 (7/1985)
Sex: male
Systolic blood pressure: 125 mmHg
Total Cholesterol: 220 mg/dl
HDL-Cholesterol: 45 mg/dl
LDL-Cholesterol: 130 mg/dl
Current Smoker: No

Your 10-year risk of fatal and non-fatal CVD events is * :
2.2%

For a person of your age, the Guidelines consider a 10-year CVD risk to be high if above:
2.5%

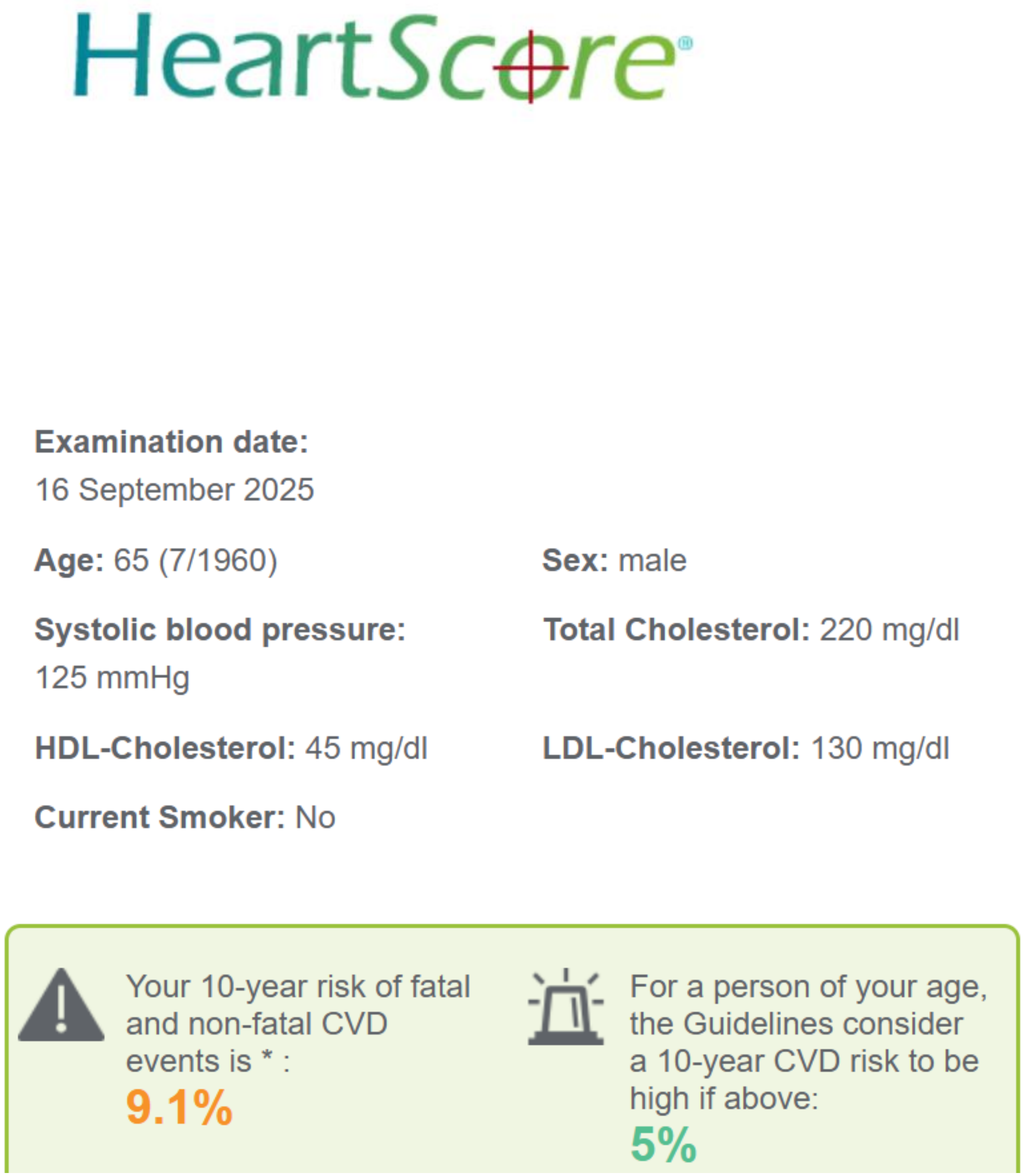


Examination date:
16 September 2025

Age: 65 (7/1960)
Sex: male
Systolic blood pressure: 125 mmHg
Total Cholesterol: 220 mg/dl
HDL-Cholesterol: 45 mg/dl
LDL-Cholesterol: 130 mg/dl
Current Smoker: No

Your 10-year risk of fatal and non-fatal CVD events is * :
9.1%

For a person of your age, the Guidelines consider a 10-year CVD risk to be high if above:
5%



HeartScore®

Examination date:
16 September 2025

Age: 65 (7/1960)

Sex: male

Systolic blood pressure: 125 mmHg

Total Cholesterol: 220 mg/dl

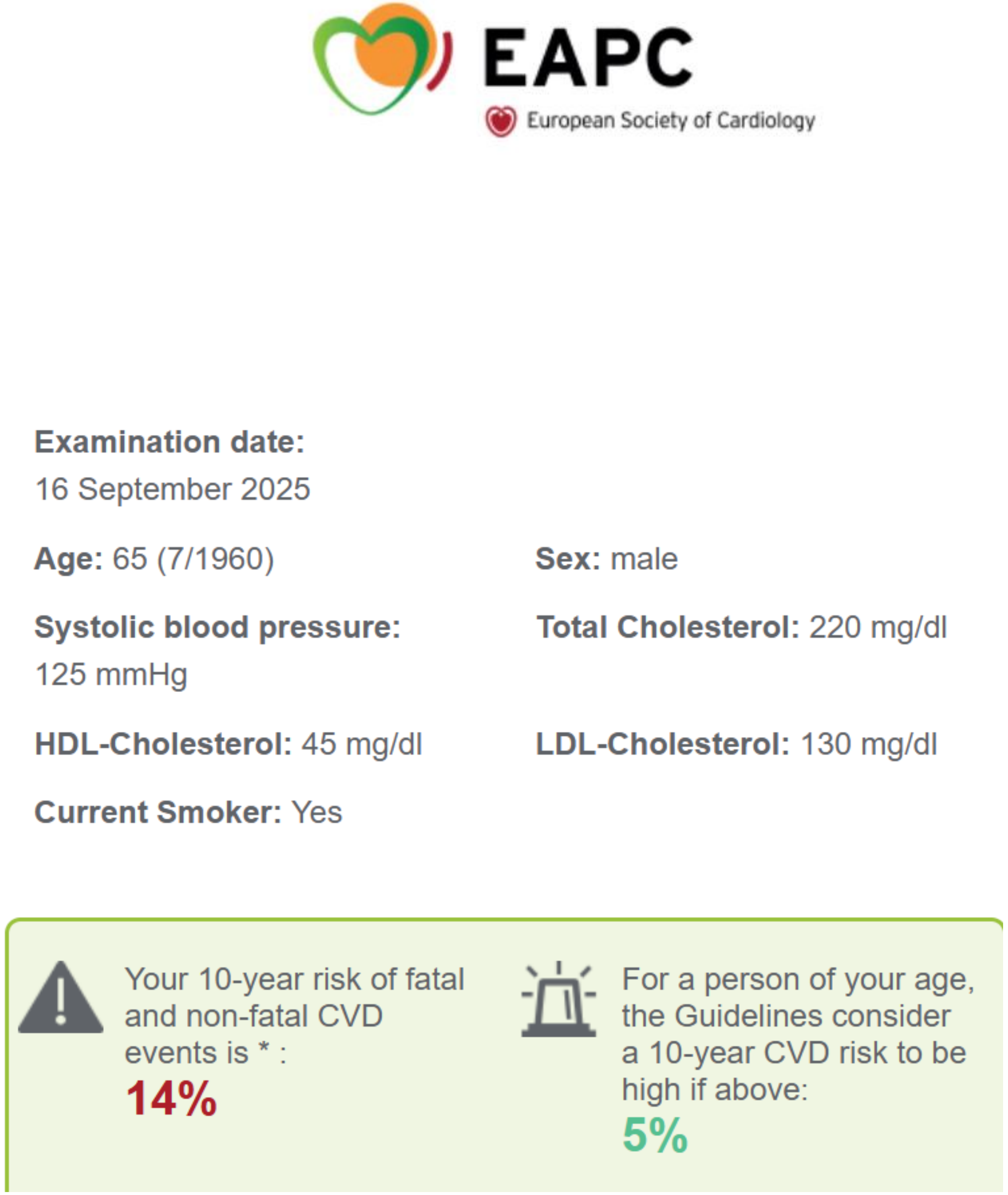
HDL-Cholesterol: 45 mg/dl

LDL-Cholesterol: 130 mg/dl

Current Smoker: No

Your 10-year risk of fatal and non-fatal CVD events is * :
9.1%

For a person of your age, the Guidelines consider a 10-year CVD risk to be high if above:
5%



EAPC
European Society of Cardiology

Examination date:
16 September 2025

Age: 65 (7/1960)

Sex: male

Systolic blood pressure: 125 mmHg

Total Cholesterol: 220 mg/dl

HDL-Cholesterol: 45 mg/dl

LDL-Cholesterol: 130 mg/dl

Current Smoker: Yes

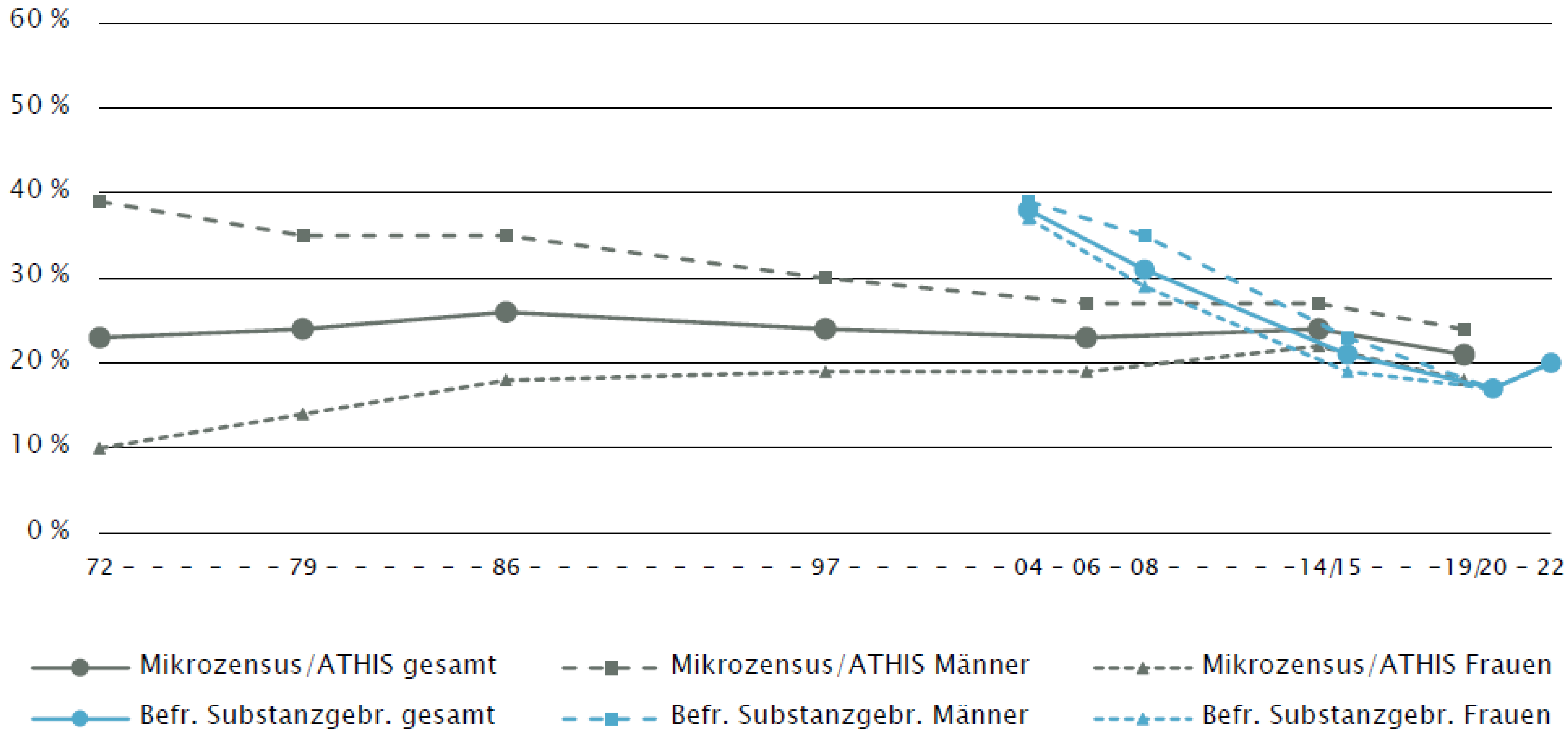
Your 10-year risk of fatal and non-fatal CVD events is * :
14%

For a person of your age, the Guidelines consider a 10-year CVD risk to be high if above:
5%

Was Faktoren hängt die Höhe meines Cholesterinspiegels ab?

- Gene
- Bewegung
- Ernährung (gesättigten Fettsäuren, Transfette)

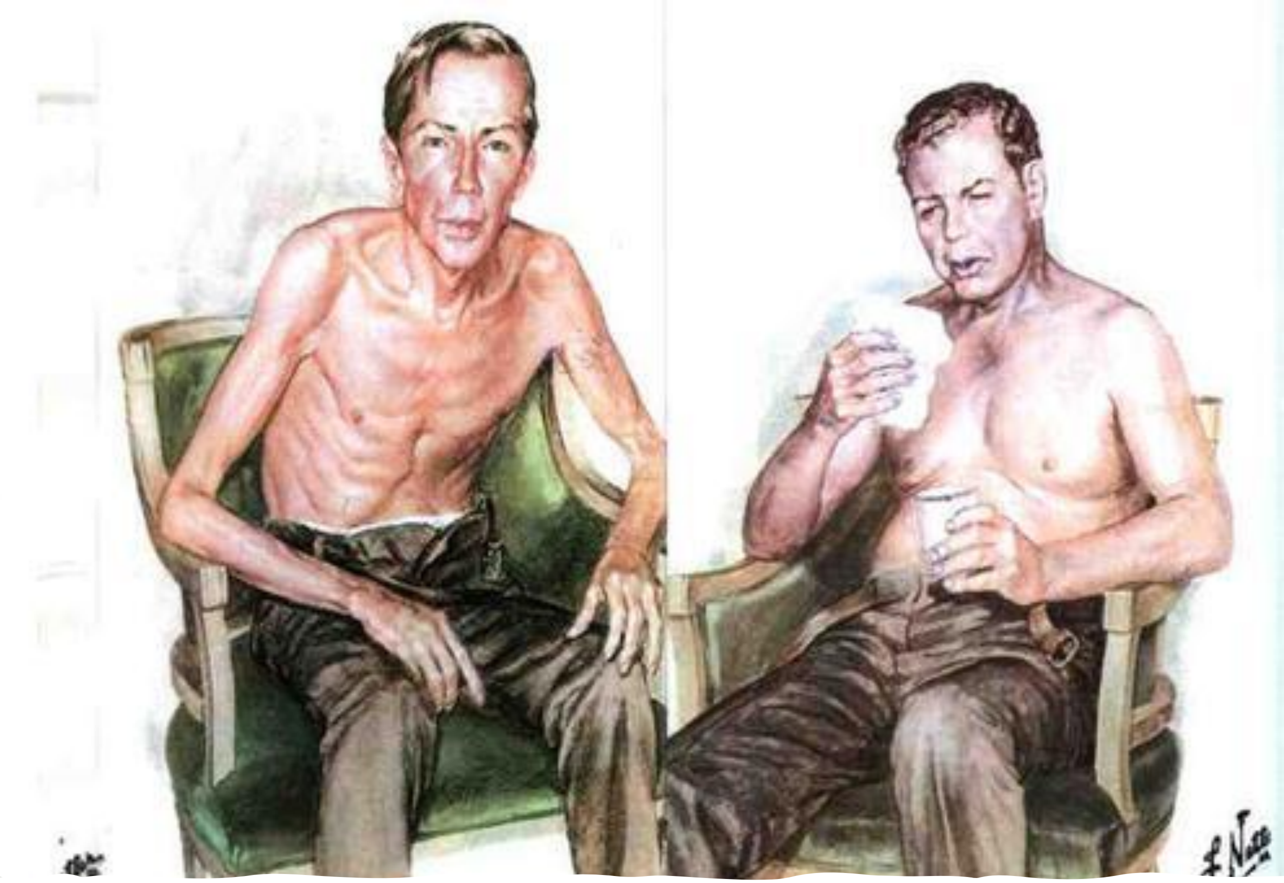
Abbildung 4.1:
Anteil der täglich Rauchenden an der Bevölkerung 15+ 1972–2022



NO

Sind E-Zigaretten gesünder?

- enthalten weniger Schadstoffe
- Nikotin selber ist nicht so schädlich
- aber andere Aerosole und Inhaltsstoffe – Langzeitauswirkungen?
- Abhängigkeitspotential
- deswegen nicht empfohlen
- evtl. Einsatz in der Entwöhnung

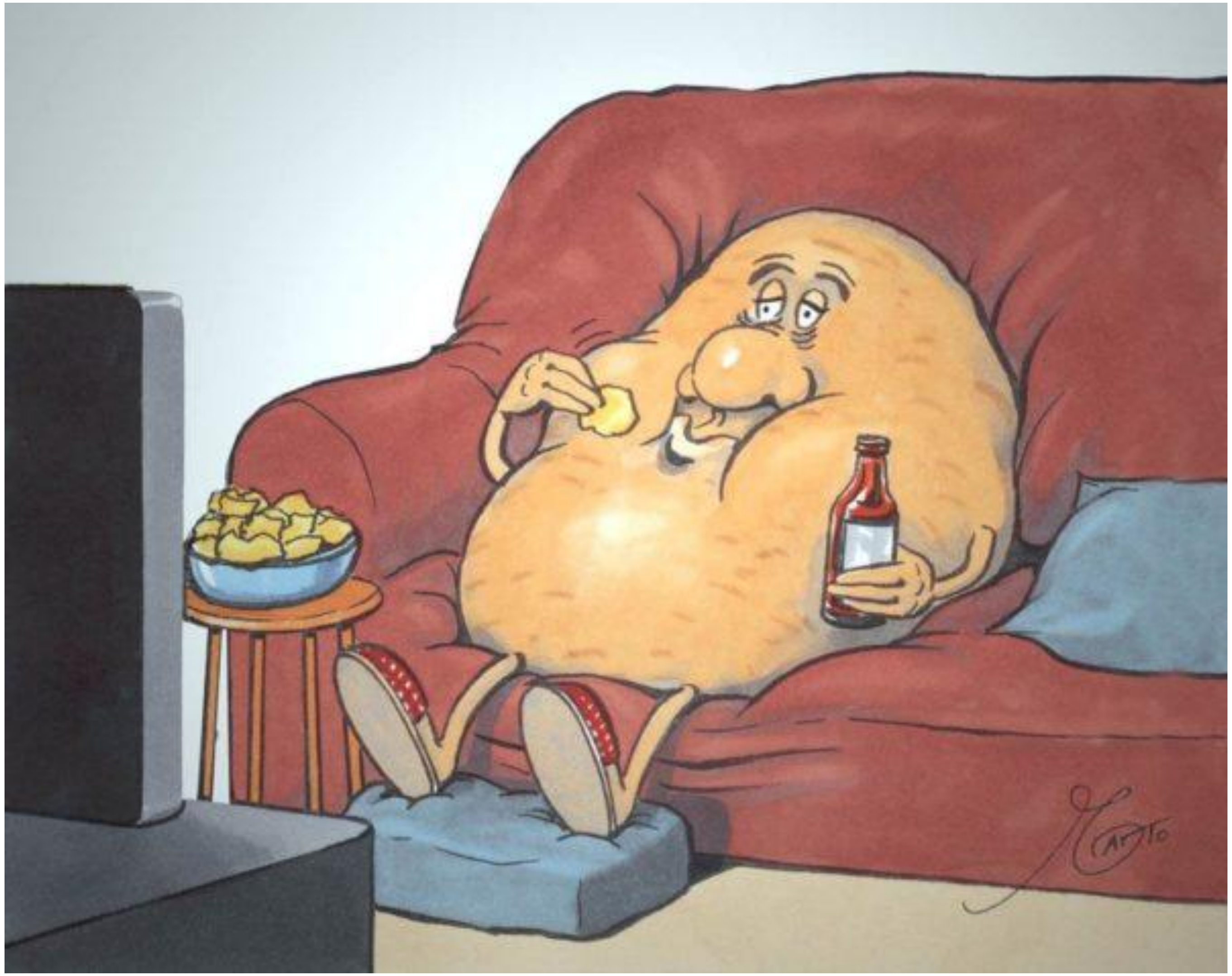


- Chronische obstruktive Lungenerkrankung - COPD

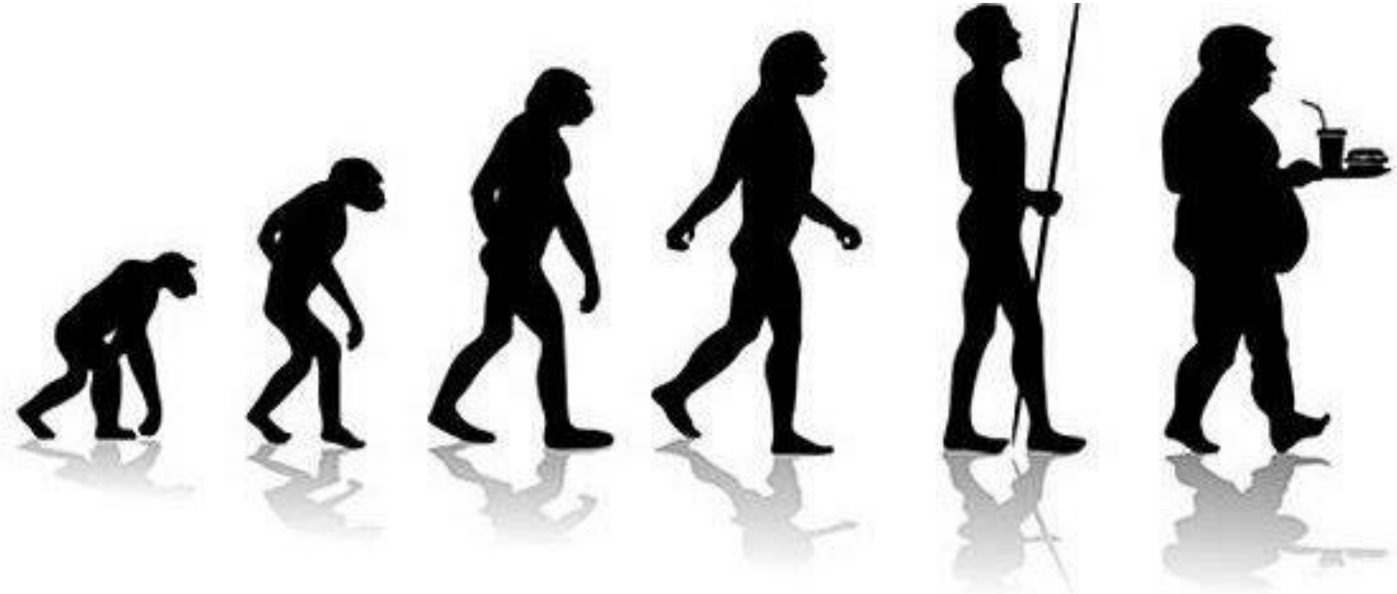
Sitzen ist das neue Rauchen!

cat

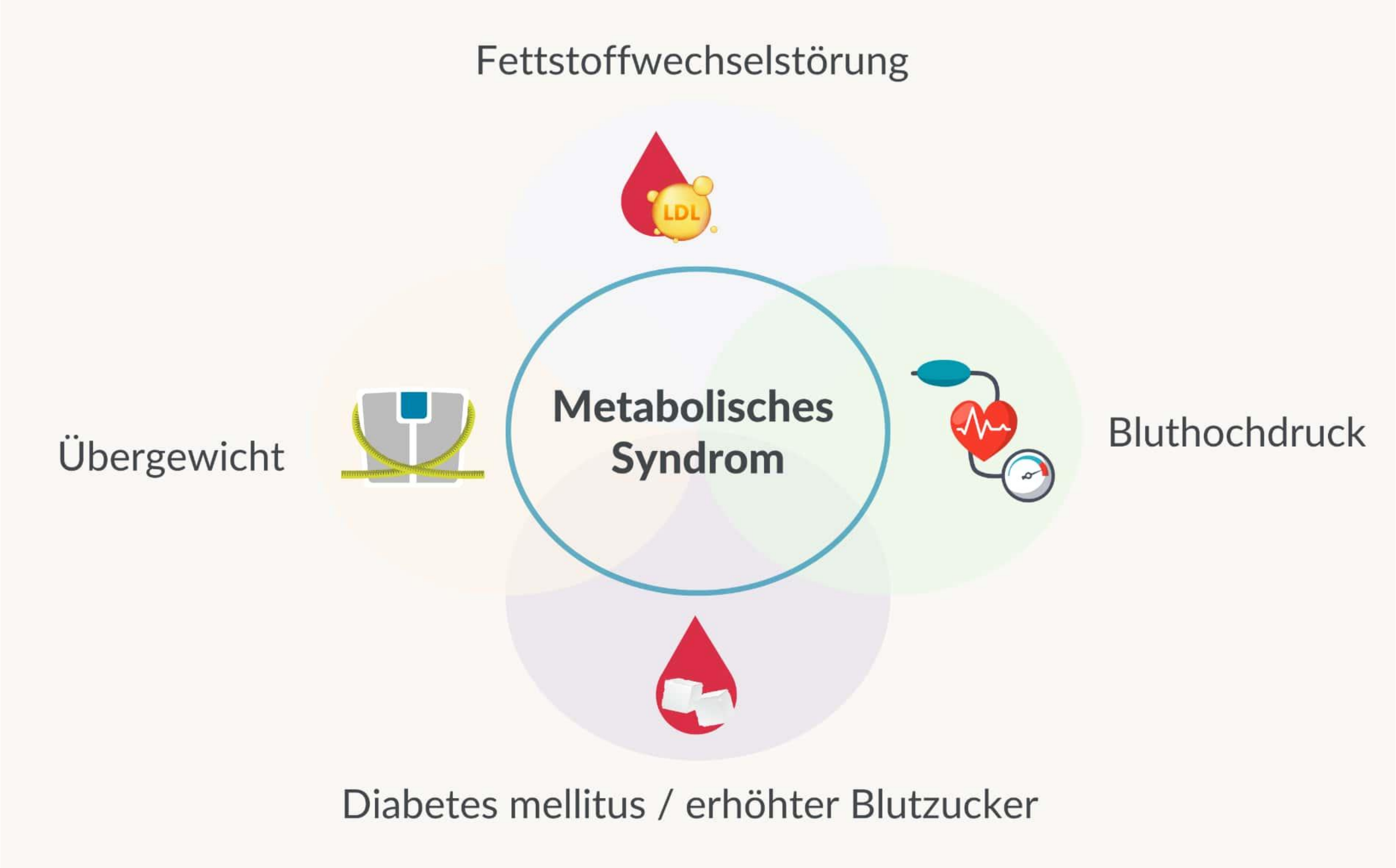
„Couchpotato“



Zivilisationskrankheiten



Übergewicht und Krankheiten


Fettstoffwechselstörung
LDL
Übergewicht
Metabolisches Syndrom
Bluthochdruck
Diabetes mellitus / erhöhter Blutzucker

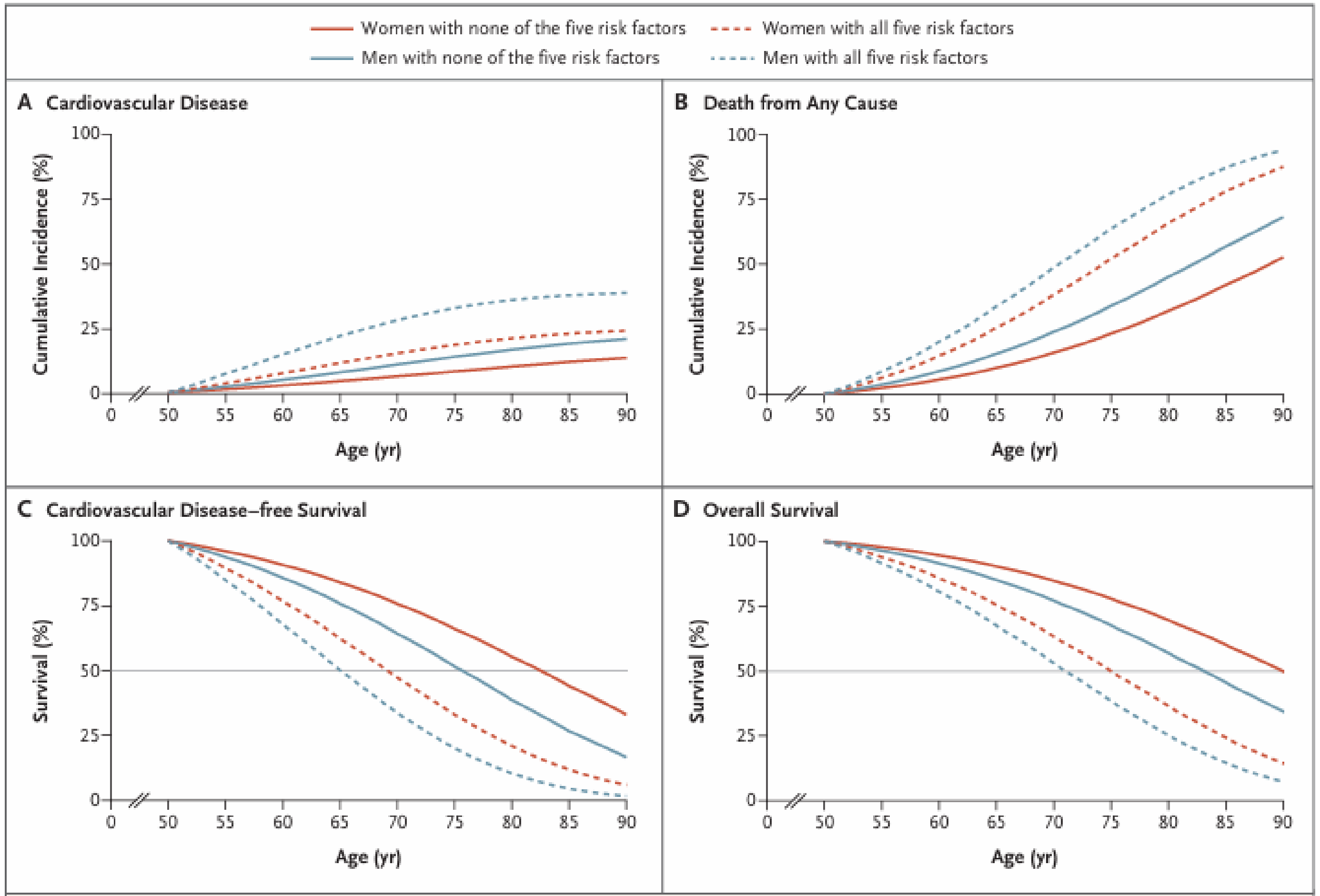


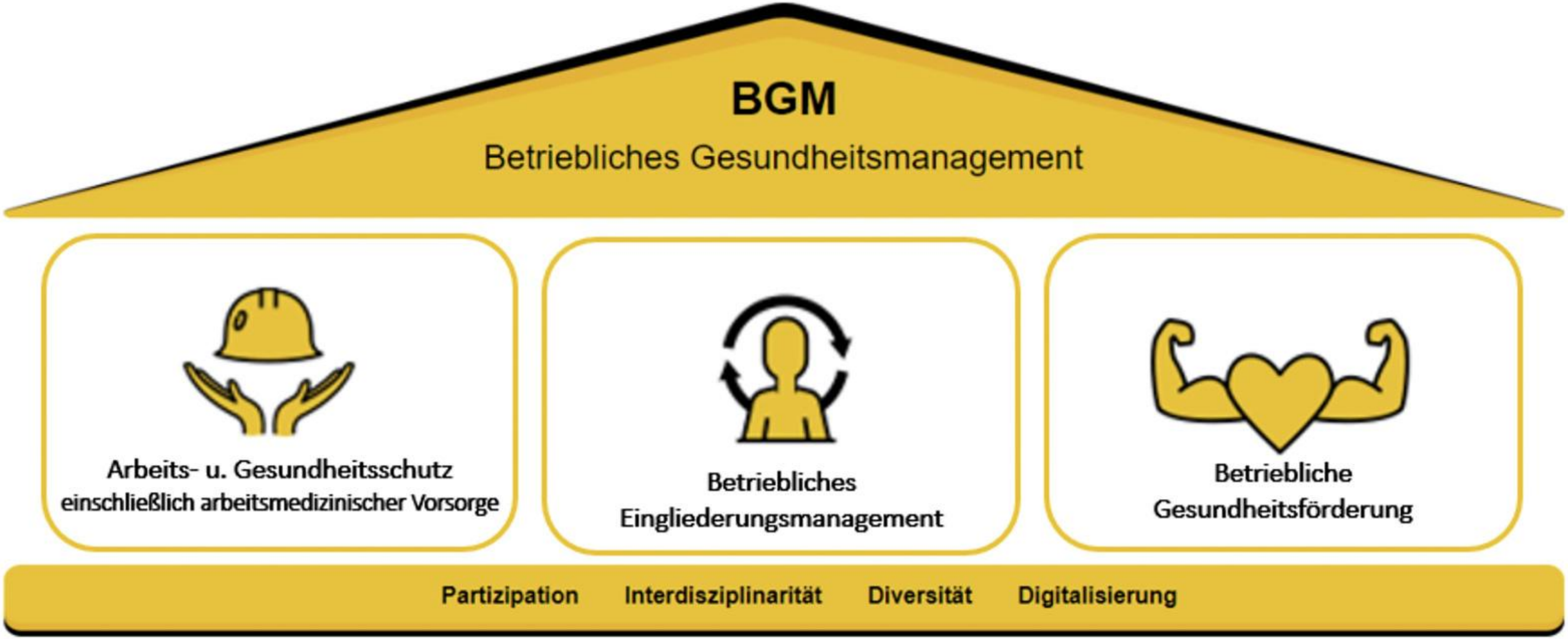
Figure 1. **Effect of Five Modifiable Cardiovascular Risk Factors on Lifetime Risk of Cardiovascular Disease and Death from Any Cause.**

Shown are risk curves for participants without the five cardiovascular risk factors (solid lines) as compared with those with all five risk factors (dashed lines) at an index age of 50 years. Cumulative incidence curves (Panels A and B) and survival curves (Panels C and D) are shown for women (red) and men (blue). Lifetime risk is shown for cardiovascular disease (Panel A) and death from any cause (Panel B), and lifetime difference is shown for cardiovascular disease or death (Panel C) and death from any cause (Panel D). In Panels C and D, cardiovascular disease–free life expectancy and overall life expectancy are indicated by the age at which a given survival curve crosses the horizontal line at 50%. The curves were generated with the use of recalibrated predictions from Weibull models. The five risk factors are a systolic blood pressure of 130 mm Hg or more, a non–high-density lipoprotein (HDL) cholesterol level of 130 mg per deciliter (3.36 mmol per liter) or more, a body-mass index (BMI) of less than 20 or 25 or more, diabetes, and current smoking.

Blutdruck > 130/- mmHg
Cholesterin
Übergewicht oder
Untergewicht
Diabetes
Rauchen

Verlust von 10
Lebensjahren

nejm.org Juli 10, 2025



BGM

Betriebliches Gesundheitsmanagement

Arbeits- u. Gesundheitsschutz
einschließlich arbeitsmedizinischer Vorsorge

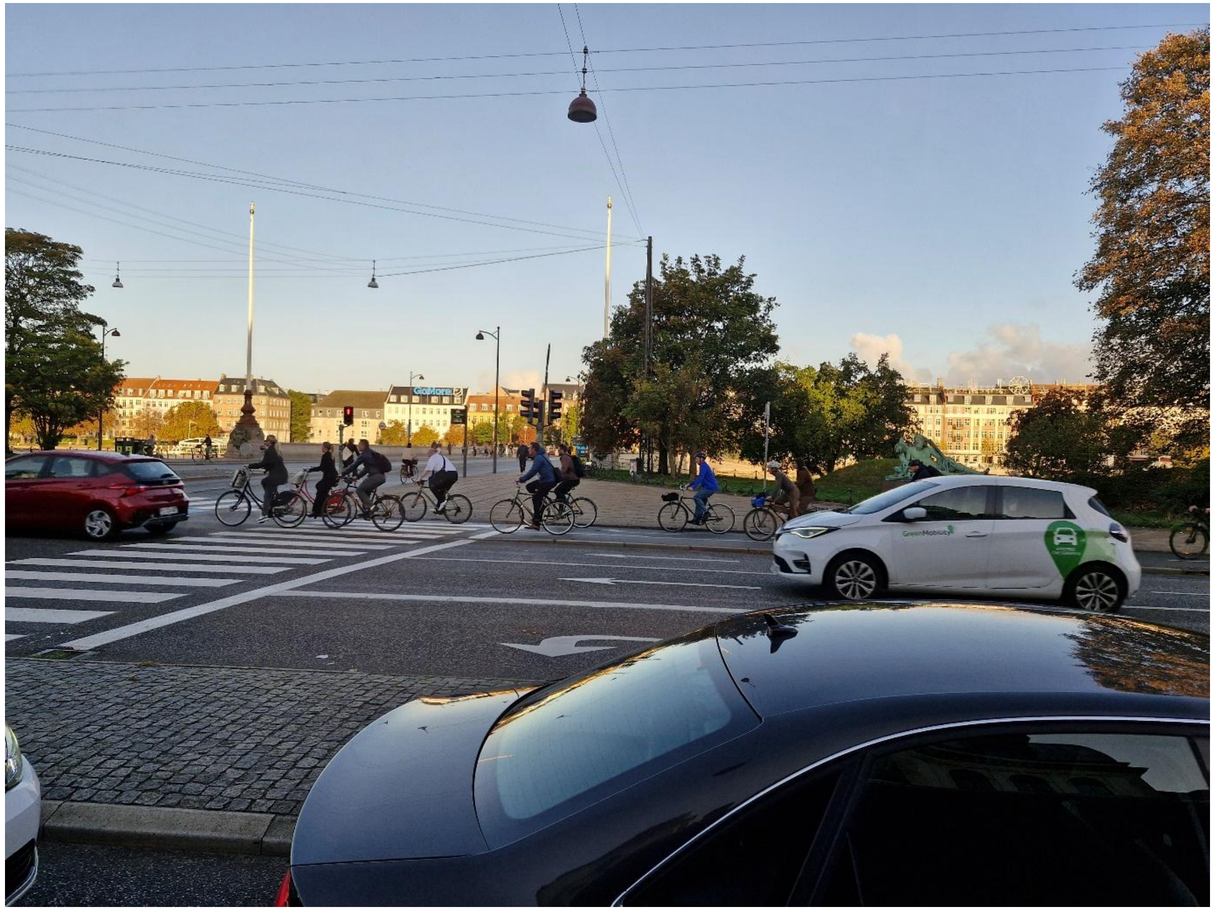
Betriebliches Eingliederungsmanagement

Betriebliche Gesundheitsförderung

Partizipation **Interdisziplinarität** **Diversität** **Digitalisierung**

betriebliche Gesundheit – internistische Sicht

- Animation zur Bewegung (Lift, Weg zur Arbeit nutzen, Fitnessraum, gemeinsame Aktivitäten…)



MØBLER
naver collection
OLSSON MØBLER
SØTORVET
40
punkt1
PUNKT1 SØTORVET
PRØV SELV AT PIKSE EN ELTAVLE FRA EFTERKRIGSTIDEN

betriebliche Gesundheit – internistische Sicht

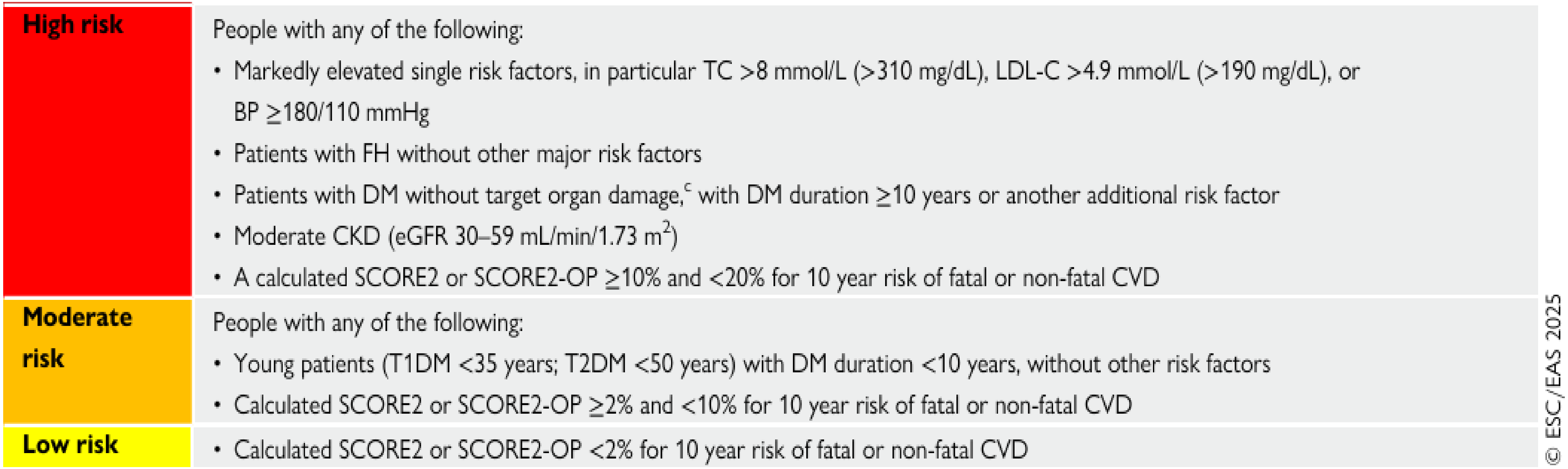
- Animation zur Bewegung (Lift, Weg zur Arbeit, Fitnessraum, Kooperation mit Fitnesscenter, gemeinsame Aktivitäten…)
- Gesundes Essen

della nonna
pot & spoon
street food
brasserie
smart &

betriebliche Gesundheit – internistische Sicht

- Animation zur Bewegung (Lift, Weg zur Arbeit, Fitnessraum, Kooperation mit Fitnesscenter, gemeinsame Aktivitäten…)
- Gesundes Essen
- Bereitstellung niederschwelliger med. Beratung und Vorsorge (Gesundenuntersuchungen)

Gesundheit im Alter



High risk	People with any of the following: • Markedly elevated single risk factors, in particular TC >8 mmol/L (>310 mg/dL), LDL-C >4.9 mmol/L (>190 mg/dL), or BP ≥180/110 mmHg • Patients with FH without other major risk factors • Patients with DM without target organ damage,[c] with DM duration ≥10 years or another additional risk factor • Moderate CKD (eGFR 30–59 mL/min/1.73 m^2) • A calculated SCORE2 or SCORE2-OP ≥10% and <20% for 10 year risk of fatal or non-fatal CVD
Moderate risk	People with any of the following: • Young patients (T1DM <35 years; T2DM <50 years) with DM duration <10 years, without other risk factors • Calculated SCORE2 or SCORE2-OP ≥2% and <10% for 10 year risk of fatal or non-fatal CVD
Low risk	• Calculated SCORE2 or SCORE2-OP <2% for 10 year risk of fatal or non-fatal CVD

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Table 4 Intervention strategies as a function of total cardiovascular risk and untreated low-density lipoprotein cholesterol levels

Total CV risk	Untreated LDL-C levels					
	<1.4 mmol/L (<55 mg/dL)	1.4 to <1.8 mmol/L (55 to <70 mg/dL)	1.8 to <2.6 mmol/L (70 to <100 mg/dL)	2.6 to <3.0 mmol/L (100 to <116 mg/dL)	3.0 to <4.9 mmol/L (116 to <190 mg/dL	≥4.9 mmol/L (≥190 mg/dL)[a]
Low	Lifestyle advice	Lifestyle advice	Lifestyle advice	Lifestyle advice	Lifestyle modification, consider adding drug if uncontrolled	N/A[a]
Moderate	Lifestyle advice	Lifestyle advice	Lifestyle advice	Lifestyle modification, consider adding drug if uncontrolled	Lifestyle modification, consider adding drug if uncontrolled	N/A[a]
High	Lifestyle advice	Lifestyle advice	Lifestyle modification, consider adding drug if uncontrolled	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention
Very high: primary prevention	Lifestyle modification, consider adding drug	Lifestyle modification, consider adding drug	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention
Very high: secondary prevention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention	Lifestyle modification and concomitant drug intervention

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