



Fundação Universitária de Cardiologia

A SAÚDE DO CORAÇÃO

INSTITUTO DE CARDIOLOGIA – FUNDAÇÃO UNIVERSITÁRIA DE CARDIOLOGIA

DR. LUCIANO CEOLIN ROSA – CREMERS 22182

PRECEPTOR DA RESIDÊNCIA DE CARDIOLOGIA CLÍNICA

DIRETOR TÉCNICO DO INSTITUTO DE CARDIOLOGIA

POR QUÊ?

No Mundo

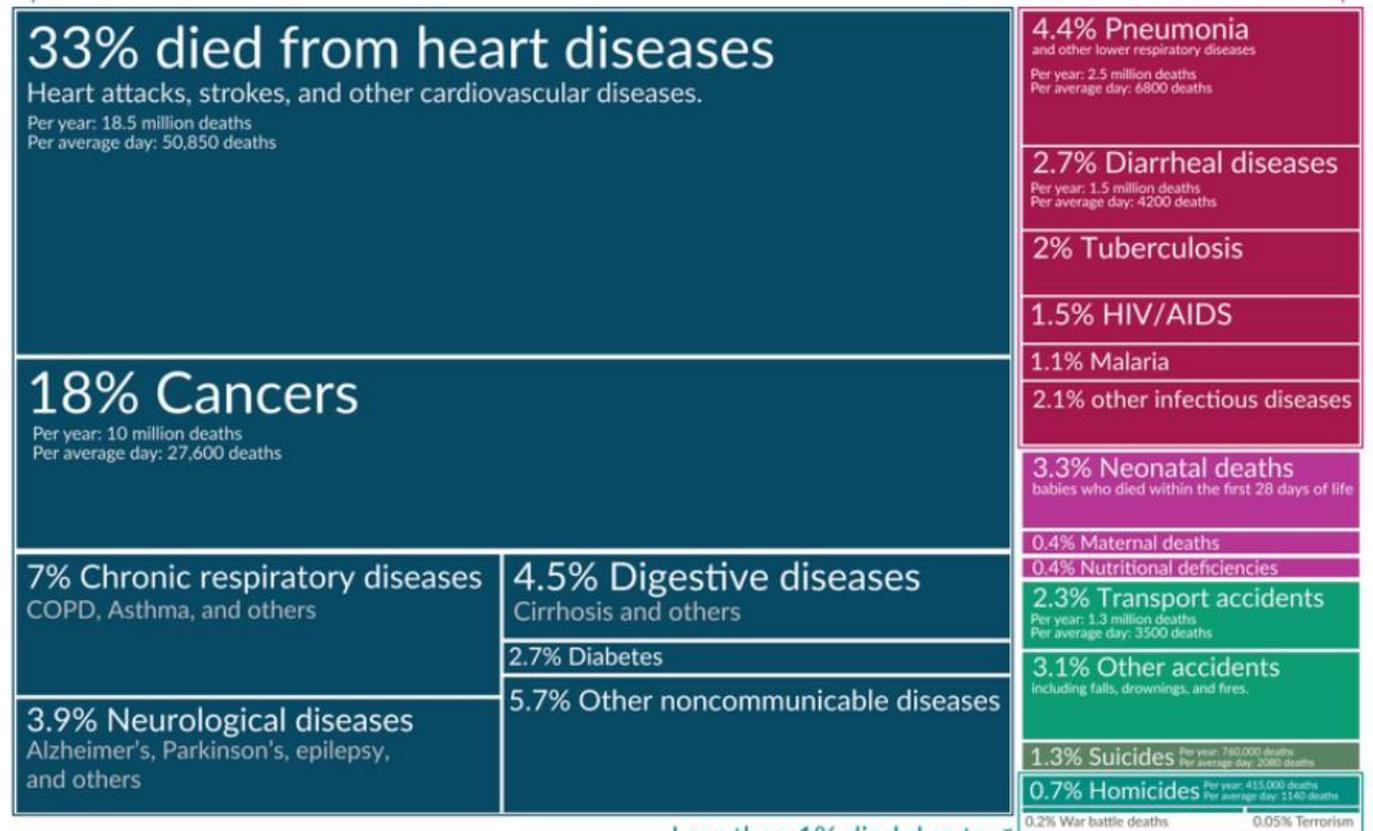
What do people die from? Causes of death globally in 2019

Our World
in Data

The size of the entire visualization represents the total number of deaths in 2019: 55 million.
Each rectangle within it is proportional to the share of deaths due to a particular cause.

74% died from noncommunicable diseases

14% died from infectious diseases



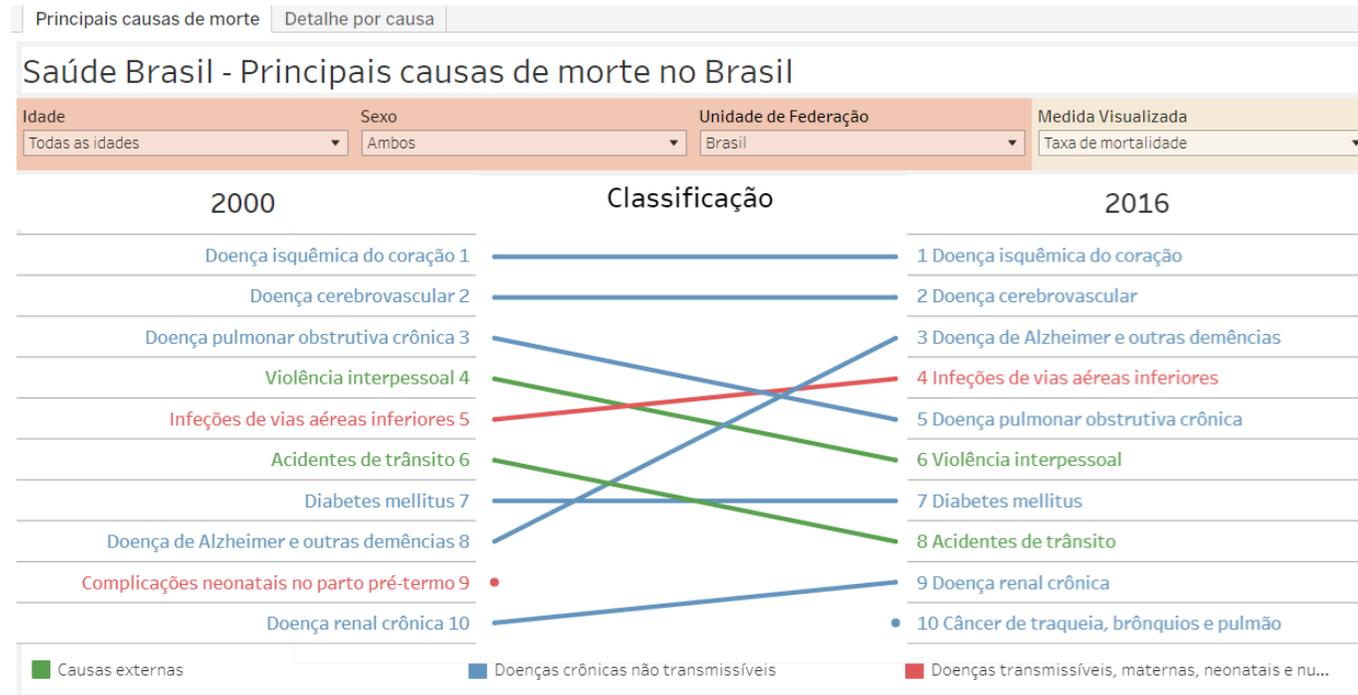
Less than 1% died due to interpersonal violence

Data source: IHME Global Burden of Disease and Global Terrorism Database
OurWorldinData.org - Research and data to make progress against the world's largest problems.

Licensed under CC-BY by the author Max Roser

POR QUÊ?

No Brasil



POR QUÊ?

No RS

Tabela 2

Número de óbitos da população masculina e feminina, segundo os capítulos da Classificação Internacional de Doenças (CID-10), e razão entre as taxas de mortalidade masculina e feminina no Rio Grande do Sul — 2020

CAPÍTULO DA CID-10	NÚMERO DE ÓBITOS		TOTAL (1)	RAZÃO ENTRE AS TAXAS DE MORTALIDADE MASCULINA/FEMININA
	População Masculina	População Feminina		
Aparelho circulatório	10.611	10.457	21.068	1,07
Neoplasias	10.281	8.916	19.197	1,22
Infeciosas e parasitárias	6.991	5.540	12.531	1,33
Aparelho respiratório	4.177	3.803	7.980	1,16
Causas externas	5.615	1.591	7.210	3,72
Endócrinas nutricionais e metabólicas	2.890	3.337	6.227	0,91
Mal definidas	2.559	2.038	4.604	1,32
Sistema nervoso	1.686	2.640	4.326	0,67
Aparelho digestivo	2.268	1.641	3.909	1,46
Aparelho geniturinário	1.268	1.486	2.755	0,90
Transtornos mentais e comportamentais	717	201	918	3,76
Perinatal	384	336	720	1,21
Malformação congênita	223	217	442	1,08
Demais causas	331	573	904	-
Todas as causas	50.001	42.776	92.791	1,23

Fonte dos dados brutos: Datasus (BRASIL, 2022).
IBGE (2022).

(1) Inclusive ignorados.

POR QUÊ?

Em POA

Causa básica de Óbito

Causa básica de mortalidade por capítulo e grupo em 2023



Mortalidade por causa básica de óbito em 2023

Capítulo	Grupo	Óbitos
II	C15-C26 - Neoplasias malignas dos órgãos digestivos	558
IX	I60-I69 - Doenças cerebrovasculares	551
IV	E10-E14 - Diabetes mellitus	497
VI	G30-G32 - Outras doenças degenerativas do sistema nervoso	493
IX	I20-I25 - Doenças isquêmicas do coração	419
II	C30-C39 - Neoplasias malignas do aparelho respiratório e dos órgãos intratorácicos	293
X	J40-J47 - Doenças crônicas das vias aéreas inferiores	293
IX	I10-I15 - Doenças hipertensivas	278
IX	I30-I32 - Outras formas de doença do coração	244
XX	X85-Y09 - Agressões	165
II	C81-C96 - Neoplasias (tumores) malignas (os) declaradas	145

POR QUÊ?

- ▶ Porque é a doença mais importante de todas as doenças;
- ▶ Porque impacta na nossa vida e na vida de todo o mundo;
- ▶ Porque é possível modificá-la e reduzir o seu impacto na nossa vida e na vida de todo o mundo.



E A GENÉTICA?



ESC
European Society
of Cardiology

The ESC

Congresses & Events

Journals

Guidelines

Education

Research

European Society of Cardiology > The ESC > ESC Press Office > Press releases

ESC Press Office

Press releases

Press Services & Media Alerts

ESC Congresses

Fact sheets

ESC Media and Embargo Policy

Lifestyle, not genetics, explains most premature heart disease

02 Sep 2019

Topic(s): *Stress, Psycho-Social and Cultural Aspects of Heart Disease; Lipids; Tobacco; Physical Inactivity and Exercise;*

Paris, France - 2 Sept 2019: Physical inactivity, smoking, high blood pressure, diabetes, and high cholesterol play a greater role than genetics in many young patients with heart disease, according to research presented today at ESC Congress 2019 together with the World Congress of Cardiology. (1) The findings show that healthy behaviours should be a top priority for reducing heart disease even in those with a family history of early onset.

"Genetics are an important contributor to premature heart disease but should not be used as an excuse to say it is inevitable," said study author Dr João A. Sousa of Funchal Hospital, Portugal.

"In our clinical practice, we often hear young patients with premature heart disease 'seek shelter' and explanations in their genetics/family history," he added. "However, when we look at the data in our study, these young patients were frequently smokers, physically inactive, with high cholesterol levels and high blood pressure - all of which can be changed."

A laboratory setting with several glass pipettes hanging from the top, each with a small drop of liquid at its tip. Below them is a multi-well microplate with many wells, some containing a pinkish liquid. The background is a soft-focus green and blue.

GENÉTICA E ESTILO DE VIDA

- ▶ 5 fatores modificáveis foram avaliados em 1075 pessoas com menos de 50 anos
- ▶ 555 tinham doença precoce nas coronárias
- ▶ 520 não apresentavam doença

GENÉTICA E ESTILO DE VIDA

▶ Sedentarismo



▶ Tabagismo



▶ Hipertensão



▶ Diabetes



▶ Hipercolesterolemia (Colesterol Alto)





GENÉTICA E ESTILO DE VIDA

- ▶ 73% dos pacientes doentes tinham pelo menos 3 fatores de risco comparado a 31% dos pacientes saudáveis.

A probabilidade de desenvolver doença foi:

- ▶ **3x** para 1 fator de risco
- ▶ **7x** para 2 fatores de risco
- ▶ **24x** para 3 fatores de risco



GENÉTICA E ESTILO DE VIDA

- ▶ “ Nosso estudo trouxe fortes evidências que pessoas com história familiar de doença cardíaca precoce devem adotar um estilo de vida saudável, visto que seus maus hábitos de vida são um fator de risco maior para a doença do que a genética. Isto significa - parar de fumar, exercitar-se regularmente, adotar uma dieta saudável e verificar a pressão e o colesterol.”

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Genetic Risk, Adherence to a Healthy Lifestyle, and Coronary Disease

Amit V. Khera, M.D., Connor A. Emdin, D.Phil., Isabel Drake, Ph.D., Pradeep Natarajan, M.D., Alexander G. Bick, M.D., Ph.D., Nancy R. Cook, Ph.D., Daniel I. Chasman, Ph.D., Usman Baber, M.D., Roxana Mehran, M.D., Daniel J. Rader, M.D., Valentin Fuster, M.D., Ph.D., Eric Boerwinkle, Ph.D., Olle Melander, M.D., Ph.D., Marju Orho-Melander, Ph.D., Paul M Ridker, M.D., and Sekar Kathiresan, M.D.

GENÉTICA
E ESTILO
DE VIDA

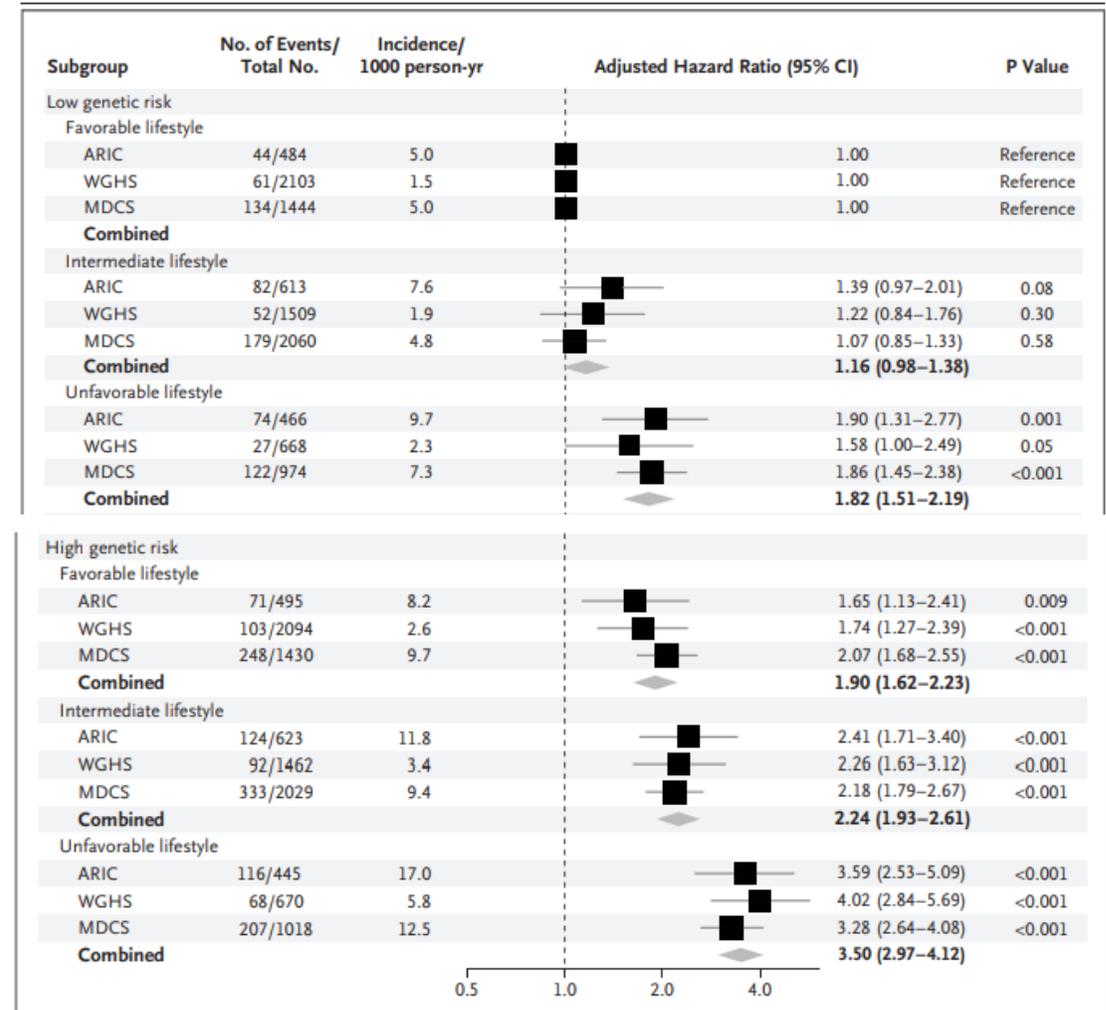
GENÉTICA E ESTILO DE VIDA

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Genetic Risk, Adherence to a Healthy Lifestyle, and Coronary Disease

Amit V. Khera, M.D., Connor A. Emdin, D.Phil., Isabel Drake, Ph.D., Pradeep Natarajan, M.D., Alexander G. Bick, M.D., Ph.D., Nancy R. Cook, Ph.D., Daniel I. Chasman, Ph.D., Usman Baber, M.D., Roxana Mehran, M.D., Daniel J. Rader, M.D., Valentin Fuster, M.D., Ph.D., Eric Boerwinkle, Ph.D., Olle Melander, M.D., Ph.D., Marju Orho-Melander, Ph.D., Paul M Ridker, M.D., and Sekar Kathiresan, M.D.



GENÉTICA E ESTILO DE VIDA

- ▶ 55.685 participantes
- ▶ Entre os participantes com alto risco genético, um estilo de vida favorável reduziu aproximadamente 50% o risco de doença comparado a um estilo não favorável.
- ▶ Favorável - pelo menos 3 dos 4 fatores
- ▶ Desfavorável - nenhum ou só 1 dos 4 fatores

ESTILO DE VIDA - FATORES

- ▶ 1 - não fumar;
- ▶ 2 - não ter obesidade (IMC > 30);
- ▶ 3 - atividade física regular (pelo menos 1x/semana);
- ▶ 4 - alimentação saudável (pelo menos metade das características –



frutas, nozes, vegetais, cereais integrais, peixe e laticínios -



cereais refinados, carnes processadas ou carne vermelha,
bebidas adoçadas com açúcar;
gorduras hidrogenadas;
sódio.

Smoking cessation, but not reduction, reduces cardiovascular disease incidence

**Su-Min Jeong^{1†}, Keun Hye Jeon^{2†}, Dong Wook Shin ^{1,3*}, Kyungdo Han⁴,
Dahye Kim⁵, Sang Hyun Park⁵, Mi Hee Cho ⁶, Cheol Min Lee⁷,
Ki-Woong Nam⁸, and Seung Pyo Lee ⁹**

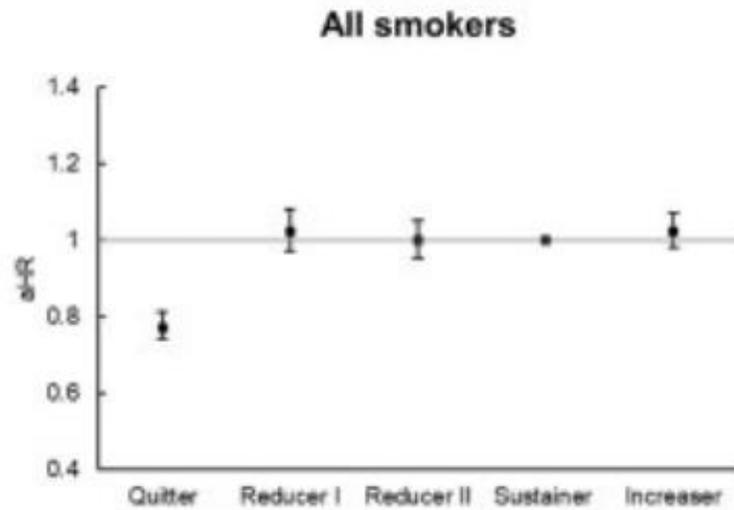
¹Department of Family Medicine/Supportive Care Center, Samsung Medical Center, 81 Irwon-Ro, Gangnam-gu, Seoul 06351, Republic of Korea; ²Department of Family Medicine, CHA Gumi Medical Center, CHA University 12, Sinsi-ro 10-gil, Gumi-si, Gyeongsangbuk-do 39295, Republic of Korea; ³Department of Clinical Research Design & Evaluation, Samsung Advanced Institute for Health Science & Technology (SAIHST), Sungkyunkwan University, 81 Irwon-Ro, Gangnam-gu, Seoul 06351, Republic of Korea; ⁴Department of Statistics and Actuarial Science, Soongsil University, 369, Sangdo-ro, Dongjak-gu, Seoul 06978, Republic of Korea; ⁵Department of Medical Statistics, The Catholic University of Korea, 296-12, Changgyeonggung-ro, Jongno-gu, Seoul 03083, Republic of Korea; ⁶Samsung C&T Medical Clinic, Kangbuk Samsung Hospital, Sungkyunkwan University School of Medicine, 29, Saemunan-ro, Jongno-gu, Seoul 03181, Republic of Korea; ⁷Department of Family Medicine, Healthcare System Gangnam Center, Seoul National University Hospital, 152, Teheran-ro, Gangnam-gu, Seoul 06236, Republic of Korea; ⁸Department of Neurology, Seoul National University Hospital, 101, Daehak-ro, Jongno-gu, Seoul 03080, Republic of Korea; and ⁹Department of Internal Medicine and Cardiovascular Center, Seoul National University Hospital, 101, Daehak-ro, Jongno-gu, Seoul 03080, Republic of Korea

Received 23 February 2021; revised 4 June 2021; editorial decision 10 August 2021; accepted 10 August 2021; online publish-ahead-of-print 25 August 2021

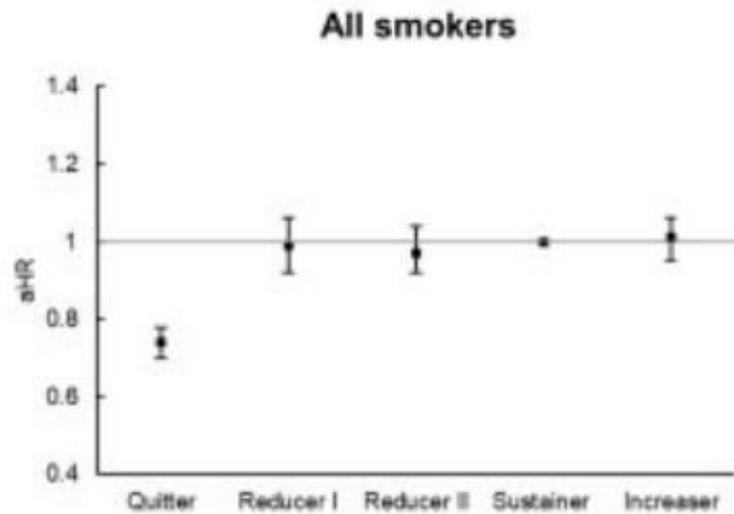
See page 4154 for the editorial comment for this article 'Importance of smoking cessation for cardiovascular risk reduction', by A.L. Møller and C. Andersson, <https://doi.org/10.1093/eurheartj/ehab541>.

TABAGISMO

A Stroke



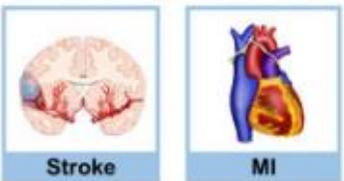
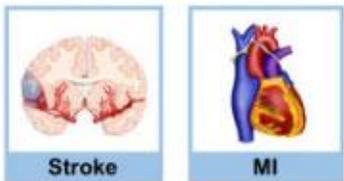
B Myocardial infarction



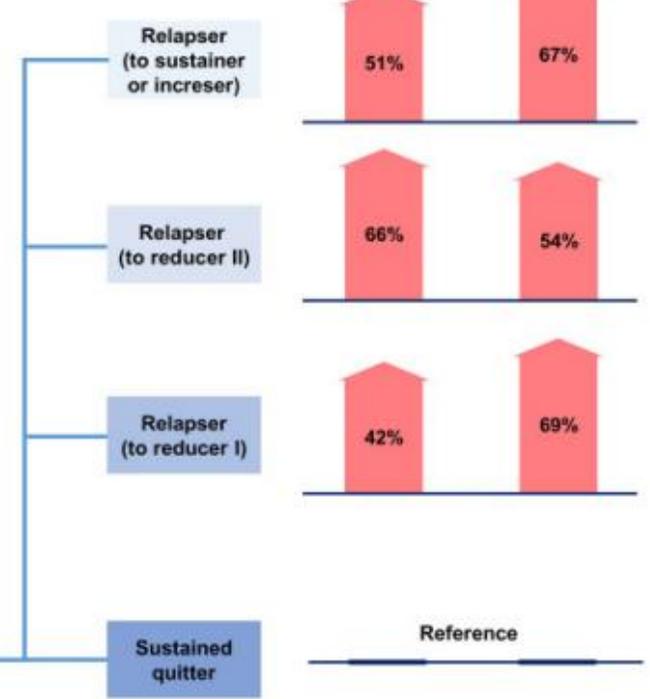
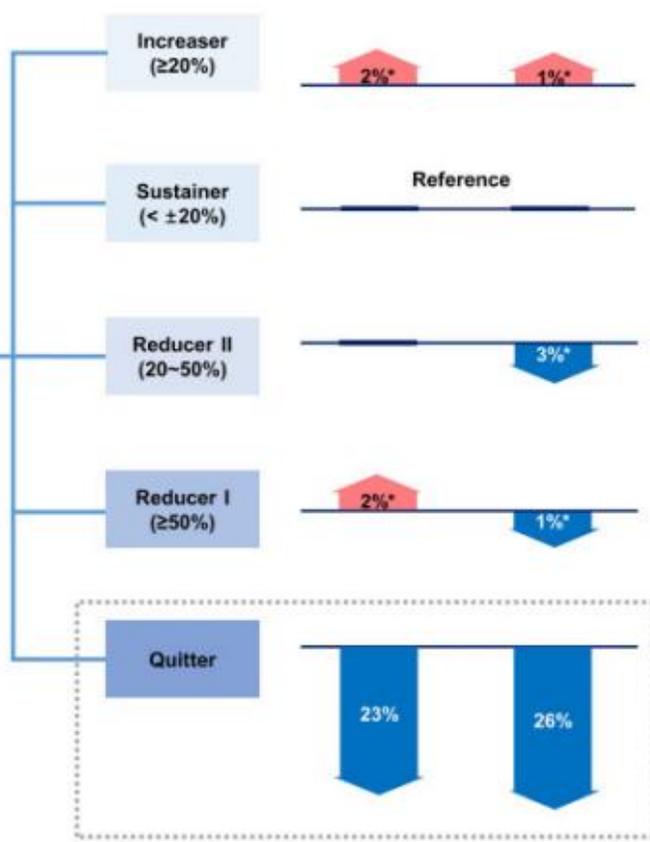
TABAGISMO
897.795 participantes

Primary analyses
: Follow-up (mean 6.2 years)

Subgroup analyses
: Follow-up (mean 4.3 years)



Current smoker



Smoking cessation, but not reduction, was associated with decreased risk of stroke and MI.
* No statistical significance

Relapsed smoking was associated with increased risk of stroke and MI compared to sustained quitting.

TABAGISMO

897.795
participantes

OBESIDADE

VERIFICAR O PESO PELO MENOS 1 VEZ POR SEMANA!



Google

balança digital

Imagens

Shopping

Para Cozinha

Corporal

150kg

Mercado Livre

Bioimpedância

Multilaser

Vídeos

Todos os filtros

Ferramentas

Aproximadamente 11.900.000 resultados (0,49 segundos)

Patrocinado



Balança Digital Bioimpedânc...

R\$ 38,00

Amazon.com...



Balança Bioimpedânc...

R\$ 78,90

Casa prestige



Balança Digital Corporal...

R\$ 314,00

Tramontina



Balança Digital de Banheiro...

R\$ 40,95

Amazon.com...



Balança corporal digit...

R\$ 99,90

Mercado Livre



Balança Corporal...

R\$ 132,90

Magazine Lui...



Balança Digital Inteligente co...

R\$ 59,90

Panvel



Balança de Bioimpedânc...

R\$ 299,90

Yunmai Brasi...

ATIVIDADE FÍSICA

A SEMANA TEM 168 HORAS – 10.080
MINUTOS:

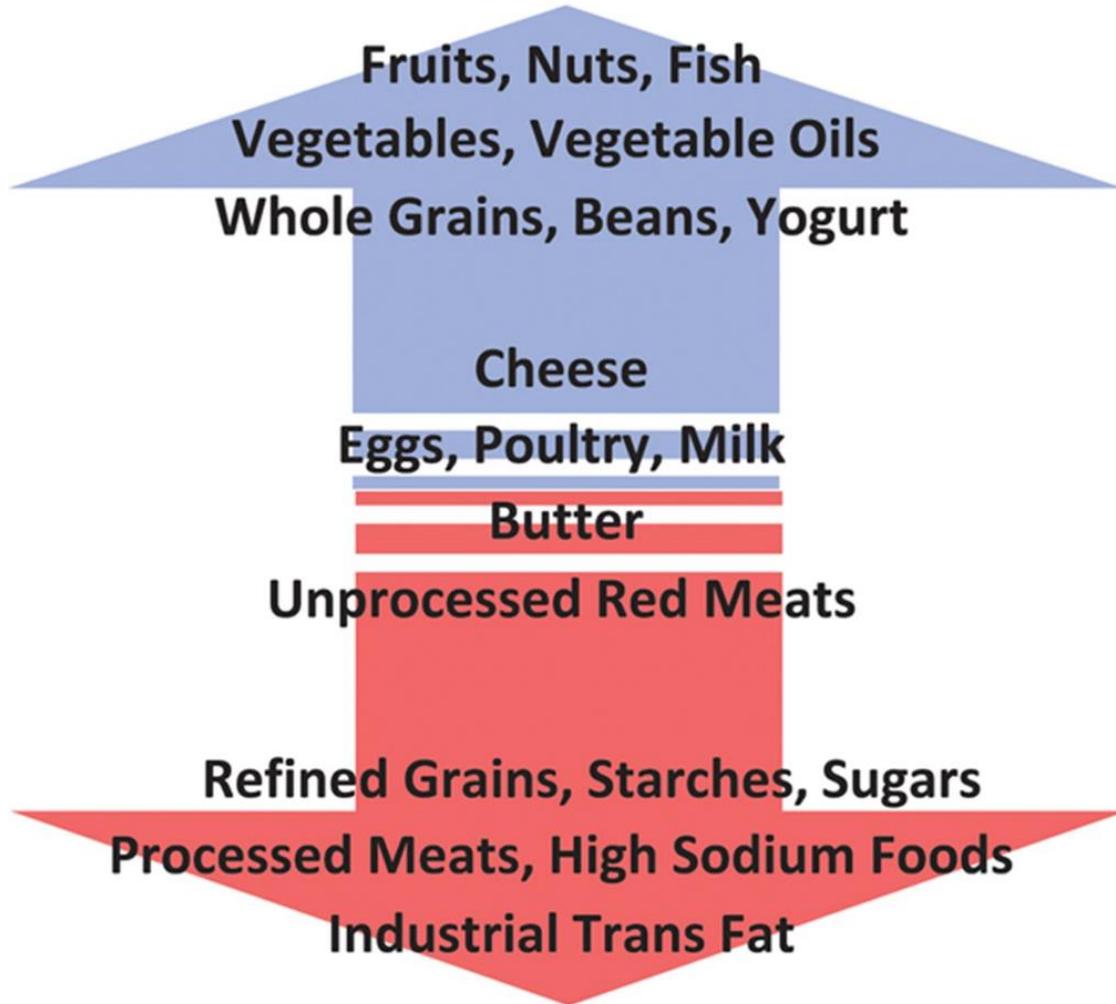
150 MINUTOS POR SEMANA - < 1,5 %
DO TEMPO DA SEMANA;

3 SÉRIES DE CAMINHADAS DE 50
MINUTOS TEM COMPROVAÇÃO PARA
REDUÇÃO DO DIABETES;

SE NÃO FOR POSSÍVEL, PELO MENOS 1X
POR SEMANA É MELHOR QUE NADA!



Benefit



Harm

ALIMENTAÇÃO
SAUDÁVEL

Fibras e mortalidade por todas as causas

Association Between Dietary Fiber and Lower Risk of All-Cause Mortality: A Meta-Analysis of Cohort Studies

Yang Yang, Long-Gang Zhao, Qi-Jun Wu, Xiao Ma, and Yong-Bing Xiang*

Initially submitted March 28, 2014; accepted for publication September 2, 2014.

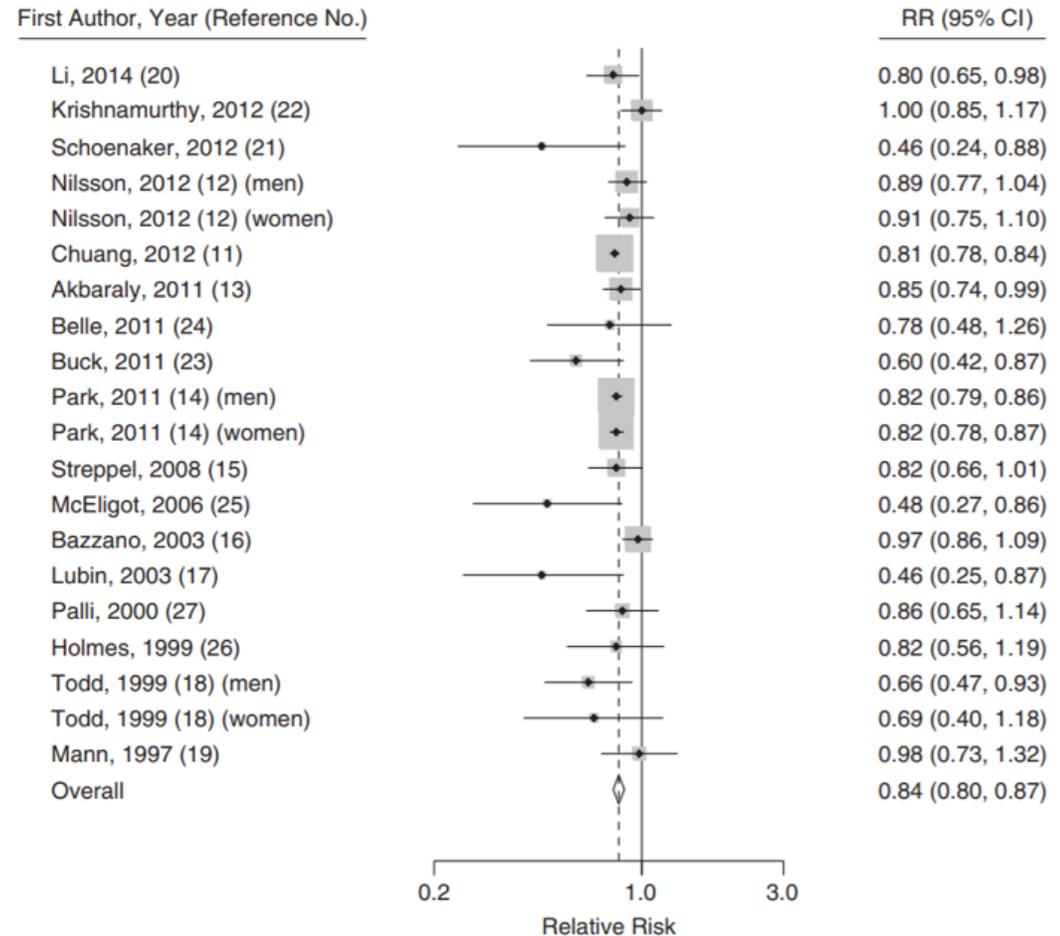


Figure 2. Results from meta-analysis of the association between dietary fiber intake and all-cause mortality (random-effects model), 1997–2014. Relative risks (RRs) compare persons in the top and bottom tertiles of dietary fiber intake. Squares represent study-specific estimates (size of the square reflects the study-specific statistical weight); horizontal lines represent 95% confidence intervals (CIs); diamonds represent the summary estimate with corresponding 95% confidence interval.

Bebidas adoçadas com açúcar

Epidemiology and Prevention

Sweetened Beverage Consumption, Incident Coronary Heart Disease, and Biomarkers of Risk in Men

Lawrence de Koning, PhD; Vasanti S. Malik, ScD; Mark D. Kellogg, PhD; Eric B. Rimm, ScD; Walter C. Willett, MD, DrPH; Frank B. Hu, MD, PhD

Background—Sugar-sweetened beverage consumption is associated with weight gain and risk of type 2 diabetes mellitus. Few studies have tested for a relationship with coronary heart disease (CHD) or intermediate biomarkers. The role of artificially sweetened beverages is also unclear.

Methods and Results—We performed an analysis of the Health Professionals Follow-Up Study, a prospective cohort study including 42 883 men. Associations of cumulatively averaged sugar-sweetened (eg, sodas) and artificially sweetened (eg, diet sodas) beverage intake with incident fatal and nonfatal CHD (myocardial infarction) were examined with proportional hazard models. There were 3683 CHD cases over 22 years of follow-up. Participants in the top quartile of sugar-sweetened beverage intake had a 20% higher relative risk of CHD than those in the bottom quartile (relative risk=1.20; 95% confidence interval, 1.09–1.33; *P* for trend <0.01) after adjustment for age, smoking, physical activity, alcohol, multivitamins, family history, diet quality, energy intake, body mass index, pre-enrollment weight change, and dieting. Artificially sweetened beverage consumption was not significantly associated with CHD (multivariate relative risk=1.02; 95% confidence interval, 0.93–1.12; *P* for trend=0.28). Adjustment for self-reported high cholesterol, high triglycerides, high blood pressure, and diagnosed type 2 diabetes mellitus slightly attenuated these associations. Intake of sugar-sweetened but not artificially sweetened beverages was significantly associated with increased plasma triglycerides, C-reactive protein, interleukin-6, and tumor necrosis factor receptors 1 and 2 and decreased high-density lipoprotein, lipoprotein(a), and leptin (*P*<0.02).

Conclusions—Consumption of sugar-sweetened beverages was associated with increased risk of CHD and some adverse changes in lipids, inflammatory factors, and leptin. Artificially sweetened beverage intake was not associated with CHD risk or biomarkers. (*Circulation*. 2012;125:1735-1741.)

Key Words: epidemiology ■ inflammation ■ lipids ■ myocardial infarction ■ nutrition



BEBIDAS ADOÇADAS COM AÇÚCAR

- ▶ <https://www.youtube.com/watch?v=u4RQ3ngQSJY>
- ▶ <https://doceveneno.org.br/>

TAKE HOME MESSAGES

- ▶ As doenças cardíacas são a principal causa de morbidade e mortalidade no mundo;
- ▶ É possível modificar;
- ▶ Não fume;
- ▶ Verifique o peso pelo menos 1 vez por semana;
- ▶ Atividade física – qualquer coisa é melhor que nada;
- ▶ Mais fibras, menos açúcar!

TAKE HOME MESSAGES

Muito
Obrigado!

lucianoceolinrosa@gmail.com

- ▶ As doenças cardíacas são a principal causa de morbidade e mortalidade no mundo;
- ▶ É possível modificar;
- ▶ Não fume;
- ▶ Verifique o peso pelo menos 1 vez por semana;
- ▶ Atividade física – qualquer coisa é melhor que nada;
- ▶ Mais fibras, menos açúcar!