

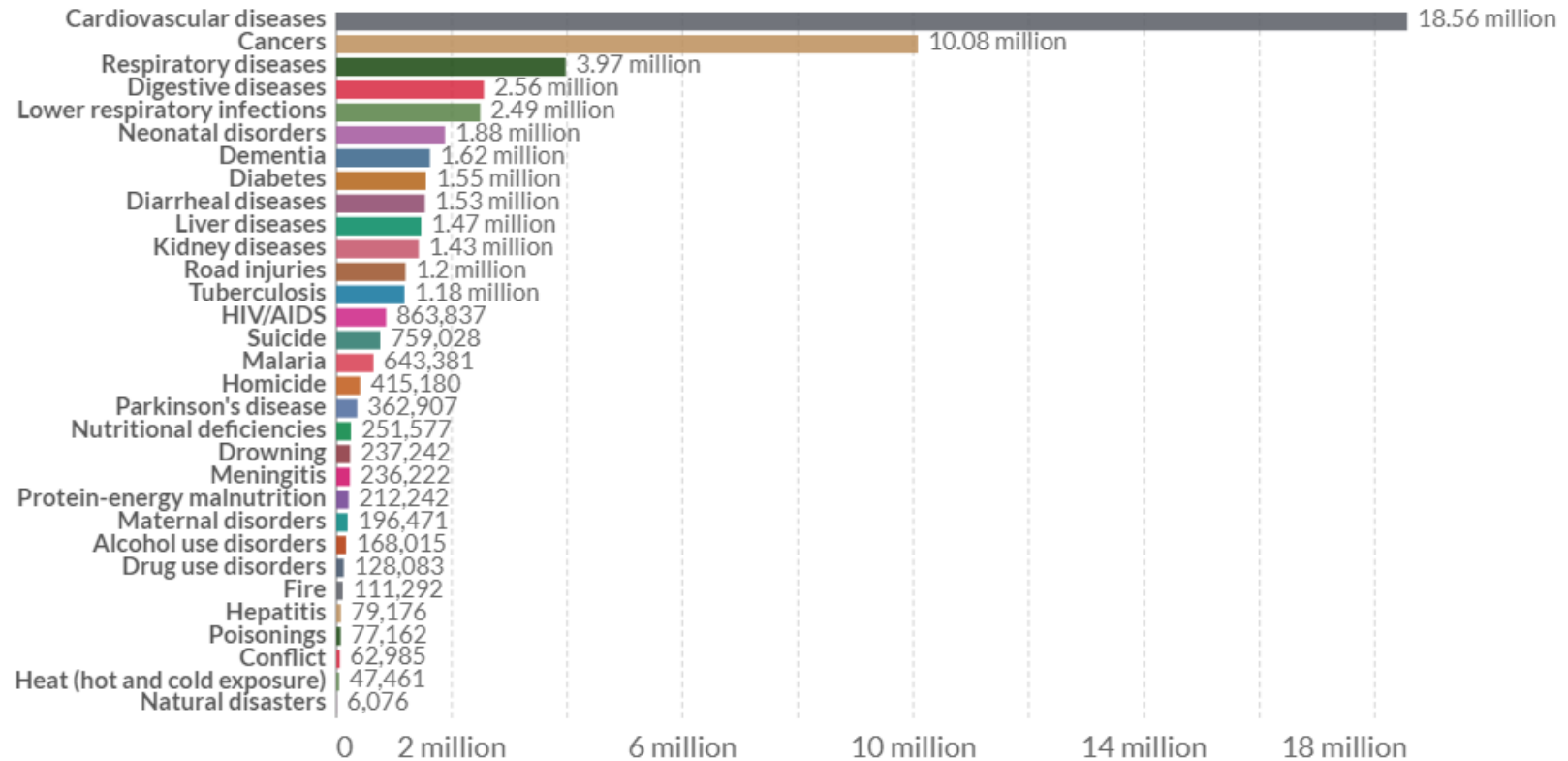
# Update Psychokardiologie

Dr. med. Lena Jellestad, Oberärztin meV

SGPP/SSCLP, 08.09.2022, Bern

# Number of deaths by cause, World, 2019

↻ Change country



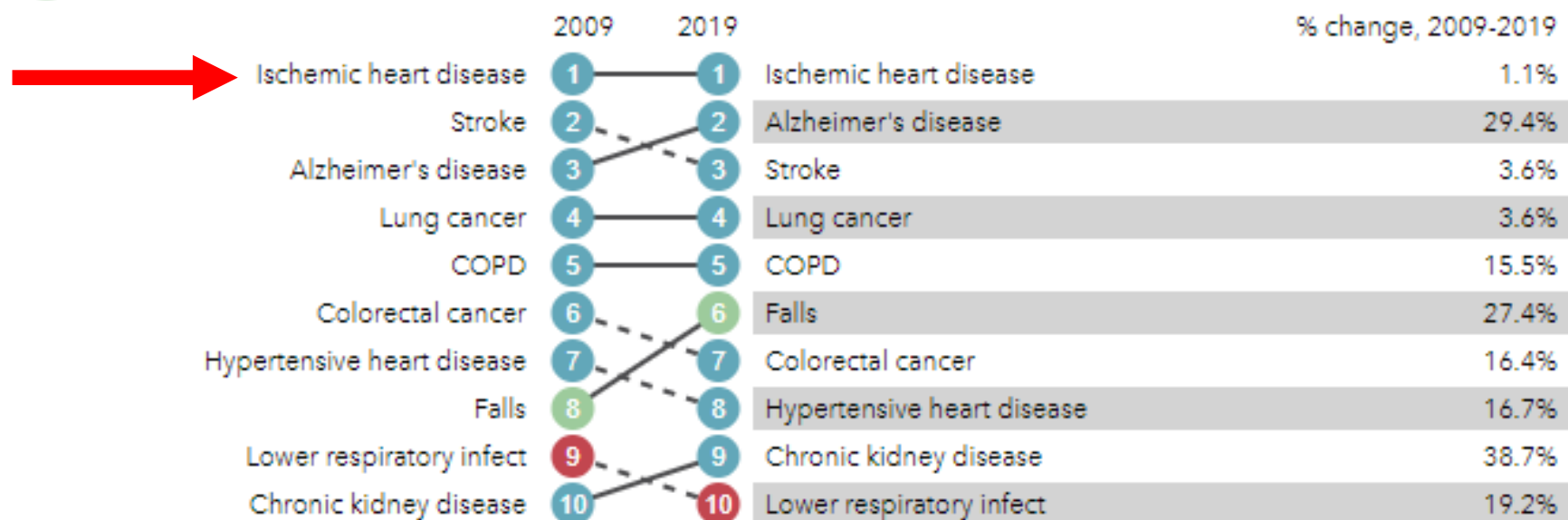
Source: IHME, Global Burden of Disease (2019)

OurWorldInData.org/causes-of-death • CC BY



# What causes the most deaths?

- Communicable, maternal, neonatal, and nutritional diseases
- Non-communicable diseases
- Injuries



Top 10 causes of total number of deaths in 2019 and percent change 2009-2019, all ages combined

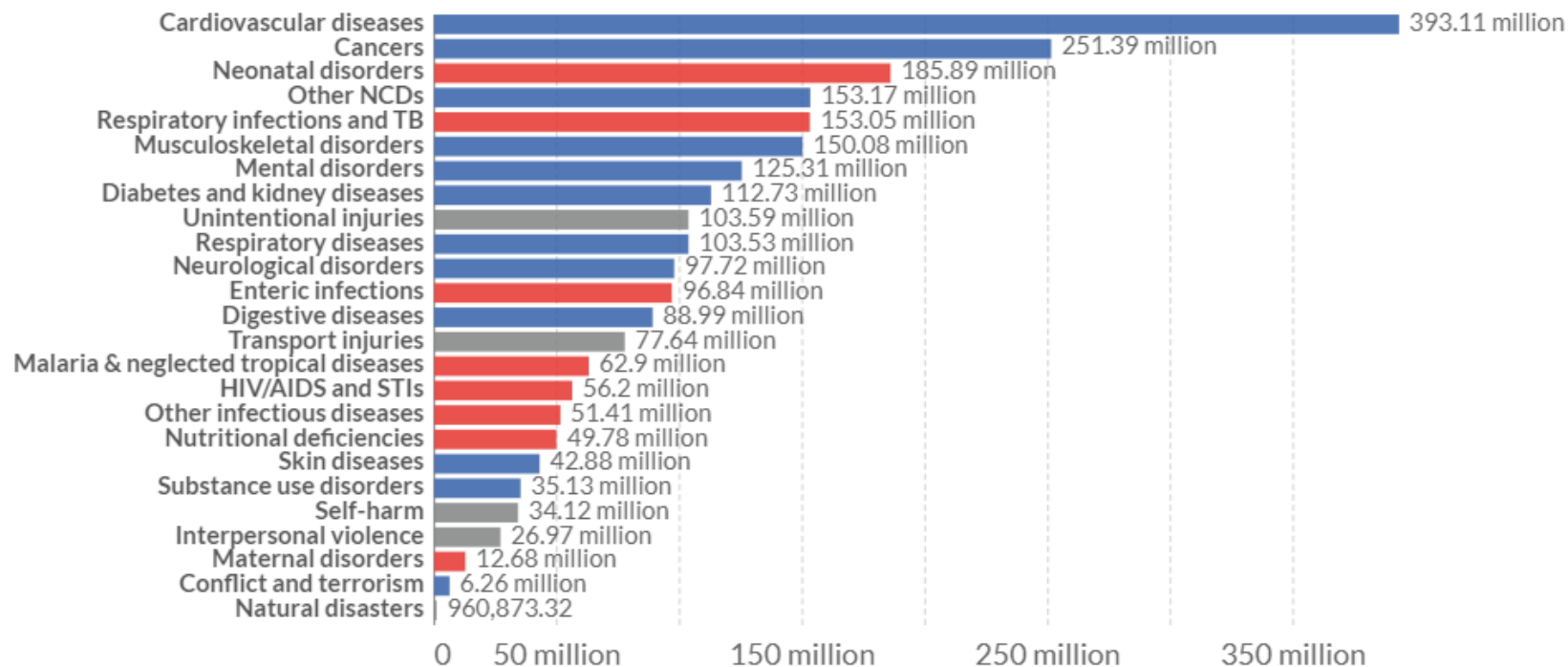
See related publication: [https://doi.org/10.1016/S0140-6736\(20\)30925-9](https://doi.org/10.1016/S0140-6736(20)30925-9)

Healthdata.org/switzerland

# Burden of disease by cause, World, 2019

Total disease burden, measured in Disability-Adjusted Life Years (DALYs) by sub-category of disease or injury. DALYs measure the total burden of disease – both from years of life lost due to premature death and years lived with a disability. One DALY equals one lost year of healthy life.

[↔ Change country](#)



Source: IHME, Global Burden of Disease (2019)

OurWorldInData.org/burden-of-disease • CC BY

Note: Non-communicable diseases are shown in blue; communicable, maternal, neonatal and nutritional diseases in red; injuries in grey.



## There is a clear vision on how to address CVDs

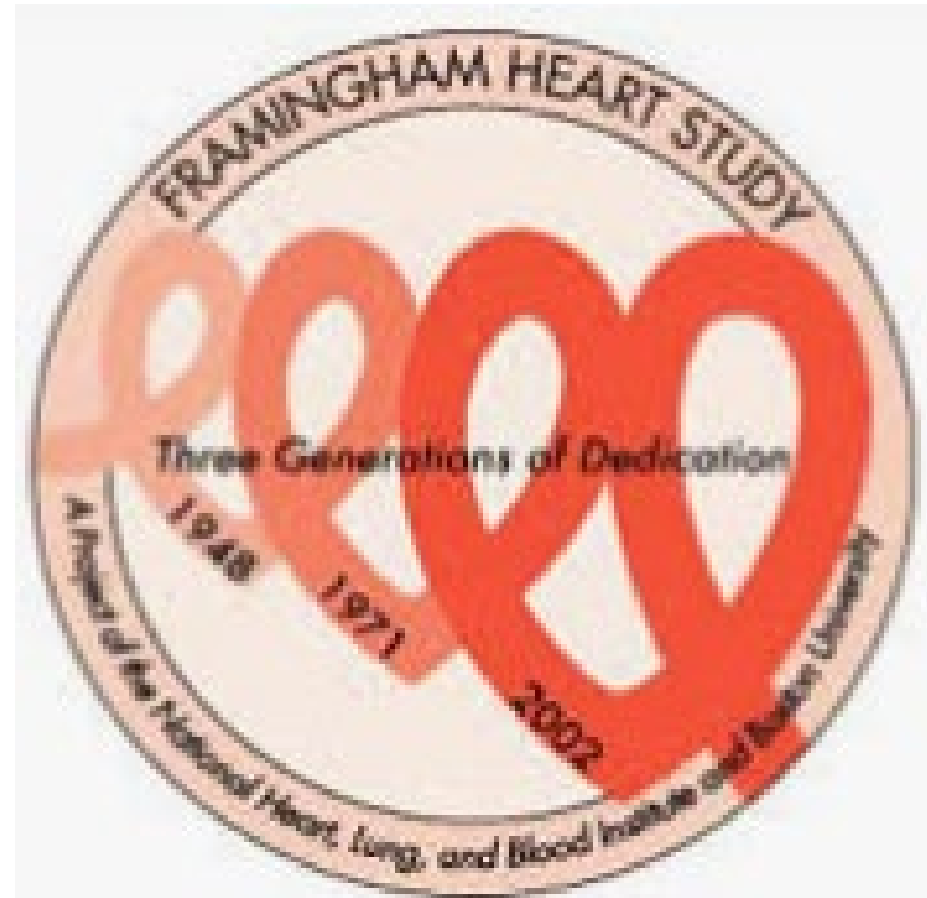


Global atlas on cardiovascular disease prevention and control. WHO, 2011

# Risikofaktoren..

## 1948 Framingham Studie :

- die Senkung des [Cholesterinspiegels](#),
- die Einstellung des [Blutdrucks](#)
- des [Blutzuckers](#)
- Verzicht auf [Nikotin](#)
- .
- .
- Einfluss von [Adipositas](#)
- Einfluss [psychosozialer Faktoren](#)



# Relevanz der Risikofaktoren

## INTER-HEART Studie

n= ~30.000

Yusuf S et al. Lancet, 2004

Risikofaktor	Anteil der hierdurch mitbedingten Infarkte
Lipoproteinmuster ApoB/ApoA-1	49.2 %
Aktives Rauchen	35.7 %
Psychosoziale Faktoren / Stress	32.5 %
Abdominelle Adipositas	20.1 %
Hypertonus	17.9 %
Nicht täglich Obst / Gemüse	13.7 %
Bewegungsmangel	12.2 %
Diabetes	9.9 %
Alkoholkonsum	6.7 %
<b>Gesamt</b>	<b>90.4 %</b>

# Vergleichbare Effektstärken etablierte vs. psychosoziale RF

Parameters	First Author (Ref. #)	n	Endpoint	Adjusted Risk Estimates (95% CI)*
<b>Conventional CHD risk factors</b>				
Smoking	Jha (45)	88,496 men†	ACM	2.80 (2.40-3.10)
Passive smoking	He (46)	637,814	CVD/MI	1.25 (1.17-1.32)
Elevated Non-HDL-C	Emerging RFC (47)	302,430	CVD	1.50 (1.39-1.61)
Diabetes mellitus	Emerging	820,900	Vascular deaths	2.32 (2.11-2.56)
Low fitness	Kodama (49)	102,980	CHD/CVD	1.56 (1.39-1.79)
BMI 30-34.9 kg/m <sup>2</sup>	Berrington de Gonzalez (50)	1,460,000	ACM	1.44 (1.38-1.50)
<b>Psychosocial CHD risk factors</b>				
Insomnia	Sofi (3)	122,501	CHD/CVD	1.45 (1.29-1.62)
Short sleep	Cappuccio (4)	474,684	CHD/CVD	1.48 (1.22-1.80)
Depression	Nicholson (6)	146,538	CVD/MI	1.90 (1.49-2.52)
Anxiety	Roest (7)	67,187	CVD	1.48 (1.14-1.92)
Psychological distress (GHQ >6)	Russ (51)	68,222	CVD	1.72 (1.44-2.06)
Anger	Chida (21)	67,187	CHD/CVD	1.19 (1.05-1.35)
Positive social integration	Holt-Lunstad (28)	309,849	ACM	1.91 (1.63-2.23)‡



## Recommendations for mental healthcare and psychosocial interventions at the individual level

Recommendations	Class <sup>a</sup>	Level <sup>b</sup>
Patients with mental disorders need intensified attention and support to improve adherence to lifestyle changes and drug treatment. <sup>3,465</sup>	<b>I</b>	<b>C</b>

## Recommendations for CVD risk modifiers

Recommendations	Class <sup>a</sup>	Level <sup>b</sup>
Stress symptoms and psychosocial stressors modify CVD risk. Assessment of these stressors should be considered. <sup>100–102</sup>	<b>IIa</b>	<b>B</b>

## Box 2. Core topics for psychosocial assessment

Simultaneous diagnostic assessment	At least one in five patients carries a diagnosis of a mental disorder, usually presenting with bodily symptoms (e.g. chest tightness, shortness of breath). Therefore, physicians should be equally attentive to somatic as to emotional causes of symptoms.
Screening	Screening instruments assessing depression, anxiety, and insomnia are recommended (e.g. Patient Health Questionnaire, <sup>116</sup> see <a href="#">Supplementary Table 5</a> ). <sup>117,118</sup>
Stressors	There are simple questions to get into a conversation about significant stressors <sup>112</sup> : Are you bothered by stress at work, financial problems, difficulties in the family, loneliness, or any stressful events?
Need for mental health support	Are you interested in a referral to a psychotherapist or mental health service?

recommended.<sup>472,473 c</sup>

© ESC

ASCVD = atherosclerotic cardiovascular disease; CHD = coronary heart disease; CV = cardiovascular; HF = heart failure; SNRI = serotonin-noradrenaline reuptake inhibitor; SSRI = selective serotonin reuptake inhibitor.

<sup>a</sup>Class of recommendation.

<sup>b</sup>Level of evidence.

ultrasound for plaque determination), is not recommended.

© ESC 20

CVD = cardiovascular disease; CAC = coronary artery calcium; RR = relative risk.

<sup>a</sup>Class of recommendation.

<sup>b</sup>Level of evidence.

# Psychosoziale RF der CVD

- Soziales Umfeld

Negative Kindheitserfahrungen, sozioökonomischer Status, Stress in der Partnerschaft, Arbeitsstress, Pflegestress

- Persönlichkeitsfaktoren

Feindseligkeit, Ärgerneigung, Typ D Persönlichkeit

- Negative Affekte

Depression, Angst, PTBS, Trauer, wahrgenommener Stress

- Fatiguezustände

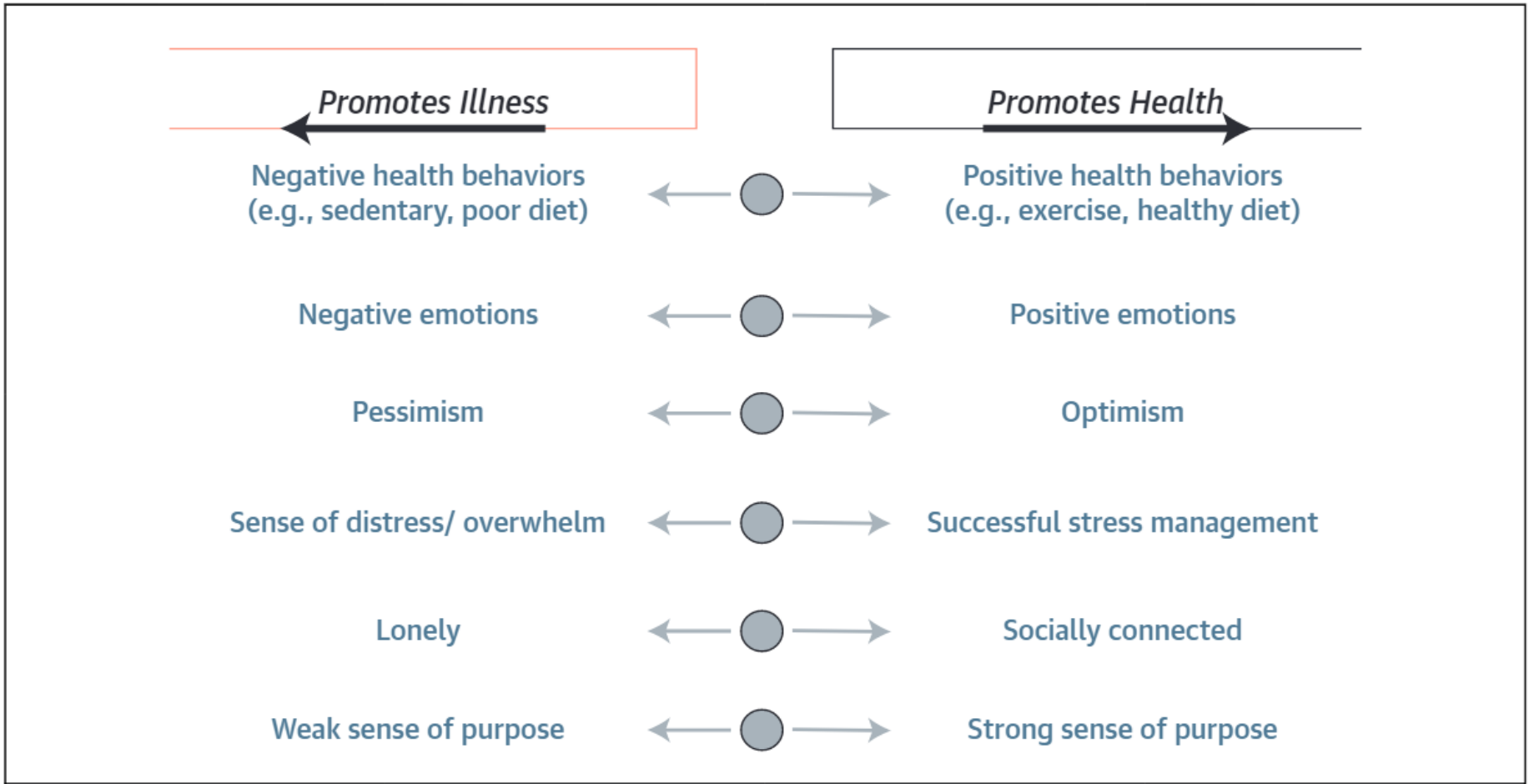
Schwere Erschöpfung (*vital exhaustion*), Burnout, Insomnie

- Triggerfaktoren

Akuter emotionaler Stress

# Psychosoziale Einflussfaktoren

## Koronare Herzkrankheit



# Persönlichkeitsfaktoren

## Typ A

1. Ungeduld und Ruhelosigkeit
2. Ehrgeiz, Wettbewerbsstreben
- 3. Ärger, Feindseligkeit**

.... korrelieren signifikant mit KHK outcome (Chida and Steptoe Journal Am Coll Cardiol. 2009)

# Persönlichkeitsfaktoren

## Typ D

1. Soziale Inhibition
2. Negative Affekte

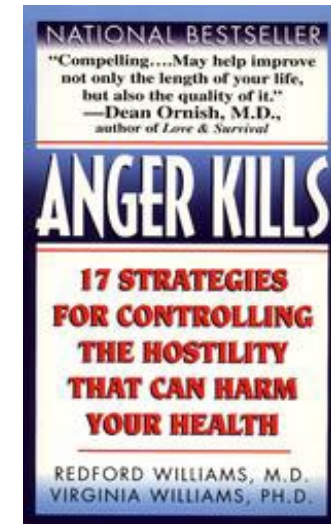
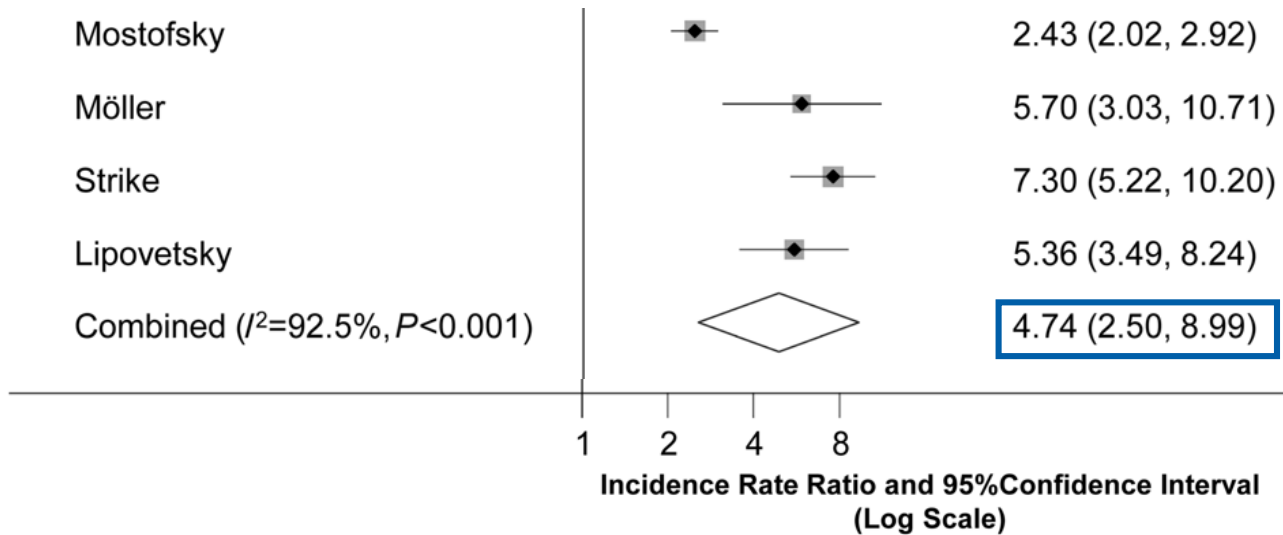
«Der Kummer, der nicht spricht, nagt am  
Herzen, bis es bricht»

William Shakespeare

“Type D personality predicts **increased mortality and morbidity burden**, and **poorer health-related quality of life**. Type D is part of a family of psychosocial risk factors that affect CHD **prognosis**.”

(Kupper and Denollet Curr Cardiol Rep 2018)

# Emotionaler Stress als Trigger des Herzinfarkts



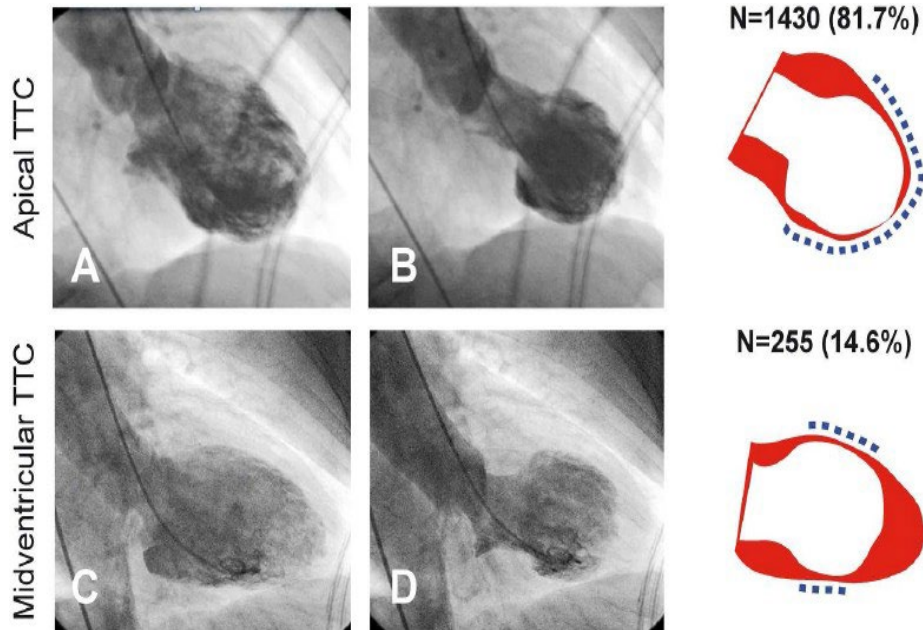
- Kritisches Zeitintervall: 2 h nach Ärgerausbruch
- Dosis-Wirkungs-Beziehung: Beobachtbares Verhalten
- Vulnerabilitätsfaktor: Vorbestehende (subklinische) KHK
- Reduziertes Risiko: Aspirin und Betablocker Einnahme



# Ist denn «guter» Stress besser ?

## Takotsubo-Syndrom

Jedes 25. Takotsubo-Syndrom ist ein «Happy Heart Syndrome»!



Templin C et al., N Engl J Med, 2015

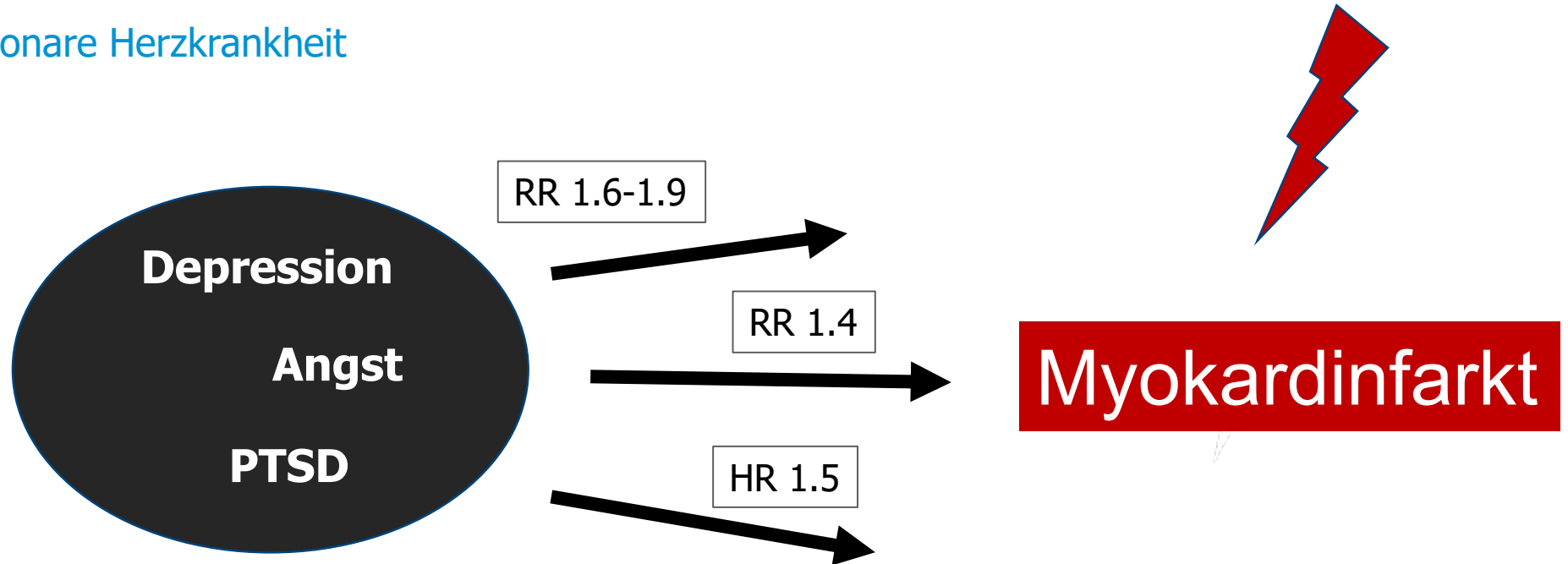
**Table 1** Happy heart events (n = 20)

Patient 1	Birthday party
Patient 2	Son's wedding
Patient 3	Meeting after 50 years with friends from high school
Patient 4	Preparing 50th wedding anniversary (pleasant anticipation)
Patient 5	Positive job interview
Patient 6	Wedding
Patient 7	Favourite driver won race car competition
Patient 8	Becoming grandmother
Patient 9	Surprise farewell celebration
Patient 10	Son's company opening
Patient 11	Favourite rugby team won game
Patient 12	Emotional speaking during a friend's birthday
Patient 13	Celebrating 80th birthday
Patient 14	Winning several jackpots at the casino
Patient 15	Celebration of normal PET-CT scan
Patient 16	Visiting opera with her family
Patient 17	Family party
Patient 18	Unexpected visit from favourite nephew
Patient 19	Grandchildren visiting from London (abroad)
Patient 20	Becoming great grandmother

Ghadri et al, Eur Heart J 2016

# Psychische Störungen als Risikofaktor

## Koronare Herzkrankheit



Correll et al. WorldPsychiatry 2017; Emdin et al. Am J Cardiol 2016,  
Akosile et al., Australas Psychiatry 2018



# Herz und Psyche..

## Koronare Herzkrankheit



Zerstörung von Unabhängigkeits- und Selbstständigkeitsfantasien

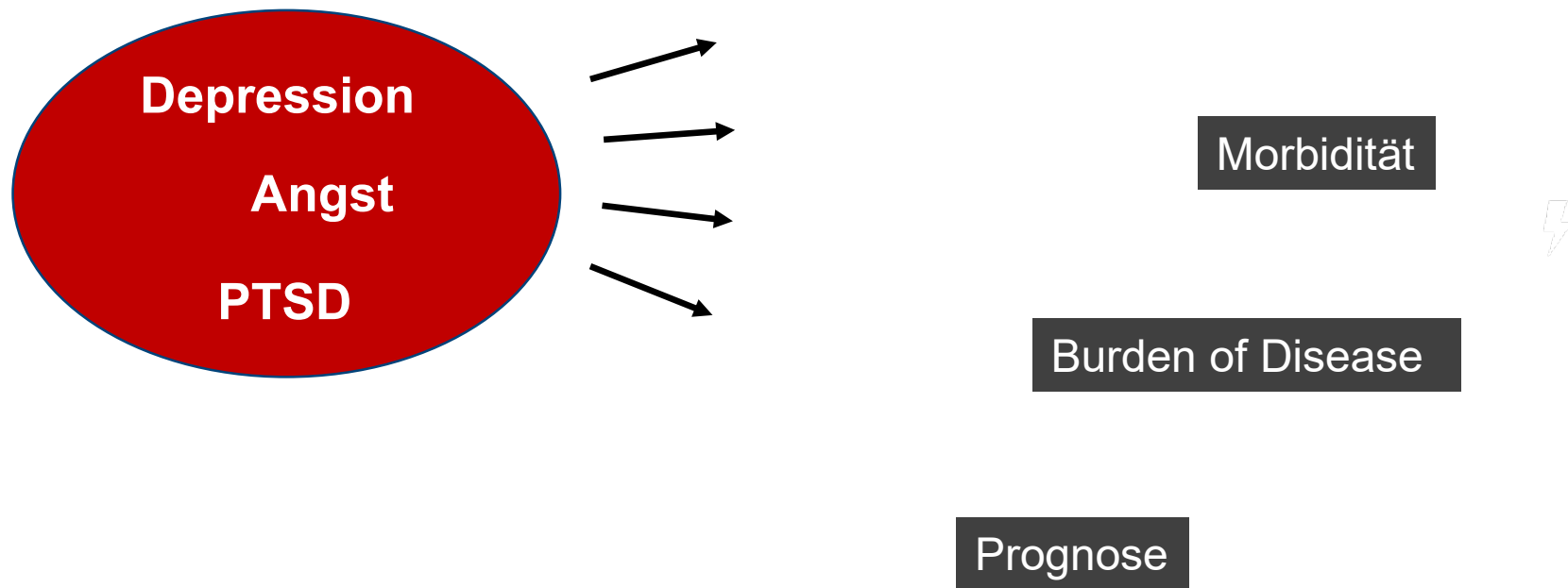
Kontrollverlust über den Körper, „der Feind im eigenen Körper“

„ego infarction“

Kognitive Störungen, Medikation

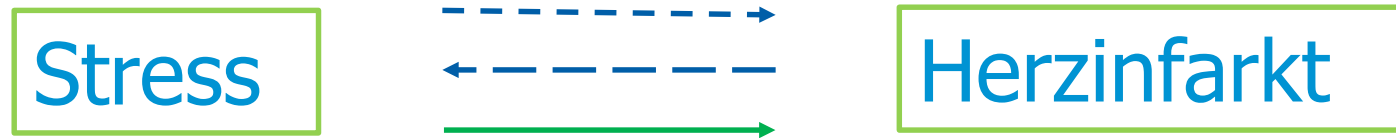
„Überflutung“ durch heftige Affekte

## .. Psyche und wieder Herz



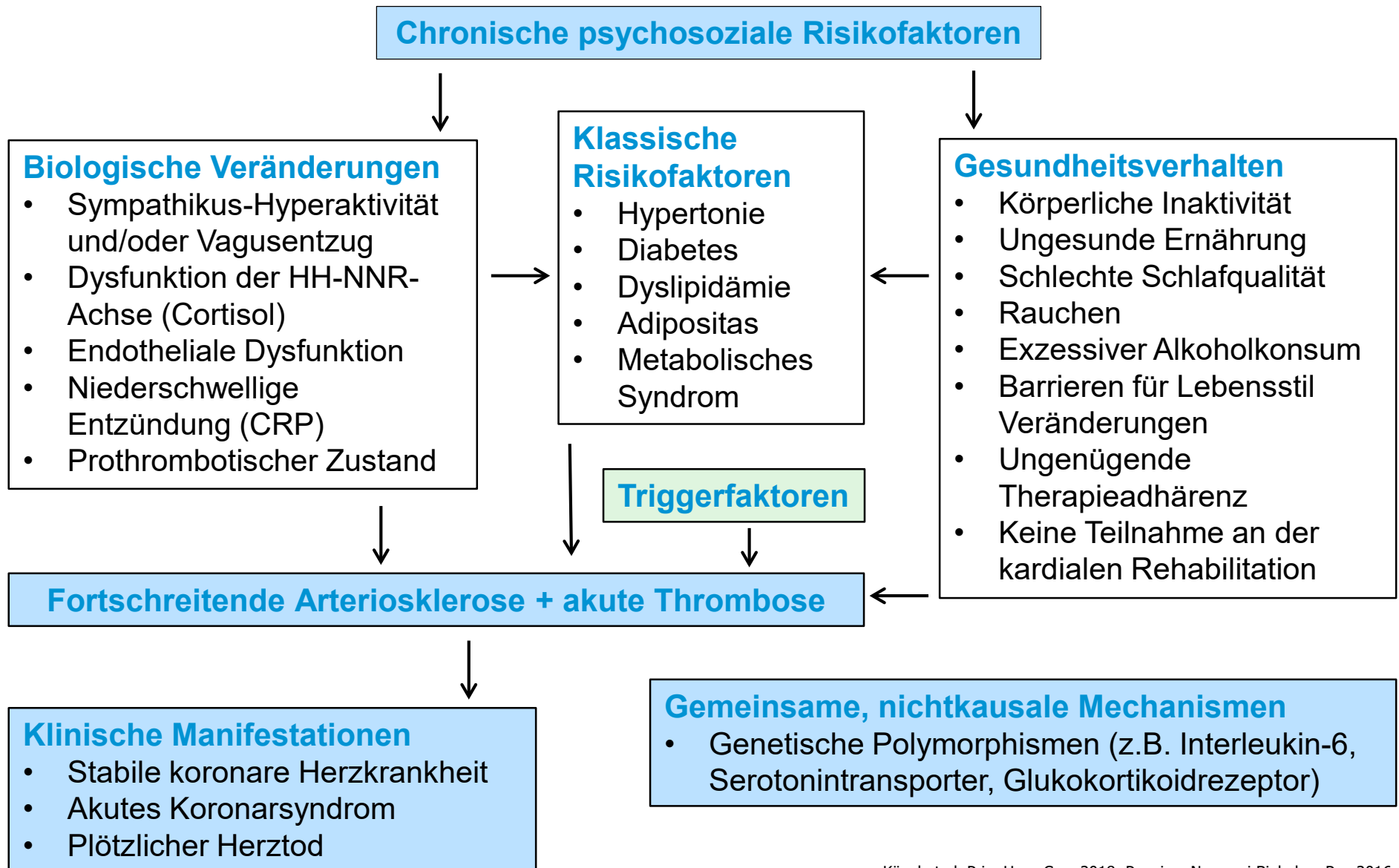
Stewart et al. Heart, 2017; Vongmany et al. Eur. J. Cardiovasc. Nurs. 2016

## Komplexe bio-psycho-soziale Wechselwirkungen



**Teufelskreis: Folge = Risiko**

# Mechanismen für die Progression der koronaren Herzkrankheit



# Therapie

## Multimodal

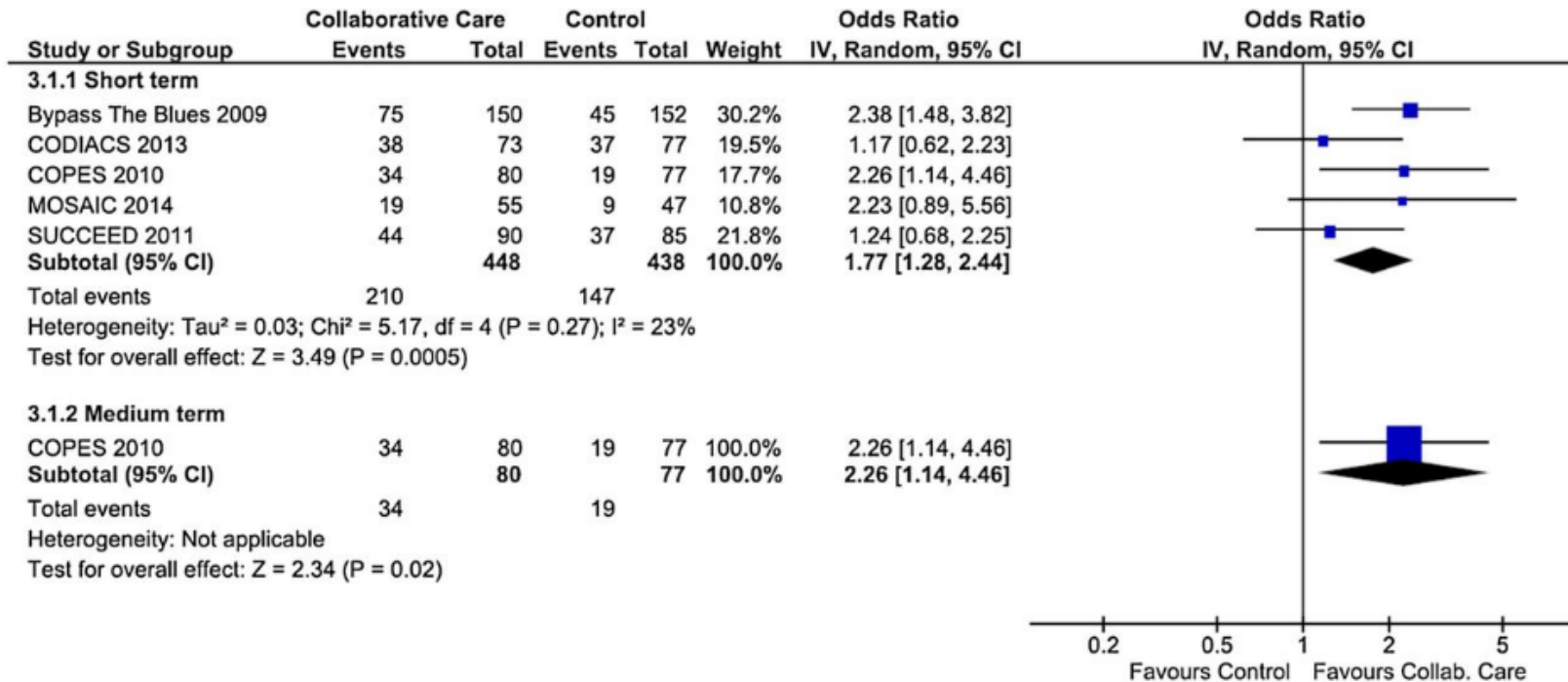
- Verhaltensmodifikation
- Förderung der medikamentösen Adhärenz
- Stressmanagement
- Sport- und Bewegungstherapie

## Psychiatrisch- psychotherapeutisch

- Abnahme psychopathologischer Symptome
- Förderung der Krankheitsbewältigung
- Modulation psychosozialer Risikofaktoren
- Gruppentherapie
- Medikamentöse Therapie

# Therapie

## Collaborative Care



Meta-analyse:  
 - CVD and depression  
 - 6 RCTs  
 - n= 1300

# Psychopharmazie

## The use of serotonin reuptake inhibitors increases the risk of bleeding in patients with assist devices

Bianca Auschra <sup># 1</sup>, Markus J Wilhelm <sup># 2</sup>, Claudia Husung <sup>1</sup>, Josef Jenewein <sup>3</sup>,  
Andreas J Flammer <sup>4</sup>, Lena Jellestad <sup>5</sup>

### 1. Wahl

#### SSRI

- Sertralin beste kardiale Verträglichkeit und günstigste Arzneimittelinteraktion
- (Es)Citalopram dosisabhängiges Risiko für QTc Verlängerung/ Torsade de pointes

CAVE: Erhöhtes Blutungsrisiko unter SSRI bei (dualer) APT (+ ACT)

### 2. Wahl:

- Mirtazapin (Gewicht)
- Venlafloxin/ Bupropion (RR)
- Valdoxan (Leber)

KEINE Trizyklika

#### KHK

SSRI wirksam bei (rezidivierender) Depression

#### Herzinsuffizienz

SSRI = Placebo

## Gender Aspekte

# Cardiovascular Disease in Women

### Closing the gaps in the cardiovascular care of women

*ESC Statement on 'The Lancet women and cardiovascular disease Commission: reducing the global burden by 2030' report.*

The European Society of Cardiology (ESC) welcomes the publication of the “The Lancet women and cardiovascular disease Commission: reducing the global burden by 2030” report, which outlines the gaps in cardiovascular disease (CVD) research, prevention, treatment, and access to care for women.

CVD  
wor

European Journal of

## Preventive Cardiology

Sex and age as predictors of HRQOL change in  
phase-II cardiac rehabilitation

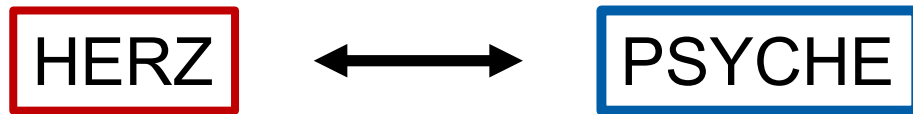
Lena Jellestad, MD et al.

trials funded by the NHLBI was 27% between 1997 and 2006. In European CVD clinical trials, the proportion of women enrolled was even lower.<sup>1</sup>

- **Insufficient awareness among women and physicians of sex-specific symptoms and presentation of CVD.** A study recently presented at the ESC's Acute CardioVascular Care 2021 congress showed that 41% of women wait more than 12 hours before seeking help in case of chest pain.<sup>2</sup>



## Zusammenfassung



- Plausible psychobiologische Mechanismen
- Interdisziplinarität zentraler Pfeiler – Collaborative Care
- Alters- und geschlechtsspezifische Aspekte berücksichtigen