Allineare Sanità & Salute
Fondazione

(Corona)Virus e batteri:
rispettare la febbre;
e misure protettive individuali da gravi infezioni

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Oggi: Comitato scientifico Fondazione *Allineare Sanità e Salute*

Allineare Sanità & Salute
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Dichiarazione

Come membro della Fondazione *Allineare Sanità e Salute* dichiaro che la Fondazione si regge sul lavoro volontario e gratuito di Consiglio Direttivo, Comitato scientifico e autori delle pubblicazioni.

E che non presenta conflitto, ma **allineamento** con gli interessi del Servizio Sanitario Nazionale e della Salute della comunità dei cittadini.

Un motivo di ansia e frustrazione nelle persone deriva dal senso di impotenza. Oltre alla doverosa adesione al distanziamento sociale richiesto dalle autorità sanitarie, si pensa di non poter fare altro che *affidarsi* e *sperare*.

Invece, con questo, come con altri germi patogeni, chiunque può mettere in atto azioni chiave per difendersi! Vediamone un po'

Parlerò:

1. di alcune premesse per inquadrare in modo corretto l'argomento «microbi» e del punto chiave della carica infettante

2. di alcune misure concrete e utili per chiunque, aggiuntive a quanto ogni giorno comunicano le Autorità sanitarie

3. di alcune misure strategiche attuabili da ciascuno, che consentano di affrontare le infezioni con buone prospettive di non divenirne vittime

Il nostro corpo è composto da circa

10 quadrilioni (cioè miliardi di miliardi)

di cellule umane

Ma ospita :

Almeno **100** quadrilioni di cellule di batteri!

E chissà quanti quadrilioni di virus !!

Una infezione non significa malattia: la trasmissione di una malattia avviene se

- ….
- la **dose infettante è sufficiente** (→ ridurre la carica!)
- vi sono le **condizioni ambientali favorevoli** (→ ridurre la carica infettante!)
- **il nostro organismo**) **è suscettibile** (→ migliorare la salute/potenziare ns difese!)

- **quindi ….**

- **la maggioranza delle infezioni non comporta una malattia !!**

Importanza della carica (microbica)!

C’è carica…

… e Caricaaa!!!

Attenzione ai rubinetti! nell'aprire un rubinetto a manopola ruotandolo, ciascuno vi deposita i suoi germi. Dopo un lavaggio delle mani con sapone, chi chiude la manopola in parte li riprende; e ne lascia altri per chi vi accede dopo, che li raccoglie proprio attuando una misura "preventiva".

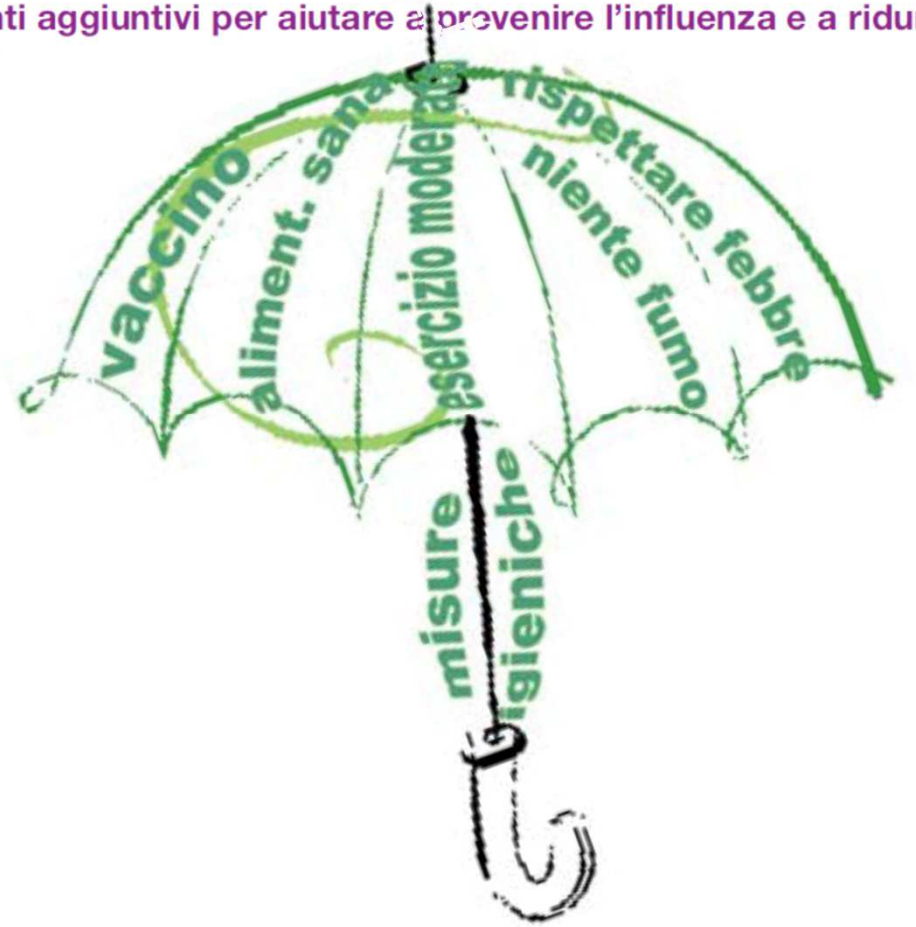
2. Alcu[illegible] nicato

Pillole
di educazione sanitaria per cittadini-consumatori

scheda 13

Prevenzione dell'influenza 2005

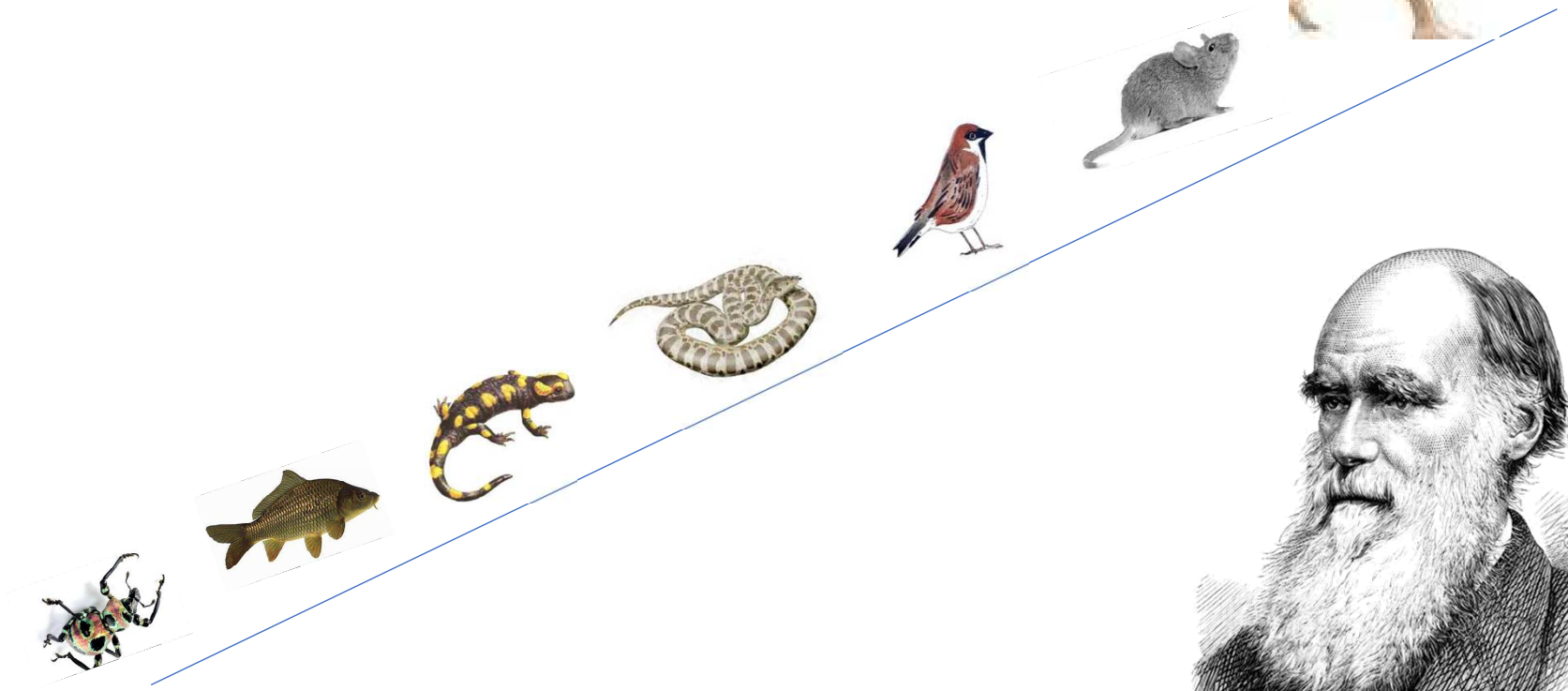
Oltre alla vaccinazione di anziani e soggetti a rischio, tutti possono adottare provvedimenti aggiuntivi per aiutare a prevenire l'influenza e a ridurne le complicanze



La febbre

Una lettera su Quotidiano Sanità "Coronavirus. Qualche consiglio in più…" aveva ribadito il ruolo della **febbre, uno dei più efficaci meccanismi di difesa contro le infezioni** (Evans SS, Nat Rev Immunol 2015), che fa lavorare al meglio tutte le nostre difese naturali, di particolare importanza verso infezioni da virus, contro cui gli antibiotici non hanno alcuna utilità. Basterebbe

considerare che un meccanismo preservato nella storia evolutiva già a partire da insetti, pesci ossei, anfibi, rettili, uccelli e mammiferi deve avere un ruolo cruciale per la sopravvivenza[1].



Anche l'**infiammazione** acuta indotta nei tessuti dai prodotti delle cellule infettate dai virus provoca alterazioni locali che contrastano con efficacia la replicazione virale[2], mentre in animali di laboratorio i farmaci antinfiammatori facilitano in tante infezioni la moltiplicazione e diffusione dei virus, spesso con gravi conseguenze[2].

Febbre e infiammazione acuta sono di regola utili alla guarigione di infezioni (salvo che in malattie invasive come sepsi, meningiti o encefaliti, dove agiscono fuori controllo peggiorando gli esiti): non ci si dovrebbe affrettare a sopprimerle con farmaci.

Almeno fino a prova contraria, da acquisire con priorità

NB: la febbre è di norma un'efficace **prima risorsa** contro le infezioni, in particolare nelle fasi iniziali, e nelle infezioni lievi e moderate,

benché in certe condizioni (es. **pazienti pluripatologici/già compromessi**, **infiammazioni molto gravi**...) un **eccesso** di temperatura e soprattutto **di infiammazione** vadano tenuti sotto controllo, anche con potenti antinfiammatori, il cui impiego è competenza dei clinici.

Adverse Effects of Aspirin, Acetaminophen, and Ibuprofen on Immune Function, Viral Shedding, and Clinical Status in Rhinovirus-Infected Volunteers

Neil M. H. Graham, Christopher J. Burrell, Robert M. Douglas,* Pamela Debelle, and Lorraine Davies

From the Department of Community Medicine, University of Adelaide, and Department of Virology, Institute of Medical and Veterinary Science, Adelaide, South Australia

A double-blind, placebo-controlled trial was conducted to study the effects of over-the-counter analgesic/antipyretic medications on virus shedding, immune response, and clinical status in the common cold. Sixty healthy volunteers were challenged intranasally with rhinovirus type 2 and randomized to one of four treatment arms: aspirin, acetaminophen, ibuprofen, or placebo. Fifty-six volunteers were successfully infected and shed virus on at least 4 days after challenge. Virus shedding, antibody levels, clinical symptoms and signs, and blood leukocyte levels were carefully monitored. Use of aspirin and acetaminophen was associated with suppression of serum neutralizing antibody response ($P < .05$ vs. placebo) and increased nasal symptoms and signs ($P < .05$ vs. placebo). A concomitant rise in circulating monocytes suggested that the suppression of antibody response may be mediated through drug effects on monocytes and/or mononuclear phagocytes. There were no significant differences in viral shedding among the four groups, but a trend toward longer duration of virus shedding was observed in the aspirin and acetaminophen groups.

The Journal of Infectious Diseases 1990;162:1277–1282

Table 2. Comparison of antibody levels, nasal obstruction scores, nasal turbinate swelling, cervical lymphadenitis, and virus shedding duration by type of medication.

	Aspirin (n = 15)	Aceta-minophen (n = 14)	Ibuprofen (n = 13)	Placebo (n = 14)	Overall χ^2 (3 df)	Overall P
Antibody rise						
Fourfold or less, day 14	9*	7	6	2	7.5	.06
Fourfold or less, day 28	5	6*	3	0	10.7	.01
Nasal obstruction score >5	6*	3	2	0	9.6	.02
Nasal turbinate swelling score >0	5	5*	3	0	9.3	.03
Cervical adenitis score >0	0	1	1	4	7.1	.0
Virus shedding duration >8 days	7	7	4	3	3.4	.3

* Significantly different from placebo, $P < .05$ (1 df).

Table 3. Geometric mean antibody titers (95% confidence intervals) before challenge and on days 7, 14, and 28 after challenge by type of medication.

	Aspirin	Acetaminophen	Ibuprofen	Placebo
Before challenge	3.4 (2.7–4.2)	3.3 (2.6–4.2)	3.8 (2.9–4.9)	3.5 (2.8–4.5)
Day 7	2.5 (2.1–3.0)	2.5 (2.0–3.2)	3.2 (2.1–4.7)	3.6 (2.3–5.6)
Day 14	13.1 (6.7–25.6)	13.3 (5.2–34.3)	19.1 (8.6–42.5)	31.2 (17.6–55.5)
Day 28	24.4 (20.7–45.0)	18.9 (11.3–31.5)	34.4 (17.9–65.9)	52.3 (33.7–81.1)

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Research

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http://dx.doi.org/10.1098/rspb.2013.2570

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Population-level effects of suppressing fever

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Fever is commonly attenuated with antipyretic medication as a means to treat unpleasant symptoms of infectious diseases. We highlight a potentially important negative effect of fever suppression that becomes evident at the population level: reducing fever may increase transmission of associated infections. A higher transmission rate implies that a larger proportion of the population will be infected, so widespread antipyretic drug use is likely to lead to more illness and death than would be expected in a population that was not exposed to antipyretic pharmacotherapies. We assembled the published data available for estimating the magnitudes of these individual effects for seasonal influenza. While the data are incomplete and heterogeneous, they suggest that, overall, fever suppression increases the expected number of influenza cases and deaths in the US: for pandemic influenza with reproduction number $\mathcal{R} \sim 1.8$, the estimated increase is 1% (95% CI: 0.0–2.7%), whereas for seasonal influenza with $\mathcal{R} \sim 1.2$, the estimated increase is 5% (95% CI: 0.2–12.1%).

E infine parliamo di alcune **misure strategiche** attuabili da ciascuno,

che consentano di **affrontare le infezioni con buone prospettive** di non divenirne vittime

Esempi **comparativi** di cause di morte con ampie possibilità preventive (Italia)

Cause di morte	n. morti /anno stimati (circa)	Incidenza per 100.000 abitanti	Fonte
Fumo di tabacco	**85.000** **96.000**	**~140** **~159**	OMS Glob. Rep. 2012 GBD 2015 (Lancet 2017)
Sedentarietà	**88.200**	**~147**	Rapp. Istisan 2018
Inquinamento atmosferico	**74.600** **35.400**	**~123** **~59**	Agenzia UE Amb 2017 CCM+Dip Epid. Lazio
<20 g/die **di *noci*** (frutta secca guscio) vs. i **2 g al dì medi**	**69.700**	**~115**	Rev. Sist. BMC Med 2016 (Imperial College Londra, ecc)
<500 g/dì **frutta/v.**	**35.400**	**~59**	Rev. Sist. BMJ 2017
<90 g/dì **cereal int**	**decine migliaia**	**>**50 ?	Rev. Sist. BMJ 2016
Alcol >1 un. alc. ♀ >2 « « ♂ (♂ ~14%, ♀ ~6%)	**~20.000**	**~33**	Istat, ISS, ...
Resist. antibiot.	**> 10.700**	**~18**	Lancet Infect Dis 2018
Incidenti stradali	**3.400** (e 257 mila feriti, parte con lesioni permanenti)	**~5,2**	Istat

OPEN ACCESS

Whole grain consumption and risk of cardiovascular disease, cancer, and all cause and cause specific mortality: systematic review and dose-response meta-analysis of prospective studies

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ABSTRACT

OBJECTIVE

To quantify the dose-response relation between consumption of whole grain and specific types of grains and the risk of cardiovascular disease, total cancer, and all cause and cause specific mortality.

DATA SOURCES

PubMed and Embase searched up to 3 April 2016.

STUDY SELECTION

Prospective studies reporting adjusted relative risk estimates for the association between intake of whole grains or specific types of grains and cardiovascular disease, total cancer, all cause or cause specific mortality.

DATA SYNTHESIS

Summary relative risks and 95% confidence intervals calculated with a random effects model.

RESULTS

45 studies (64 publications) were included. The summary relative risks per 90 g/day increase in whole grain intake (90 g is equivalent to three servings—for example, two slices of bread and one bowl of cereal or one and a half pieces of pita bread made from whole grains) was 0.81 (95% confidence interval 0.75 to 0.87; I^2=9%, n=7 studies) for coronary heart disease, 0.88 (0.75 to 1.03; I^2=56%, n=6) for stroke, and 0.78 (0.73 to 0.85; I^2=40%, n=10) for cardiovascular disease, with similar results when studies were stratified by whether the outcome was incidence or mortality. The relative risks for morality were 0.85 (0.80 to 0.91; I^2=37%, n=6) for total cancer, 0.83 (0.77 to 0.90; I^2=83%, n=11) for all causes, 0.78 (0.70 to 0.87; I^2=0%, n=4) for respiratory disease, 0.49 (0.23 to 1.05; I^2=85%, n=4) for diabetes, 0.74 (0.56 to 0.96; I^2=0%, n=3) for infectious diseases, 1.15 (0.66 to 2.02; I^2=79%, n=2) for diseases of the nervous system disease, and 0.78 (0.75 to 0.82; I^2=0%, n=5) for all non-cardiovascular, non-cancer causes. Reductions in risk were observed up to an intake of 210-225 g/day (seven to seven and a half servings per day) for most of the outcomes. Intakes of specific types of whole grains including whole grain bread, whole grain breakfast cereals, and added bran, as well as total bread and total breakfast cereals were also associated with reduced risks of cardiovascular disease and/or all cause mortality, but there was little evidence of an association with refined grains, white rice, total rice, or total grains.

CONCLUSIONS

This meta-analysis provides further evidence that whole grain[illegible]sociated with a reduced risk of co[illegible]ovascular disease, and to[illegible] all causes, respiratory [illegible]abetes, and all [illegible] causes. These findings sup[illegible]at recommend increased intake of whole grain to reduce the risk of chronic diseases and premature mortality.

Introduction

Cardiovascular disease and cancer remain the two most common causes of death and in 2013 accounted for 25.5

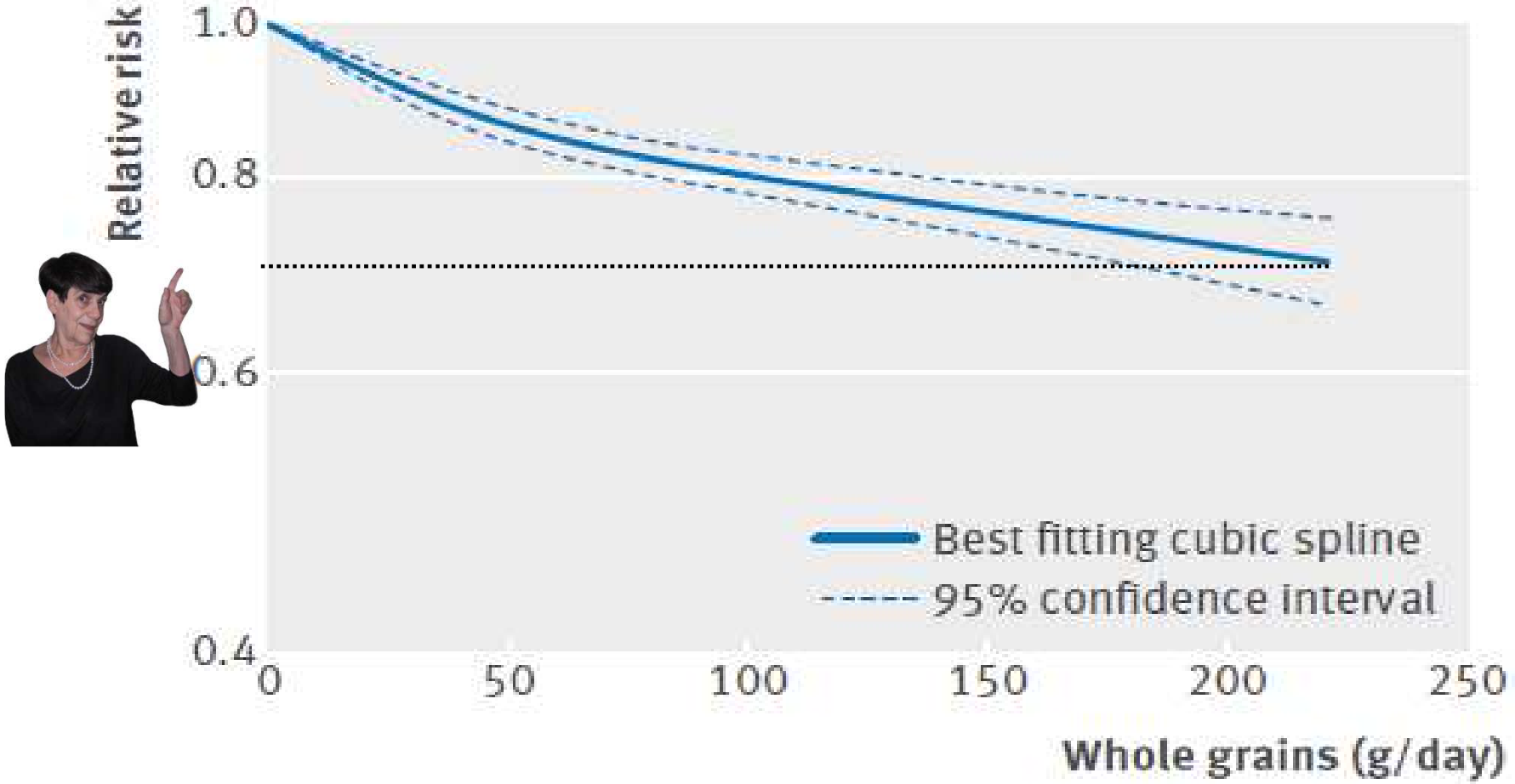


Fig 6 | Forest plot for consumption of whole grains (per 90 g/day) and risk of all cause mortality, with graph illustrating non-linear response

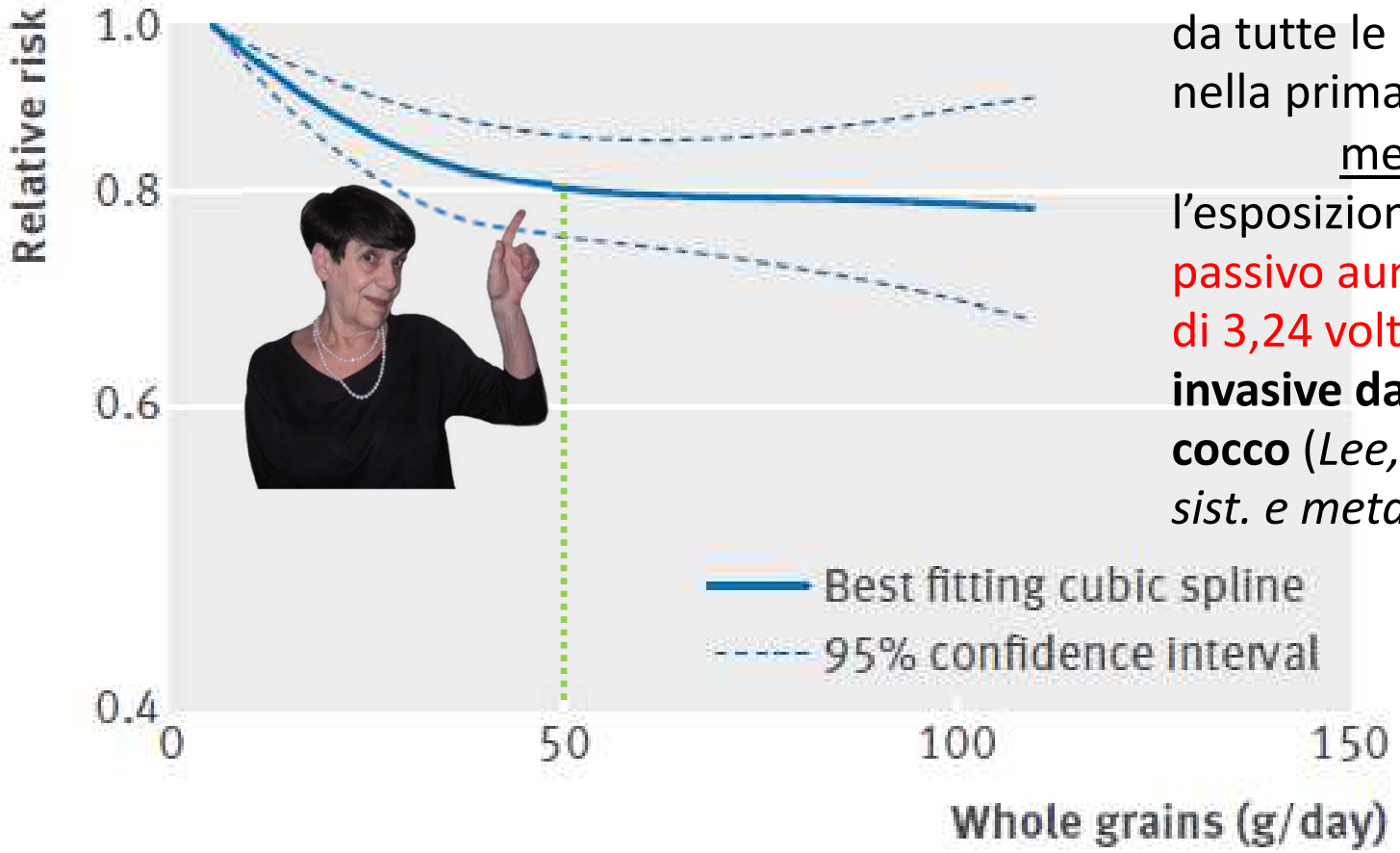


Fig 9 | Forest plot for consumption of whole grains (per 90 g/day) and risk of mortality from infectious diseases, with graph illustrating non-linear response

Ancora: l'allattamento materno x almeno 6 mesi riduce le morti da tutte le infezioni nella prima infanzia

mentre

l'esposizione al fumo passivo aumenta ad es. di 3,24 volte **malattie invasive da meningo-cocco** (*Lee, PLOS, Rev. sist. e metanalisi 2010*)

Aune et al. BMC Medicine (2016) 14:207
DOI 10.1186/s12916-016-0730-3

BMC Medicine

RESEARCH ARTICLE Open Access

Nut consumption and risk of cardiovascular disease, total cancer, all-cause and cause-specific mortality: a systematic review and dose-response meta-analysis of prospective studies

Dagfinn Aune[1,2*], NaNa Keum[3], Edward Giovannucci[3,4,5], Lars T. Fadnes[6], Paolo Boffetta[7], Darren C. Greenwood[8], Serena Tonstad[9], Lars J. Vatten[1], Elio Riboli[2] and Teresa Norat[2]

Abstract

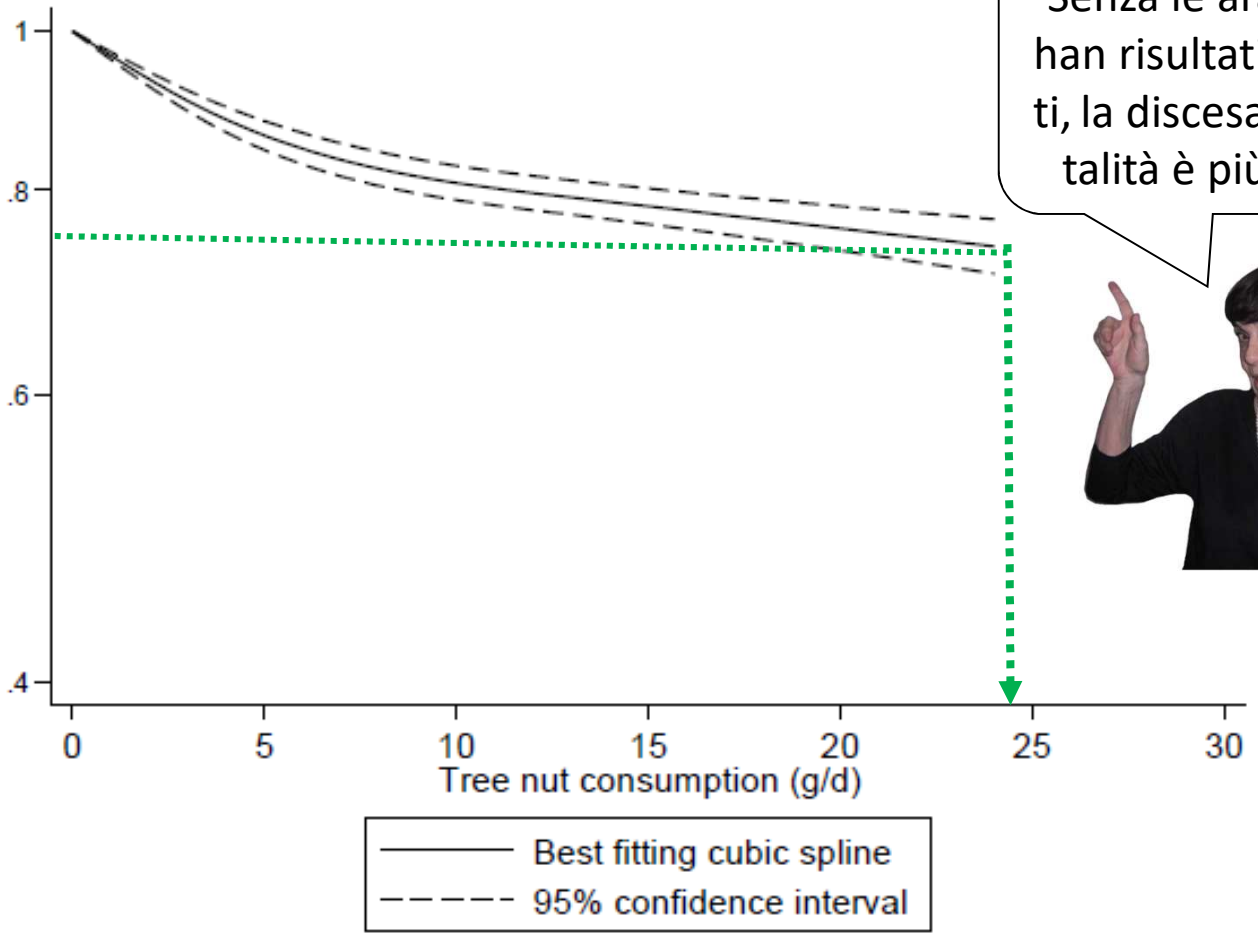
Background: Although nut consumption has been associated with a reduced risk of cardiovascular disease and all-cause mortality, data on less common causes of death has not been systematically assessed. Previous reviews missed several studies and additional studies have since been published. We therefore conducted a systematic review and meta-analysis of nut consumption and risk of cardiovascular disease, total cancer, and all-cause and cause-specific mortality.

Methods: PubMed and Embase were searched for prospective studies of nut consumption and risk of cardiovascular disease, total cancer, and all-cause and cause-specific mortality in adult populations published up to July 19, 2016. Summary relative risks (RRs) and 95% confidence intervals (CIs) were calculated using random-effects models. The burden of mortality attributable to low nut consumption was calculated for selected regions.

Results: Twenty studies (29 publications) were included in the meta-analysis. The summary RRs per 28 grams/day increase in nut intake was for coronary heart disease, 0.71 (95% CI: 0.63–0.80, $I^2 = 47\%$, $n = 11$), stroke, 0.93 (95% CI: 0.83–1.05, $I^2 = 14\%$, $n = 11$), cardiovascular disease, 0.79 (95% CI: 0.70–0.88, $I^2 = 60\%$, $n = 12$), total cancer, 0.85 (95% CI: 0.76–0.94, $I^2 = 42\%$, $n = 8$), all-cause mortality, 0.78 (95% CI: 0.72–0.84, $I^2 = 66\%$, $n = 15$), and for mortality from respiratory disease, 0.48 (95% CI: 0.26–0.89, $I^2 = 61\%$, $n = 3$), diabetes, 0.61 (95% CI: 0.43–0.88, $I^2 = 0\%$, $n = 4$), neurodegenerative disease, 0.65 (95% CI: 0.40–1.08, $I^2 = 5.9\%$, $n = 3$), infectious disease, 0.25 (95% CI: 0.07–0.85, $I^2 = 54\%$, $n = 2$), and kidney disease, 0.27 (95% CI: 0.04–1.91, $I^2 = 61\%$, $n = 2$). The results were similar for tree nuts and peanuts. If the associations are causal, an estimated 4.4 million premature deaths in the America, Europe, Southeast Asia, and Western Pacific would be attributable to a nut intake below 20 grams per day in 2013.

Conclusions: Higher nut intake is associated with reduced risk of cardiovascular disease, total cancer and all-cause mortality, and mortality from respiratory disease, diabetes, and infections.

Supplementary Figure 38. Tree nuts and all-cause mortality, nonlinear dose-response analysis



Senza le arachidi, che han risultati meno netti, la discesa della mortalità è più evidente

Usiamo poco armi aggiuntive contro le infezioni: ad es. una porzione al giorno di **noci**...

b

Nuts and infectious disease mortality, per 28 g/d

Study	Relative Risk (95% CI)
Bao, 2013, NHS [13]	0.20 (0.03, 1.20)
Bao, 2013, HPFS [13]	0.31 (0.06, 1.63)
Overall	0.25 (0.07, 0.85)

.01 .1 .25 .5 .75 1 1.5 2

Relative Risk

si associa a **riduzione fino a 4 volte** di morti da infezioni!

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doi: 10.1093/ije/dyw319
Original article

Original article

Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality–a systematic review and dose-response meta-analysis of prospective studies

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OPEN ACCESS

Mortality from different causes associated with meat, heme iron, nitrates, and nitrites in the NIH-AARP Diet and Health Study: population based cohort study **537.000 pensionati seguiti 16 anni**

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Additional material is published online only. To view please visit the journal online.

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ABSTRACT

OBJECTIVE

To determine the association of different types of meat intake and meat associated compounds with overall and cause specific mortality.

DESIGN

Population based cohort study.

SETTING

Baseline dietary data of the NIH-AARP Diet and Health Study (prospective cohort of the general population from six states and two metropolitan areas in the US) and 16 year follow-up data until 31 December 2011.

PARTICIPANTS

536 969 AARP members aged 50-71 at baseline.

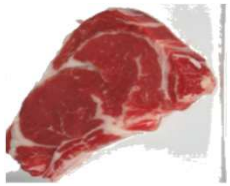
EXPOSURES

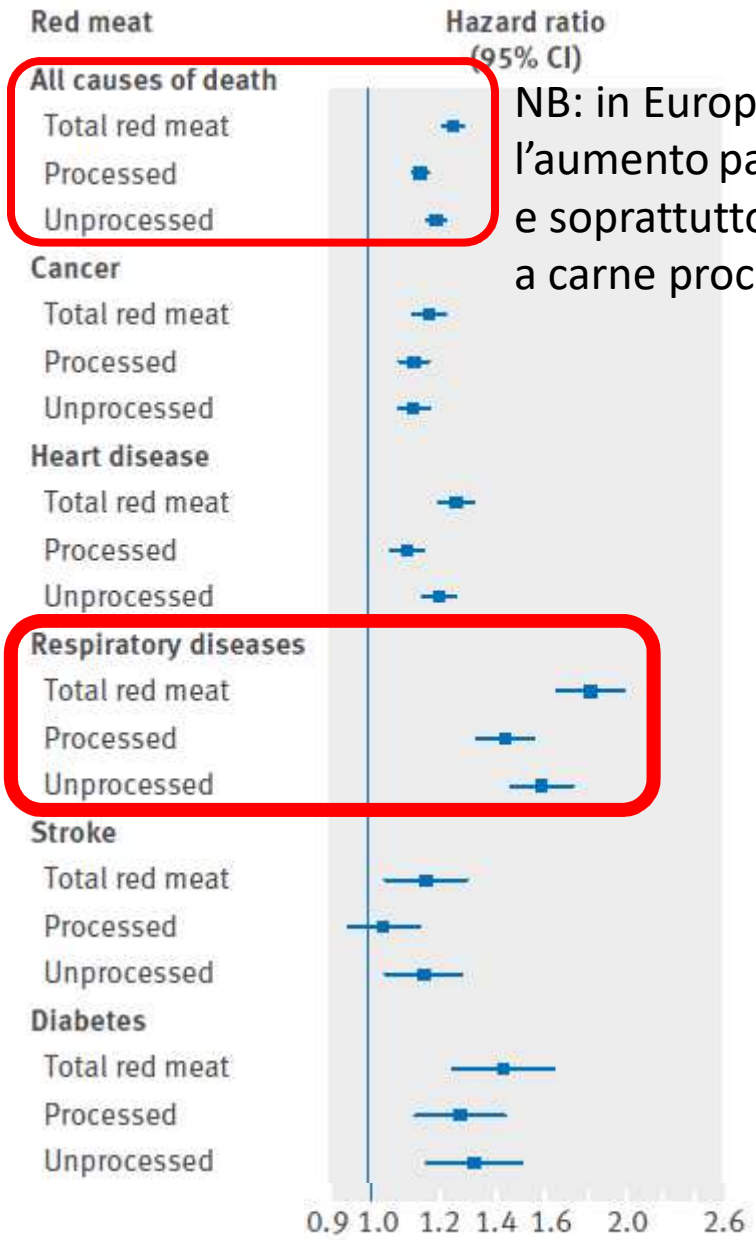
Intake of total meat, processed and unprocessed red meat (beef, lamb, and pork) and white meat (poultry

mortality. Heme iron and processed meat nitrate/nitrite were independently associated with increased risk of all cause and cause specific mortality. Mediation models estimated that the increased mortality associated with processed red meat was influenced by nitrate intake (37.0-72.0%) and to a lesser degree by heme iron (20.9-24.1%). When the total meat intake was constant, the highest fifth of white meat intake was associated with a 25% reduction in risk of all cause mortality compared with the lowest intake level. Almost all causes of death showed an inverse association with white meat intake.

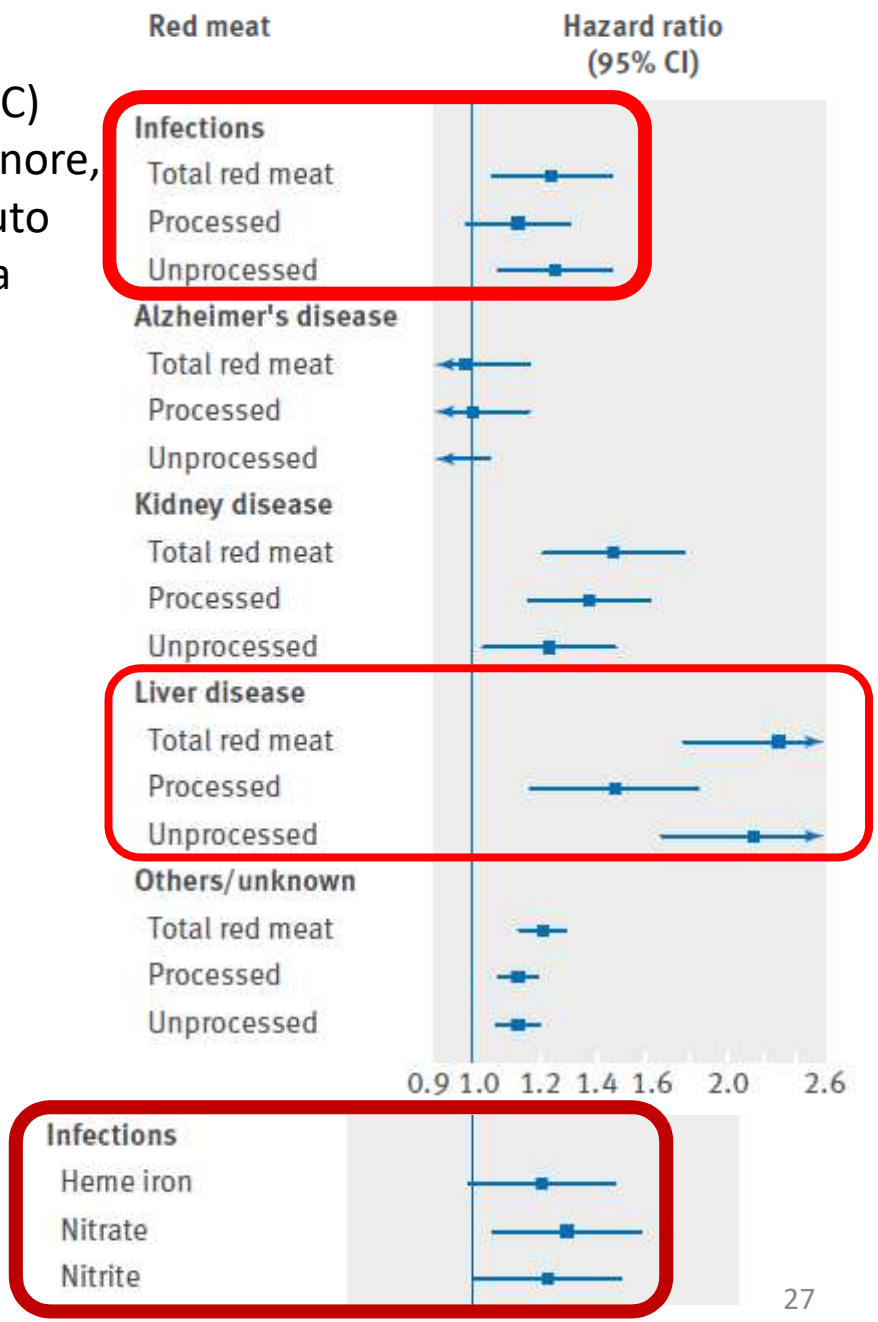
CONCLUSIONS

The results show increased risks of all cause mortality and death due to nine different causes associated with both processed and unprocessed red meat, accounted for, in part, by heme iron and nitrate/nitrite from processed meat. T reduced risks



NB: in Europa (EPIC) l'aumento pare minore, e soprattutto dovuto a carne processata



Anche l'attività fisica (non strenua!) **si associa a protezione dalla mo**

Reduced Disability and Mortality Among Aging Runners

A 21-Year Longitudinal Study

Eliza F. Chakravarty, MD, MS; Helen B. Hubert, PhD; Vijaya B. Lingala, PhD; James F. Fries, I

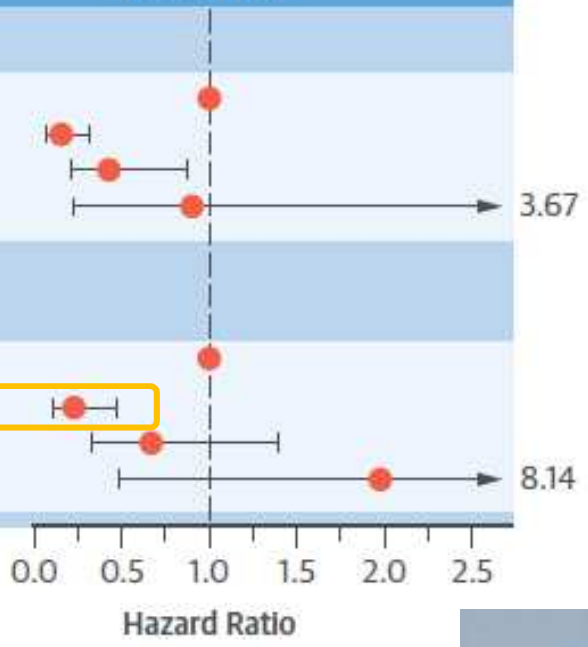
Mi proteggo anche da demenza, infezioni, ecc.

Table 4. Causes of Death Since Study Inception (1984)

Cause of Death	Total No. of Deaths	Runners Club Members		Community Controls		Ra… Controls/ Runners	*P* Value
		No. of Deaths	Rate[a]	No. of Deaths	Rate[a]		
Total	**225**	**81**	810	**144**	1999	2.5	<.001
Cardiovascular	72	29	290	43	597	2.1	.001
Coronary artery disease/MI	38	14	140	25	347	2.5	.003
Stroke	10	3	30	7	97	3.2	.04
Congestive heart failure	4	2	20	2	28	1.4	.38
Cancer	71	30	300	41	569	1.9	.004
Prostate[b]	7	4	40	3	42	1.0	.28
Lung	14	5	50	9	125	2.5	.051
Colon	10	4	40	6	83	2.1	.13
Breast[c]	4	1	10	3	42	4.2	.38
Hematologic	11	6	60	5	69	1.2	.41
Esophageal	3	1	10	2	28	2.8	.23
Pancreas	3	1	10	2	28	2.8	.23
Other	19	8	80	11	153	2.0	.09
Neurological	20	6	60	14	194	3.2	.007
Infections	16	1	10	15	208	20.8	<.001
Pneumonia	9	0	0	9	125	NA	NA
Other	39	11	110	28	389	3.5	<.001
Unknown	7	4	40	3	42	1.0	.47

CENTRAL ILLUSTRATION **Dose of Jogging and Long-Term Mortality**

DOSE OF JOGGING	NO. OF PARTICIPANTS	ALL-CAUSE MORTALITY DEATHS
Adjusted for age and sex		
Sedentary nonjogger (reference)	413	128
Light jogger	576	7
Moderate jogger	262	8
Strenuous jogger	40	2
Adjusted for age, sex, smoking, alcohol intake, education, and diabetes		
Sedentary nonjogger (reference)	394	120
Light jogger	570	7
Moderate jogger	252	8
Strenuous jogger	36	2



Schnohr, P. et al. J Am Coll Cardiol. 2015; 65(5):411-9.

Forest plot indicating all-cause mortality in light, moderate, and strenuous joggers compared with sedentary nonjoggers.

Ottima notizia! Va bene il nostro passo...!

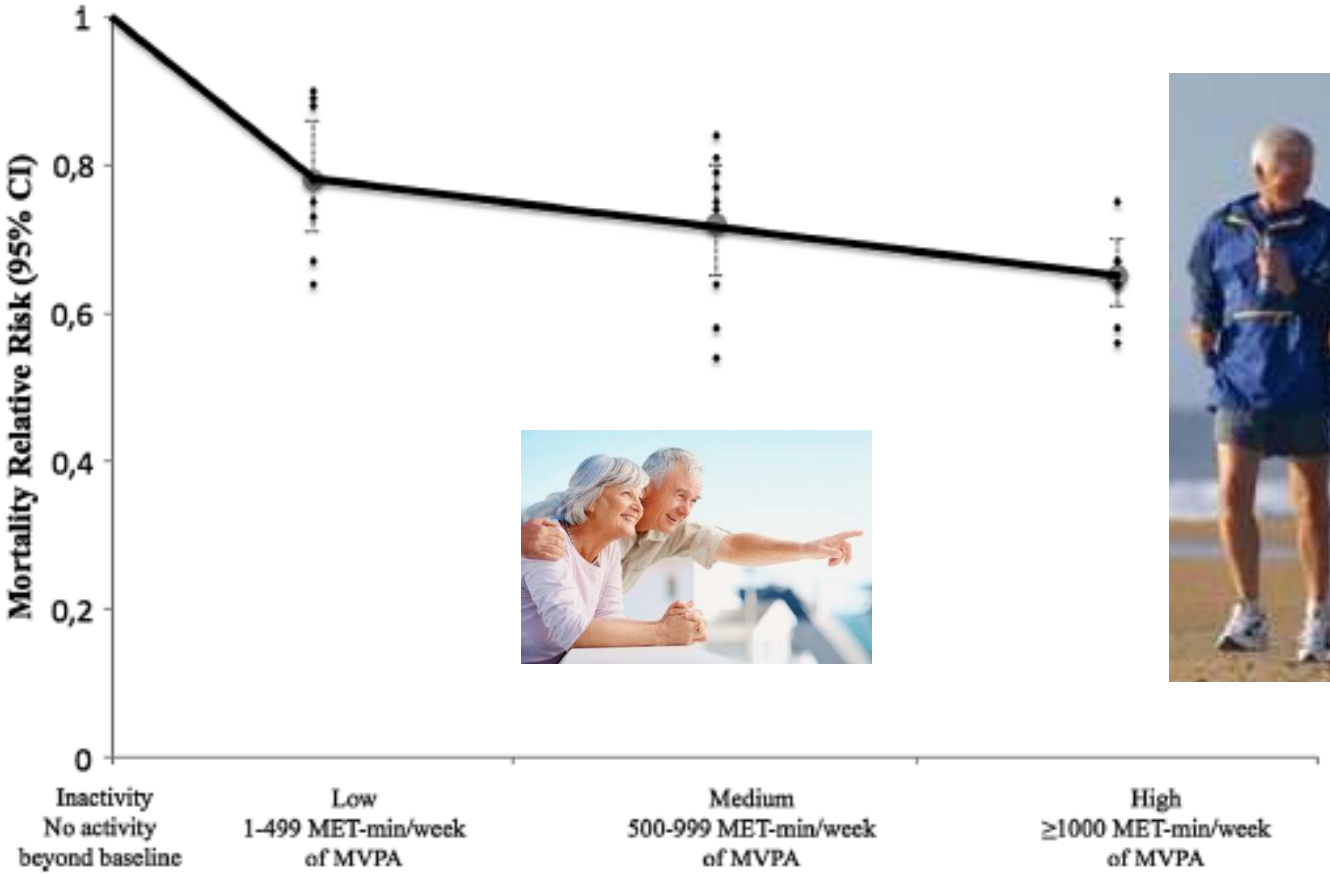


Figure 2 Relationship between dose of moderate-to-vigorous-intensity physical activity (MVPA) and mortality reduction. Scatter plots correspond to the different relative risks of studies for each dose of MVPA. The average relative risks were calculated from nine studies for the doses of physical activity (only 8 for the low dose) via Comprehensive Meta-Analysis Software (V.3.3.070—21 November 2014, Biostat, Englewood, New Jersey, USA). Bars illustrate 95% CIs. Mortality reduction was estimated by percentage (±95% CI) in the figure. MET, Metabolic Equivalent of Task.

Hupin D, *et al. Br J Sports Med* 2015;**0**:1–8.

Se una misura che fa discutere usa la forza pubblica per vietare l'accesso ai parchi, non per multare chi vi circola senza rispettare le distanze, fare almeno in modo regolare attività fisica a casa!

Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy

I-Min Lee, Eric J Shiroma, Felipe Lobelo, Pekka Puska, Steven N Blair, Peter T Katzmarzyk, for the Lancet Physical Activity Series Working Group*

Summary

Background Strong evidence shows that physical inactivity increases the risk of many adver… including major non-communicable diseases such as coronary heart disease, type 2 di… cancers, and shortens life expectancy. Because much of the world's population is … public health issue. We aimed to quantify the effect of physical inactivity … by estimating how much disease could be averted if inactive people… expectancy at the population level.

Methods For our analysis of burden of disea… associated with physical inactivity using conservativ… diseases, by country, to estimate how much disease … we used life-table analysis to estimate gains in life …

Finding …% (ranging from 3·2% in southeast Asia to 7·8% in the easte… ease from coronary heart disease, 7% (3·9–9·6) of type 2 diabetes, … % (5·7–13·8) of colon cancer. Inactivity causes 9% (range 5·1–12·5) of premat… illion of the 57 million deaths that occurred worldwide in 2008. If inactivity were not eli… instead by 10% or 25%, more than 533 000 and more than 1·3 million deaths, respectively, … every year. We estimated that elimination of physical inactivity would increase the life expectancy of … orld's population by 0·68 (range 0·41–0·95) years.

Interpretation Physical inactivity has a major health effect worldwide. Decrease in or removal of this unhealthy behaviour could improve health substantially.

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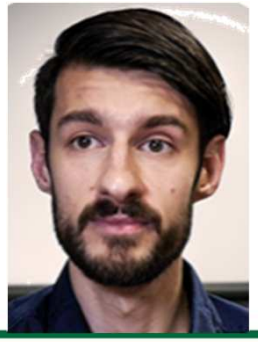
Inattività fisica in Italia spiega Il 14,6% della mortalità totale


The Lancet Commissions

Food in the Anthropocene: the EAT–*Lancet* Commission on healthy diets from sustainable food systems

Walter Willett, Johan Rockström, Brent Loken, Marco Springmann, Tim Lang, Sonja Vermeulen, Tara Garnett, David Tilman, Fabrice DeClerck, Amanda Wood, Malin Jonell, Michael Clark, Line J Gordon, Jessica Fanzo, Corinna Hawkes, Rami Zurayk, Juan A Rivera, Wim De Vries, Lindiwe Majele Sibanda, Ashkan Afshin, Abhishek Chaudhary, Mario Herrero, Rina Agustina, Francesco Branca, Anna Lartey, Shenggen Fan, Beatrice Crona, Elizabeth Fox, Victoria Bignet, Max Troell, Therese Lindahl, Sudhvir Singh, Sarah E Cornell, K Srinath Reddy, Sunita Narain, Sania Nishtar, Christopher J L Murray

Executive summary

Food systems have the potential to nurture human health and support environmental sustainability; however, they are currently threatening both. Providing a growing global population with healthy diets from sustainable food systems is an immediate challenge. Although global food production of calories has kept pace with population growth, more than 820 million people have insufficient food and many more consume low-quality diets that cause micronutrient deficiencies and contribute to a substantial rise in the incidence of diet-related obesity and diet-related non-communicable diseases, including coronary heart disease, stroke, and diabetes. Unhealthy diets pose a greater risk to morbidity and mortality than does unsafe sex, and alcohol, drug, and tobacco use combined. Because much of the world's population is than the reference diet intake, whereas overconsumption of unhealthy foods is increasing. Using several approaches, we found with a high level of certainty that global adoption of the reference dietary pattern would provide major health benefits, including a large reduction in total mortality.

The Commission integrates, with quantification of universal healthy diets, global scientific targets for sustainable food systems, and aims to provide scientific boundaries to reduce environmental degradation caused by food production at all scales. Scientific targets for the safe operating space of food systems were established for six key Earth system processes. Strong evidence indicates that food production is among the largest drivers of global environmental change by contributing to climate change, biodiversity loss, freshwater use, interference

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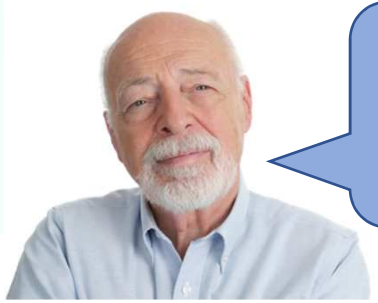
	Macronutrient intake (possible range), g/day	Caloric intake, kcal/day
Whole grains*		
Rice, wheat, corn, and other†	232 (total gains 0–60% of energy)	811
Tubers or starchy vegetables		
Potatoes and cassava	50 (0–100)	39
Vegetables		
All vegetables	300 (200–600)	-
Dark green vegetables	100	23
Red and orange vegetables	100	30
Other vegetables	100	25
Fruits		
All fruit	200 (100–300)	126
Dairy foods		
Whole milk or derivative equivalents (eg, cheese)	250 (0–500)	153
Protein sources‡		
Beef and lamb	7 (0–14)	15
Pork	7 (0–14)	15
Chicken and other poultry	29 (0–58)	62
Eggs	13 (0–25)	19
Fish§	28 (0–100)	40
Legumes		
Dry beans, lentils, and peas*	50 (0–100)	172
Soy foods	25 (0–50)	112
Peanuts	25 (0–75)	142
Tree nuts	25	149
Added fats		
Palm oil	6·8 (0–6·8)	60
Unsaturated oils¶	40 (20–80)	354
Dairy fats (included in milk)	0	0
Lard or tallow‖	5 (0–5)	36
Added sugars		
All sweeteners	31 (0–31)	120

For an individual, an optimal energy intake to maintain a healthy weight will depend on body size and level of physical activity. Processing of foods such as partial hydrogenation of oils, refining of grains, and addition of salt and preservatives can substantially affect health but is not addressed in this table. *Wheat, rice, dry beans, and lentils are dry, raw. †Mix and amount of grains can vary to maintain isocaloric intake. ‡Beef and lamb are exchangeable with pork and vice versa. Chicken and other poultry is exchangeable with eggs, fish, or plant protein sources. Legumes, peanuts, tree nuts, seeds, and soy are interchangeable. §Seafood consist of fish and shellfish (eg, mussels and shrimps) and originate from both capture and from farming. Although seafood is a highly diverse group that contains both animals and plants, the focus of this report is solely on animals. ¶Unsaturated oils are 20% each of olive, soybean, rapeseed, sunflower, and peanut oil. ‖Some lard or tallow are optional in instances when pigs or cattle are consumed.

Table 1: **Healthy reference diet, with possible ranges, for an intake of 2500 kcal/day**



Ma è quello che mi protegge anche dal **Coronavirus**!!


Noi
cominciamo
questa
sera!

Considerazioni conclusive

Un motivo di ansia e frustrazione nelle persone deriva dal senso di impotenza. Oltre alla doverosa adesione al dista… ziamento sociale richi… sanitari… altro…

Riallacciamoci dunque all'introduzione e alle misure chiave da attuare:

Invec… …vo Coronavirus, come con altri germi patogeni, chiunque può mettere in atto azioni chiave per:

- ridurre la carica infettante, così che le infezioni, spesso inevitabili, non si trasformino in malattie; abbiamo anche segnalato una misura aggiuntiva semplice, finora trascurata (quali rubinetti, come chiuderli)
- potenziare le nostre difese con stili di vita salutari, spesso più potenti dei farmaci nel prevenire le malattie e nel superarle con successo, anche in tarda età; per chi già non le pratica, è il momento di iniziare!
- se si manifestano malattie infettive respiratorie, lasciar lavorare le difese di prima linea che l'evoluzione ci ha consegnato, a partire dalla febbre (salvo diverse decisioni di competenza dei clinici)