

# Dalle Fake News alla Scienza della Nutrizione

ELISABETTA BERNARDI

# ALIMENTAZIONE SALUTE E INFORMAZIONE

- Il legame tra la nostra salute e ciò che mangiamo è ben consolidato, ma siamo bombardati da notizie contrastanti sul cibo, e la velocità con cui questi messaggi cambiano ci lascia incerti su cosa credere e su quali siano i cambiamenti necessari alla nostra dieta.
- La scienza del cibo e della nutrizione è in continua evoluzione, influenzata dalle preferenze dei consumatori, dai progressi tecnologici e dalla crescente consapevolezza del legame tra alimentazione, salute e sostenibilità.
- Le tendenze chiave previste per il futuro includono la nutrizione funzionale e personalizzata, l'alimentazione sostenibile ed etica, e gli alimenti che migliorano il sistema immunitario e la salute mentale.

# CAPIRE UNA NOTIZIA SCIENTIFICA

- A differenza di ciò che si crede comunemente, la scienza non è una raccolta di fatti. La scienza è un processo di convalida e confutazione della conoscenza.
  - Esistono molti tipi di studi scientifici che contribuiscono, con vari gradi di evidenza, all'attuale livello di conoscenza.
  - Gli scienziati sono abituati ad affrontare i diversi tipi di incertezza e i vari gradi di evidenza nei singoli studi.
  - Nel processo di pubblicazione scientifica una revisione tra pari valuta se lo studio è stato fatto e riportato correttamente.
- I mezzi di comunicazione sono essenziali per riferire nuovi risultati scientifici al grande pubblico. Tuttavia, i media funzionano in condizioni diverse dalla scienza. I media operano in un ambiente di rapida svolta, costantemente alla ricerca di notizie da segnalare che siano degne di nota e riassumendole per il lettore generale.
  - Un quotidiano deve produrre molti titoli ogni giorno e c'è poco tempo per parlare con diversi scienziati per ottenere una visione equilibrata.
  - E i titoli seguono una logica tutta loro. I titoli spesso semplificano le cose in un unico messaggio chiaro, evidenziano un singolo aspetto e devono presentare il messaggio come sorprendente o nuovo.

# Qual è la verità dietro questo titolo?

AlimentiPIÙ

Focus

SCIENZA

AMBIENTE

CULTURA

COMPORTAMENTO

TECNOLOGIA

...

CODICI SCONTO

ABBONATI  
ALLA RIVISTA

7 GIUGNO 2024 16:15

## I bambini che mangiano cibi ultra-processati sono più a rischio diabete: i dati di un nuovo studio

Uno studio spagnolo ha osservato che già dai primi anni di vita il consumo di cibi ultra-processati nei bambini può aumentare il rischio di sviluppare da adulti diabete, ictus e infarti. Lo studio ha dimostrato anche che il consumo di cibi ultra-processati è correlato al contesto sociale in cui vivono i minori.



il fatto alimentare

entare Etichette & Prodotti Pubblicità & Bufale **Nutrizione** Pianeta

## Salute I cibi ultraprocesati sono stati associati a 32 effetti pericolosi per la salute

L'elevato consumo di cibi derivati da processi di trasformazione industriale per essere più appetibili, è associato all'insorgere di gravi patologie e mortalità precoce.



ALESSANDRO GENZONE  
CHIRURGO LAMPROSCOPICO  
CHIRURGO DELLA GRAVE OBESITÀ



LA NOSTRA SALUTE MINACCIATA DAGLI ALIMENTI ULTRA PROCESSATI

Di Dott. Genzone. Inserito il 16 Dicembre 2020 in Blog

MENU | Q CERCA la Repubblica | ABBONATI | QUOTIDIANO | ACCEDI

Oncoline  
IL CANALE DI ONCOLOGIA

in collaborazione con Aiom

VAI ALLA HOMEPAGE DI SALUTE

f t in e p

## Il cibo ultra-elaborato può aumentare il rischio di cancro

di TINA SIMONIELLO

Una dieta ricca di piatti pronti, succhi di frutta o integratori si assocerebbe a un aumento del rischio di cancro del 12%. Sul BMJ un nuovo focus sulla relazione fra alimentazione e tumori


## Più cibo ultra-processato nella dieta, più è alto il rischio di morte, secondo lo studio italiano Moli-Sani

Agnese Codignola | 4 Gennaio 2021 | Nutrizione | Commenti



Esempi di prodotti tipici ultra-trasformati sono: bevande gassate zuccherate; snack confezionati dolci o salati; gelati, cioccolato, caramelle (dolciumi); pane e panini confezionati prodotti in serie; margarine e formaggi spalmabili; biscotti, pasticcini, torte e miscele di torte; barrette e cereali per la colazione; bevande energetiche; bevande al latte, yogurt alla frutta e succhi di frutta; bevande al cacao; estratti di carne e di pollo e salse; alimenti per lattanti, latti integrativi, altri prodotti per lattanti; prodotti «dimagranti», quali i sucedanei dei pasti; e molti prodotti pronti per riscaldare tipo pizza; pepite e bastoncini di pollame e pesce, salsicce, hamburger, hot dog e altri prodotti a base di carne ricostituiti, zuppe, liofilizzati e dessert "istantanei" in polvere e confezionati

**THE FOODS THAT PUT YOU AT RISK**



■ Fizzy drinks	■ Energy bars	■ Pre-prepared pies
■ Chocolate	■ Energy drinks	■ Chicken nuggets
■ Sweets	■ Flavoured milk	■ Reconstituted meat products - including most sausages
■ Mass-produced bread	■ Ready meals with ready-made sauces	■ Powdered soup
■ Margarine	■ Powdered slimming products	
■ Biscuits		
■ Breakfast cereal		

SOURCE: British Medical Journal

OPEN ACCESS

Check for updates

## Association of ultra-processed food consumption with all cause and cause specific mortality: population based cohort study

Zhe Fang,<sup>1</sup> Sinara Laurini Rossato,<sup>2,3</sup> Dong Hang,<sup>3,4</sup> Neha Khandpur,<sup>3,5,6</sup> Kai Wang,<sup>1</sup> Chun-Han Lo,<sup>7</sup> Walter C Willett,<sup>1,3,8</sup> Edward L Giovannucci,<sup>1,3</sup> Mingyang Song<sup>1,3,9</sup>

For numbered affiliations see end of the article

Correspondence to: M Song [msong@hsph.harvard.edu](mailto:msong@hsph.harvard.edu) (or @MingyangSong3 on X/Twitter; ORCID 0000-0002-1324-0316)

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

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### ABSTRACT

#### OBJECTIVE

To examine the association of ultra-processed food consumption with all cause mortality and cause specific mortality.

#### DESIGN

Population based cohort study.

#### SETTING

Female registered nurses from 11 US states in the Nurses' Health Study (1984-2018) and male health professionals from all 50 US states in the Health Professionals Follow-up Study (1986-2018).

#### PARTICIPANTS

74 563 women and 39 501 men with no history of cancer, cardiovascular diseases, or diabetes at baseline.

#### MAIN OUTCOME MEASURES

Multivariable Cox proportional hazard models were used to estimate hazard ratios and 95% confidence intervals for the association of ultra-processed food intake measured by semiquantitative food frequency questionnaire every four years with all cause mortality and cause specific mortality due to cancer, cardiovascular, and other causes (including respiratory and neurodegenerative causes).

#### RESULTS

30 188 deaths of women and 18 005 deaths of men were documented during a median of 34 and 31 years of follow-up, respectively. Compared with those in the lowest quarter of ultra-processed food consumption, participants in the highest quarter had a 4% higher all cause mortality (hazard ratio 1.04, 95% confidence interval 1.01 to 1.07) and 9% higher mortality from causes other than cancer or cardiovascular diseases (1.09, 1.05 to 1.13). The all cause mortality rate among participants in the lowest and highest quarter was 1472 and 1536 per 100 000 person years,

respectively. No associations were found for cancer or cardiovascular mortality. Meat/poultry/seafood based ready-to-eat products (for example, processed meat) consistently showed strong associations with mortality outcomes (hazard ratios ranged from 1.06 to 1.43). Sugar sweetened and artificially sweetened beverages (1.09, 1.07 to 1.12), dairy based desserts (1.07, 1.04 to 1.10), and ultra-processed breakfast food (1.04, 1.02 to 1.07) were also associated with higher all cause mortality. No consistent associations between ultra-processed foods and mortality were observed within each quarter of dietary quality assessed by the Alternative Healthy Eating Index-2010 score, whereas better dietary quality showed an inverse association with mortality within each quarter of ultra-processed foods.

#### CONCLUSIONS

This study found that a higher intake of ultra-processed foods was associated with slightly higher all cause mortality, driven by causes other than cancer and cardiovascular diseases. The associations varied across subgroups of ultra-processed foods, with meat/poultry/seafood based ready-to-eat products showing particularly strong associations with mortality.

#### Introduction

Ultra-processed foods are ready-to-eat/heat industrial formulations made mostly or entirely from substances derived from foods, including flavors, colors, texturizers, and other additives, with little if any intact whole food.<sup>1</sup> Ultra-processed foods, which are typically of low nutritional quality and high energy density, have been dominating the food supply of high income countries, and their consumption is markedly increasing in middle income countries.<sup>2</sup> Ultra-processed food consumption accounts for 57% of daily energy intake among adults and 67% among youths in the US according to the National Health and Nutrition Examination Survey (NHANES).<sup>3,4</sup>

Ultra-processed foods usually disproportionately contribute added sugars, sodium, saturated fats and trans fats, and refined carbohydrates to the diet together with low fiber.<sup>5,6</sup> As well as having low nutritional quality, ultra-processed foods may contain harmful substances, such as additives and contaminants formed during the processing.<sup>7-10</sup> Growing evidence from large prospective cohorts show that ultra-processed food is associated with adverse health outcomes, such as overweight/obesity, cardiovascular diseases, type 2 diabetes, and colorectal cancer.<sup>11-14</sup> A systematic review showed that high ultra-processed food consumption was associated with increased risk of all cause mortality, cardiovascular diseases, metabolic syndrome, depression, and postmenopausal breast

#### WHAT IS ALREADY KNOWN ON THIS TOPIC

Ultra-processed foods have been suggested to have adverse health effects. Evidence is limited on the influence of ultra-processed food consumption on mortality outcomes in large cohorts with long term follow-up and repeated dietary assessment.

#### WHAT THIS STUDY ADDS

A higher intake of ultra-processed foods was associated with slightly higher all cause mortality, driven by causes other than cancer and cardiovascular diseases. The positive associations were mainly driven by meat/poultry/seafood based ready-to-eat products, sugar and artificially sweetened beverages, dairy based desserts, and ultra-processed breakfast foods.

Dietary quality was observed to have a more predominant influence on mortality outcomes than ultra-processed food consumption.

# AlimentiPIÙ



edizioni Dedalo

scienzaFACILE

Elisabetta Bernardi  
**Mangiare  
secondo  
la scienza**

La salute nel piatto

Prefazione di Alberto Angela

PREVENZIONE DIETA MEDITERRANEA BENESSERE

# HOW STRONG IS THE SCIENTIFIC EVIDENCE?



## SYSTEMATIC REVIEWS AND META-ANALYSES

gather & summarise all relevant studies on a particular topic - lower chance of bias



systematic reviews



meta-analyses



this is the strongest available evidence

## RANDOMISED CONTROLLED TRIALS (RCT)

identify population to study e.g. women over 50



split into two random groups and measure effects



one group is not exposed (control)

one group is exposed to treatment (intervention)



these studies can prove causation but keep in mind not to generalise too readily

## OBSERVATIONAL RESEARCH

scientists use these studies to identify correlations and develop hypotheses for further testing



don't forget that correlation does not mean causation, and remember to communicate absolute risk

## ANIMAL & CELL STUDIES

effects in humans and animals are not always the same  
isolated cells in the laboratory behave differently than cells in the body



always keep in mind the limitations of cell and animal research

## EXPERT OPINIONS & ANECDOTES

a single person's experience or opinion does not provide an objective picture



anecdotes



this evidence is too weak to draw conclusions

COMMUNICATION TIPS

Quine  
EMPOWERING MINDS

Alimenti  
Produzione & Igiene

# Quali sono le fonti affidabili di informazioni sull'alimentazione?

Ci sono numerose fonti affidabili di informazioni sulle notizie alimentari e nutrizionali nei tradizionali giornali scientifici e sui social media. E queste sono le mie...

<https://pubmed.ncbi.nlm.nih.gov/>

<https://www.eufic.org/en/>

<https://www.foodunfolded.com/>

<https://www.healthline.com/nutrition>

<http://search.eurekalert.org/e3/query.html?qt=nutrition&x=-241&y=-138>

<https://www.nutrition.org.uk/>

<https://sinu.it/> - <https://www.crea.gov.it/web/alimenti-e-nutrizione>

<https://smartfood.ieo.it/>

<https://www.webmd.com/diet/default.htm>

<https://theconversation.com/uk>



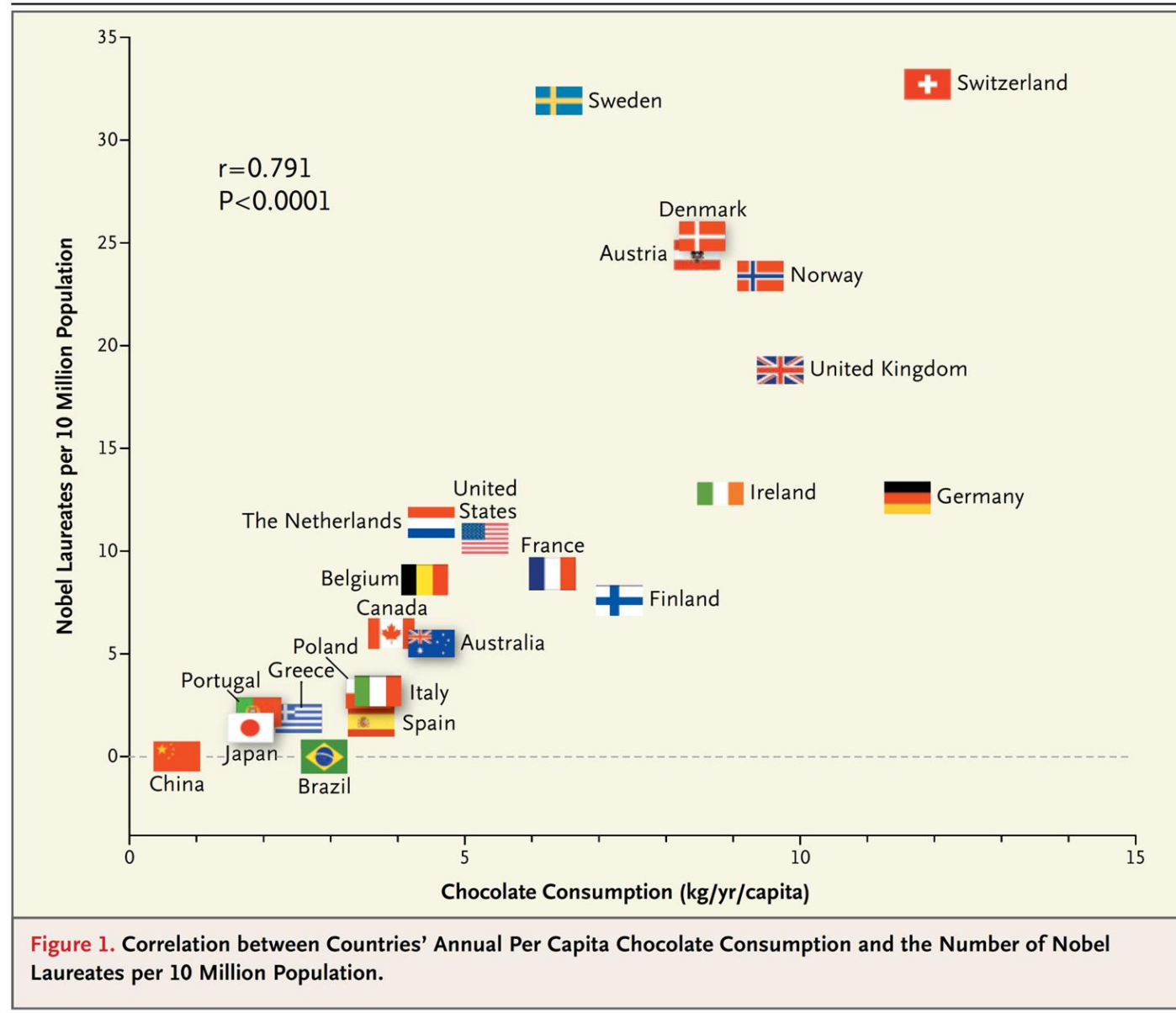
The NEW ENGLAND JOURNAL of MEDICINE

OCCASIONAL NOTES

### Chocolate Consumption, Cognitive Function, and Nobel Laureates

Franz H. Messerli, M.D.

N ENGL J MED 367;16 NEJM.ORG OCTOBER 18, 2012



# Le diete dei “senza”? Un po’ senza senso

AlimentiPIÙ

## Un grande classico... la dieta senza glutine

RESEARCH



OPEN ACCESS

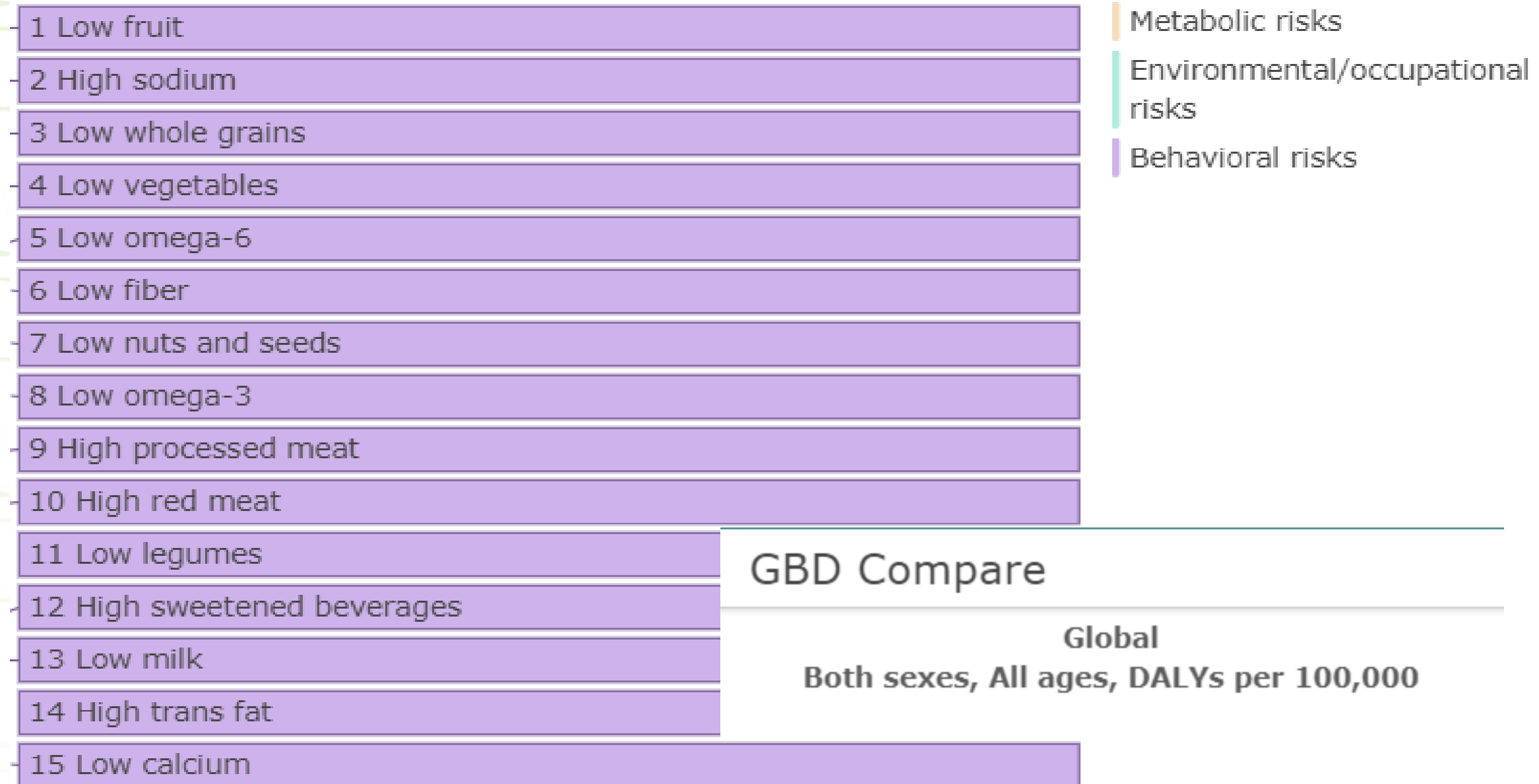
### Long term gluten consumption in adults without celiac disease and risk of coronary heart disease: prospective cohort study

Benjamin Lebwohl,<sup>1,2</sup> Yin Cao,<sup>3,4,5</sup> Geng Zong,<sup>5</sup> Frank B Hu,<sup>5,6</sup> Peter H R Green,<sup>1</sup> Alfred I Neugut,<sup>1,2</sup> Eric B Rimm,<sup>5,6,7</sup> Laura Sampson,<sup>5</sup> Lauren W Dougherty,<sup>5</sup> Edward Giovannucci,<sup>5,6,7</sup> Walter C Willett,<sup>5,6,7</sup> Qi Sun,<sup>5,6</sup> Andrew T Chan<sup>3,4,6</sup>



Alimenti

## 2021 rank



# HOW TO MEET THE DAILY DAILY

HEALTH FOR HEALTH, WEIGHT MANAGEMENT



DISTURB FIBER DOES HEALTH WEIGHT MAJAGEMENT DOSTUBLE FIBE OR LEMUTS



SOGUBLE HEALTH



SOEUBLE FIBE

TOPES

FOR DELGUBES FOR LEMUTS



SOPSUBLE FIBER



SOPSILE FIBER



INVOLE LEMULES



SOFUBLE FIBER



WHOBLE GRAINS OF BLOOD CONTROL



FIBER FIBER



WHOLE GRAINS BLOOD NAGEMENT



TYPES OF FIBER



TYPES OF FIBER



WHOLE GRAINS & WHOLE GRAINS



VEGETGRAINS WITH FOOD



VEGETABLES & WHOLE GRAINS



VEGETABLES & DAILY FOOD

# FIBER

## 25 GRAMTS OF DAILY

### 25 FIBER



# 25 GRAMS WITH FOOD



WEIGHT MANAGEMENT BLODI MANGEENT



## INSOUBLE

FROM WHOLE GRAINS FOITH FOOD WITH



## INSOBLE

WITH FOOD



## FLAN



VEGIUBLE FRIBER

# OMEGA-HEALTH

Cardiovascular For Health

Cardiovascular for Health

Cardiovascular Health

Healthy Daily Omega-3

DAILY NEEDS

EPA & DHA

# Importance of EPA & Daily Reqs

IMPORTANCE  
**EPA**  
Cardiovascular for Health



Cardiovascular for Health



Cardiovascular for Health

## FOOD INDUSTRY ENRICHMENT



Cardiovascular Health

IMPORTANCE  
**EPA**  
for health



Brain health



Brain function

7 MET  
**DHA**  
Daily needs



Brain Health  
Brain Function



Brain Function

HOW MEET  
**DHA**  
Daily mg daily needs



Fetal development



## FOOD INDUSTRY ENRICHMENT



Animal Development

How to meet 250 mg reqd



Fetal function



AGE



Enrichment

# FOODS HEALTH

daily needs

EPA

Algae

Protein Omega-3

# HEALTH LEGUBES



HEALTH BEALIFTS OF LEAGES FOR HEALTH



BY BEANET DO LEAGUES



DO DITED BELEGAN BODINE LEGUBAIDES

# HEALTH BENEFITS OF LEGUMES



OF LEGUBES ALTH



HEART HEALTH

HOOD FIBER INDUSTRY

How the ~~grass~~ increases increase legume constutions



150 gervings fresh & dried per serving



HEART HEALTH fres 4 health



HOW TO MEET 150g FRESH 150g dred per serving



HEALT BEAGTH OF SERVING



HOW TO MEET 150g FRESH 50g DRIED per SERVING

How the food impreated legatee consisties



ERODIENS CONTROL

FOOD BUSTEY SOLUTIONS



FOOD... GOE legume prestions

# HEALT LEGUES



HEALT BEALFT OF LEAGUES FOR HEADIRES



LEMUMUES



1566666 FIEBRL 176 BELEGNOTTED

## HOW TO MET WEEKLY SOLUTIONS



LEGBUE PRODUCTS



LEAGLE PEISHS



FOOD INDUSTRY itclorokts in baked goods

**Grazie**

ELISABETTA BERNARDI

[ebnutrizione@gmail.com](mailto:ebnutrizione@gmail.com)