



Impacto de la adquisición de hábitos de vida saludable en los pacientes crónicos

*Miguel A. Martínez-González, MD, PhD, MPH
Jerez, 27 Mayo 2022*

La vida es simple - 7

Dieta Mediterránea y aceite de oliva

Alcohol

Peso corporal: sobrepeso y obesidad

Sinergias e índices combinados

La vida es simple - 7

Dieta Mediterránea y aceite de oliva

Alcohol

Peso corporal: sobrepeso y obesidad

Sinergias e índices combinados

Defining and Setting National Goals for Cardiovascular Health Promotion and Disease Reduction

The American Heart Association's Strategic Impact Goal Through 2020 and Beyond

Donald M. Lloyd-Jones, MD, ScM, FAHA, Chair;
Yuling Hong, MD, MSc, PhD, FAHA*; Darwin Labarthe, MD, MPH, PhD, FAHA*;
Dariush Mozaffarian, MD, DrPH, FAHA; Lawrence J. Appel, MD, MPH, FAHA;
Linda Van Horn, PhD, RD, FAHA; Kurt Greenlund, PhD*; Stephen Daniels, MD, PhD, FAHA;
Graham Nichol, MD, MPH, FAHA; Gordon F. Tomaselli, MD, PhD, FAHA; Donna K. Arnett, PhD, FAHA;
Gregg C. Fonarow, MD, FAHA; P. Michael Ho, MD, PhD; Michael S. Lauer, MD, FAHA;
Frederick A. Masoudi, MD, MPH; Rose Marie Robertson, MD, FAHA; Véronique Roger, MD, FAHA;
Lee H. Schwamm, MD, FAHA; Paul Sorlie, PhD; Clyde W. Yancy, MD, FAHA;
Wayne D. Rosamond, PhD, FAHA; on behalf of the American Heart Association Strategic Planning Task Force and Statistics Committee

Circulation. 2010;121:586-613

IDEAL HEALTH BEHAVIORS

- nonsmoking
- body mass index <25 kg/m²
- physical activity at goal levels
- pursuit of a diet consistent with current guideline recommendations

IDEAL HEALTH FACTORS

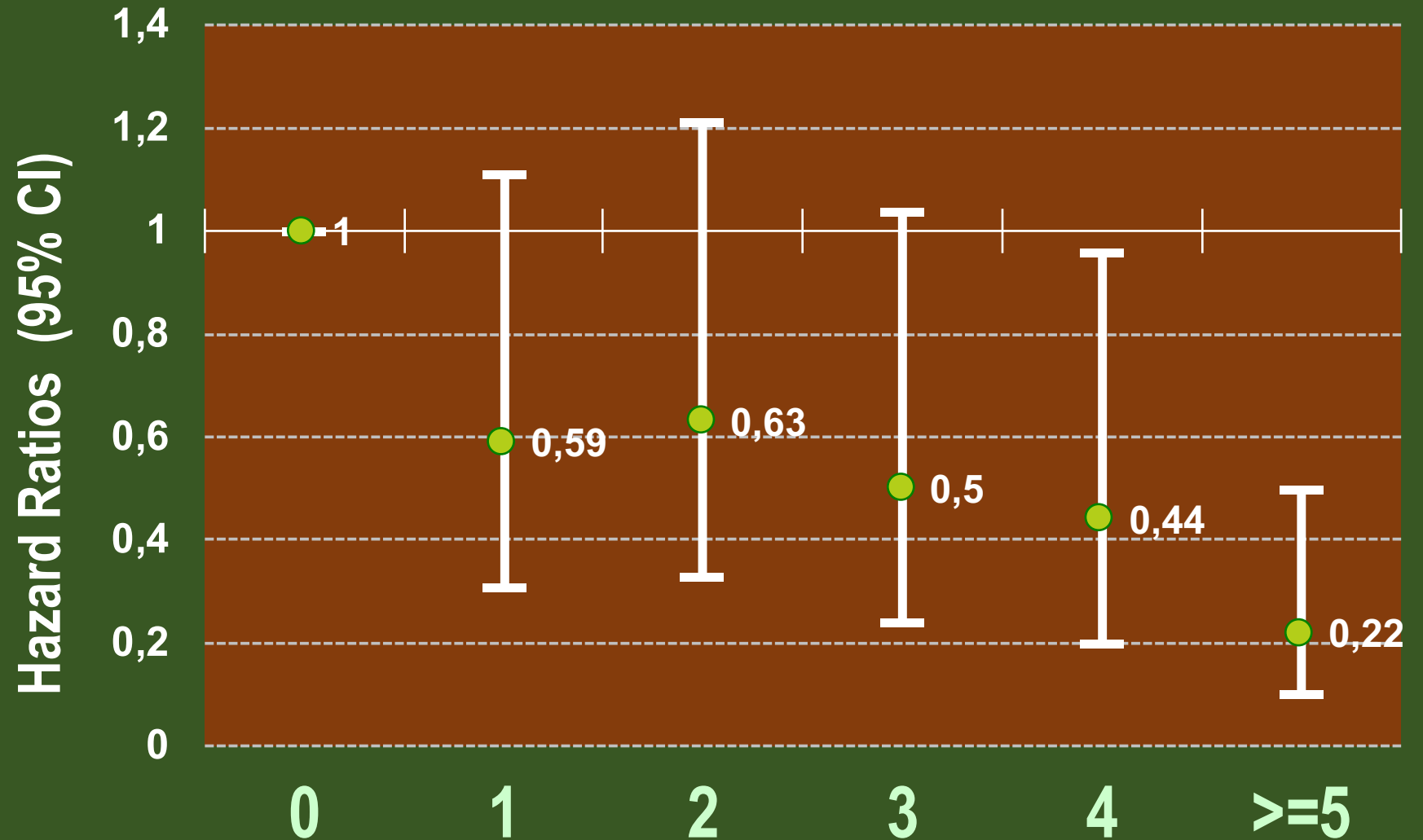
- untreated total cholesterol <200 mg/dL
- untreated blood pressure <120/<80 mm Hg
- fasting blood glucose <100 mg/dL

LS7 y Mortalidad total, NHANES, 5.8 años seguim, 532 muertes

Ideal CV

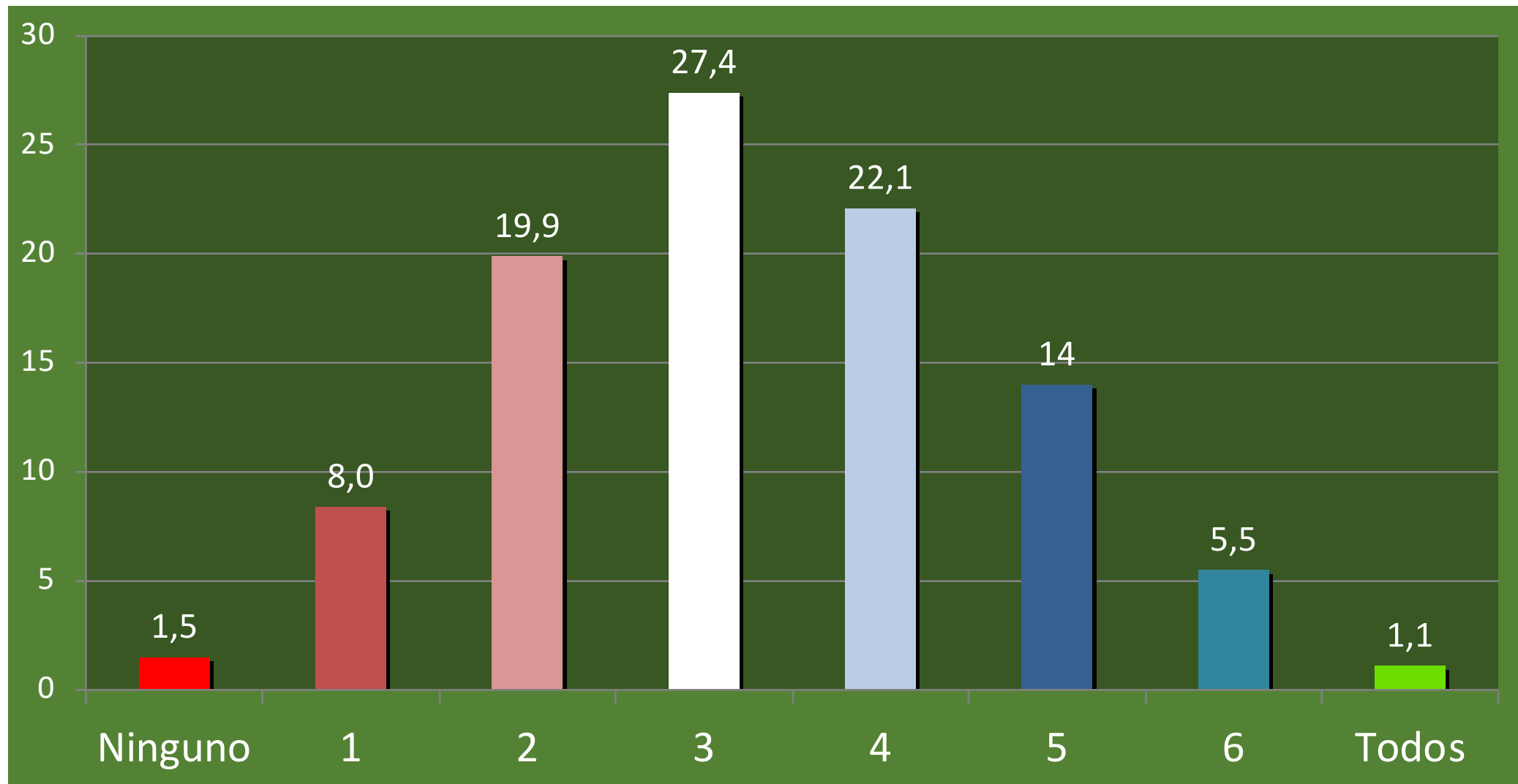
Health

1. Never smoking
2. BMI < 25 kg/m²
3. Phys. Act >149 min/wk
4. Healthy Eating Ind >3/5
5. Total chol. <200 mg/dl
6. BP < 120/<80
7. Fasting glucose < 100



Ford et al, Circulation 2012;125:987

% LS7 en muestra población general EE.UU.



Ford et al, Circulation 2012;125:987

Life's Simple 7 at Midlife and Risk of Recurrent Cardiovascular Disease and Mortality after Stroke: The ARIC study

Yvonne Commodore-Mensah, PhD, MHS, RN,^{1,2,a} Yejin Mok, PhD, MPH,^{2,b}
Rebecca F. Gottesman, MD, PhD,^{1,3,c} Anna Kucharska-Newton, PhD, MPH,^{4,d}
Kunihiro Matsushita, MD, PhD,^{2,e} Priya Palta, PhD, MHS,^{5,f}
Wayne D Rosamond, PhD,^{4,g} Fred Stephen Sarfo, MD, PhD,^{6,h}
Josef Coresh, MD, PhD,^{2,i} and Silvia Koton, PhD, MOccH, RN^{2,7,j}

J Stroke Cerebrovasc Dis. 2022 Jul;31:106486.

American Heart Association's Life's Simple 7: Lifestyle Recommendations, Polygenic Risk, and Lifetime Risk of Coronary Heart Disease

Natalie R. Hasbani, MPH , Symen Ligthart, MD, PhD, Michael R. Brown, MS , Adam S. Heath, MS , Allison Bebo, MPH, Kellan E. Ashley, MD, Eric Boerwinkle, PhD, Alanna C. Morrison, PhD , Aaron R. Folsom, MD , David Aguilar, MD , and Paul S. de Vries, PhD 

Circulation. 2022 Mar 15;145:808-18.

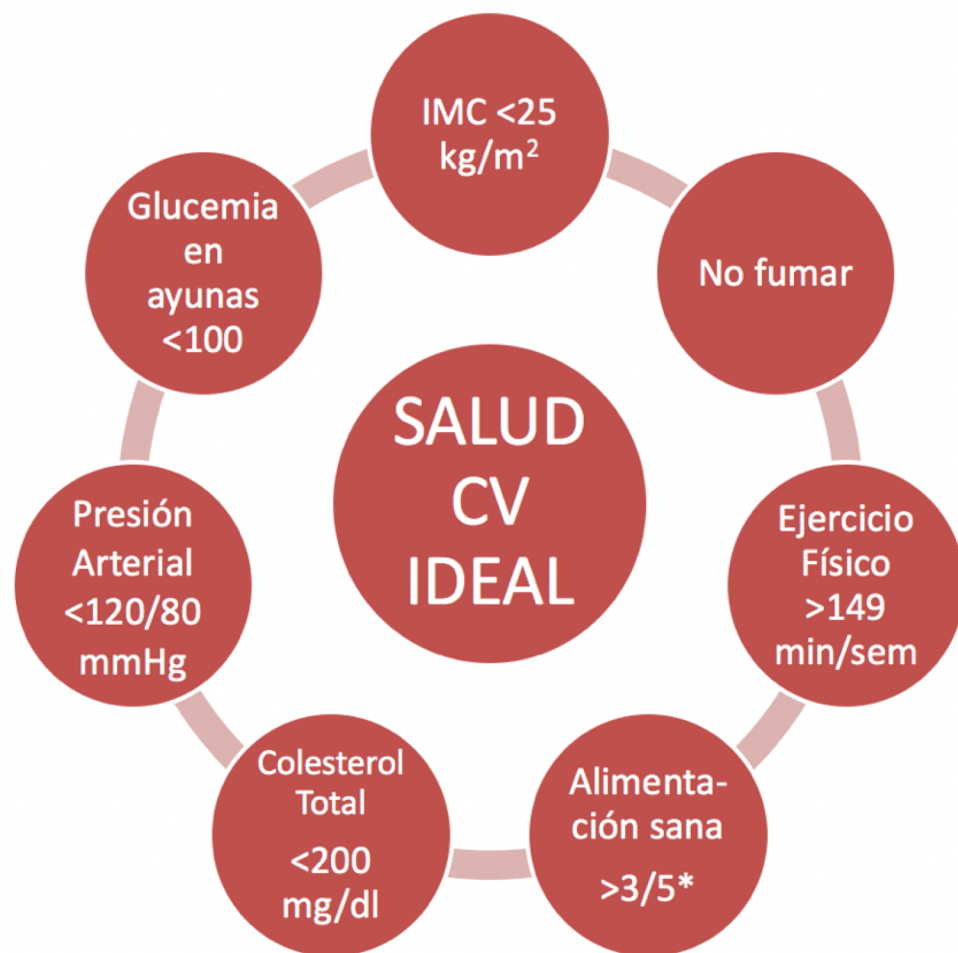
- ARIC: cohort of 13,508 adults from four US communities, 45-64 years old at baseline (1987-1989). Cardiovascular hospitalizations and mortality were ascertained in follow-up through December 31st, 2017
- Good and excellent midlife cardiovascular health are associated with **lower risks of incident stroke and CVD after stroke**. Clinicians should stress the importance of a healthy lifestyle for primary and secondary CVD prevention.
- Ideal adherence to LS7 recommendations was associated with **lower lifetime risk of CHD** for all individuals, especially in those with high genetic susceptibility.
- In Black participants, adherence to LS7 guidelines contributed to lifetime risk of CHD **more so than current polygenic risk scores**

Query	Results
Search: life's simple 7 OR LS7 Sort by: Most Recent	699

Impacto de *Life's Simple 7* en la incidencia de eventos cardiovasculares mayores en adultos españoles con alto riesgo de la cohorte del estudio PREDIMED

Javier Díez-Espino^{a,b,c,*}, Pilar Buil-Cosiales^{a,b,c}, Nancy Babio^{b,d}, Estefanía Toledo^{b,c}, Dolores Corella^{b,e}, Emilio Ros^f, Montserrat Fitó^{b,g}, Enrique Gómez-Gracia^h, Ramón Estruch^{b,i}, Miquel Fiol^{b,j}, José Lapetra^{b,k}, Angel Alonso-Gómez^{b,l,k}, Lluís Serra-Majem^{b,m,n}, Xavier Pinto^{b,o}, José V. Sorlí^{b,e}, Miguel A. Muñoz^{b,p}, Josep Basora^{b,d} y Miguel Á. Martínez-González^{b,c,q}

Rev Esp Cardiol. 2020;73:205-211



Myocardial Infarction– Heart Attack
 Cerebrovascular disease– Stroke
 Cardiovascular deaths

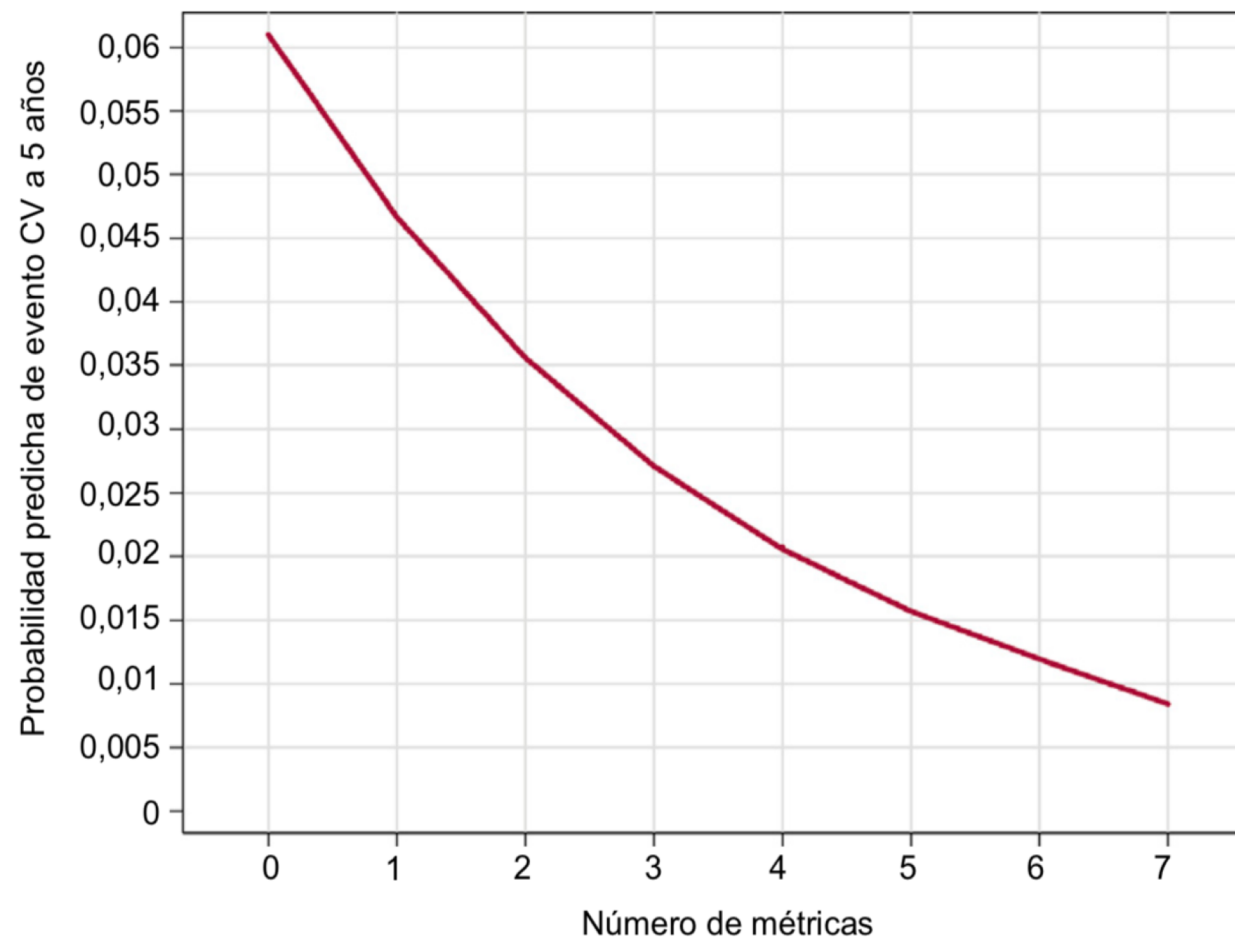
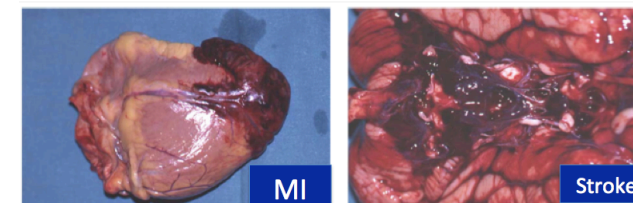


Figura 2. Probabilidad predicha de padecer un evento cardiovascular (CV) tras una mediana de 4,8 años de seguimiento, según el número de métricas.

Impact of Life's Simple 7 on the incidence of major cardiovascular events in high-risk Spanish adults in the PREDIMED study cohort



Javier Díez-Espino,^{a,b,c,*} Pilar Buil-Cosiales,^{a,b,c} Nancy Babio,^{b,d} Estefanía Toledo,^{b,c} Dolores Corella,^{b,e} Emilio Ros,^f Montserrat Fitó,^{b,g} Enrique Gómez-Gracia,^h Ramón Estruch,^{b,i} Miquel Fiol,^{b,j} José Lapetra,^{b,k} Angel Alonso-Gómez,^{b,k,l} Lluís Serra-Majem,^{b,m,n} Xavier Pintó,^{b,o} José V. Sorlí,^{b,e} Miguel A. Muñoz,^{b,p} Josep Basora,^{b,d} and Miguel Á. Martínez-González^{b,c,q}

Table 2. Baseline Characteristics of the Participants, According to Intervention Group.*

Characteristic	Mediterranean Diet with EVOO (N = 2543)	Mediterranean Diet with Nuts (N = 2454)	Control Diet (N = 2450)
Hypertension — no. (%)	2088 (82.1)	2024 (82.5)	2050 (83.7)
Type 2 diabetes — no. (%) †**	1282 (50.4)	1143 (46.6)	1189 (48.5)
Dyslipidemia — no. (%) ††	1821 (71.6)	1799 (73.3)	1763 (72.0)
Family history of premature CHD — no. (%) ‡‡	576 (22.7)	532 (21.7)	560 (22.9)

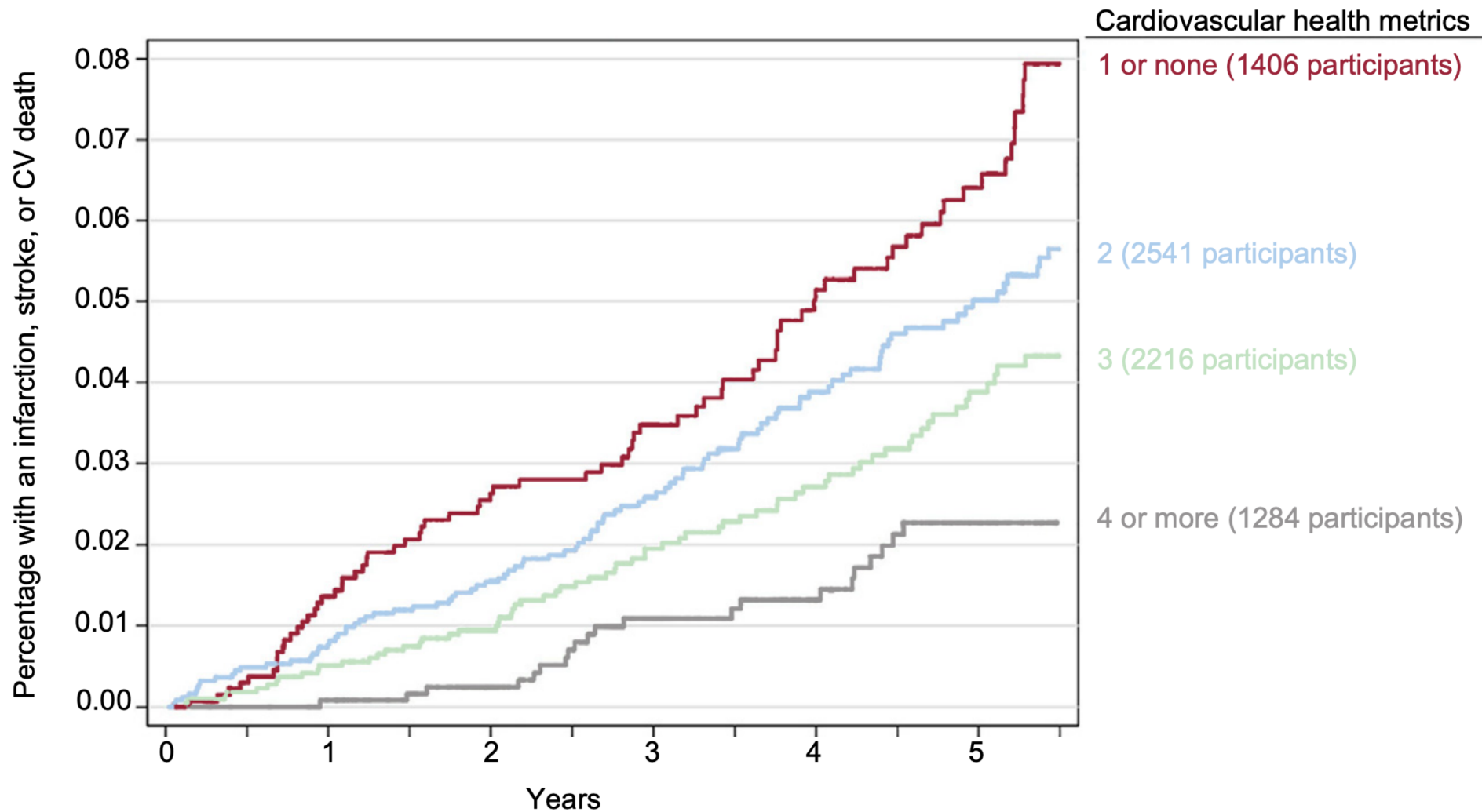
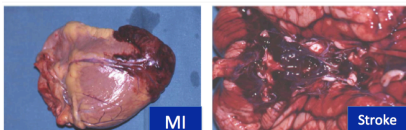
83 % Hipertensión
49 % Diabetes tipo 2
72 % Dislipidemia

Table 2
Number and percentage of participants by number of metrics

Number of metrics	No.	%
0	182	2.4
1	1224	16.4
2	2541	34.1
3	2216	29.8
4	1039	14.0
5	224	3.0
6	18	0.25
7	3	0.05
Total	7447	100

J. Díez-Espino et al. / Rev Esp Cardiol. 2020;73(3):205–211

Myocardial Infarction– Heart Attack
 Cerebrovascular disease– Stroke
 Cardiovascular deaths





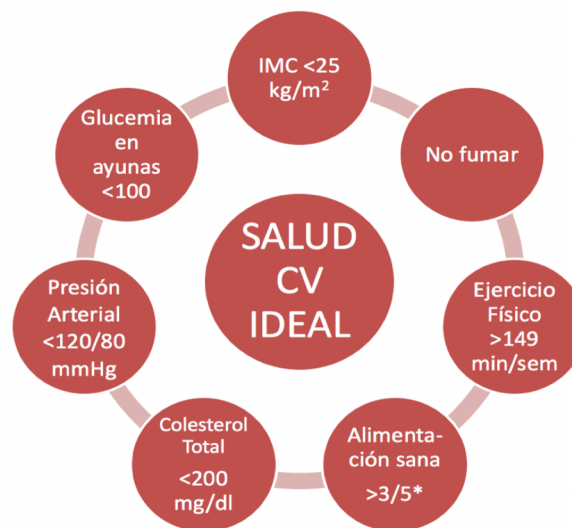
Introducción. ALIMENTACIÓN SANA... Y SIN TRAMPAS

1. DE QUÉ DEPENDE LA SALUD

El estilo de vida es la clave y está en tu mano

La salud no debería depender de una pastilla

Los parámetros esenciales son muy pocos

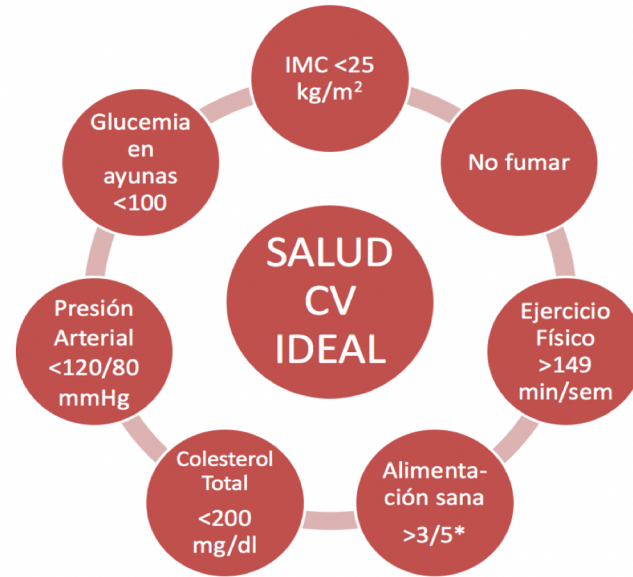


to effectively achieve the degree of prevention possible, we needed to move the emphasis 'upstream' to address *not only the causes of vascular disease* but the **'causes of the causes'**

Smith ER. Can J Cardiol 2010

- **PATRÓN alimentario de alta calidad**

Determinantes de los Factores de Riesgo



FR

**ECV,
complicaciones
y muertes
prematuras**

La vida es simple - 7

Dieta Mediterránea y aceite de oliva

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Peso corporal: sobrepeso y obesidad

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La vida es simple - 7

Dieta Mediterránea y aceite de oliva

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Best Diets Overall 2022

U.S. News has ranked 40 diets based on input from a panel of diet, nutrition and health experts. These are the Best Diets for 2022. Browse our diet profiles by narrowing down your results until you find the ones that are right for you.

[READ THE BEST DIETS METHODOLOGY »](#)



40 Diets

[Clear Filters](#)

[Ranking: Best Diets Overall](#) ×

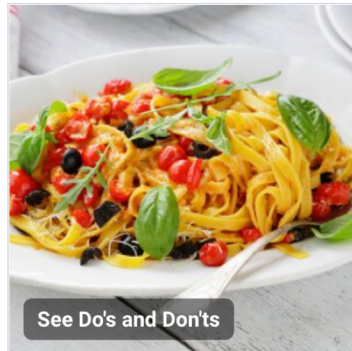
SORT BY: Ranking ▼

Find a Diet ^

Choose Diet ▼

Diets by Ranking ^

- ☐ All Diets
- ☒ Best Diets Overall
- ☐ Best Weight-Loss



[See Do's and Don'ts](#)

Mediterranean Diet

🏆 **#1 in Best Diets Overall**

With its emphasis on fruits, vegetables, olive oil, fish and other healthy fare, the Mediterranean diet is eminently sensible. [READ MORE »](#)

OVERALL SCORE

4.2/5.0

OVERALL WEIGHT LOSS

3.0/5.0

HEALTHINESS SCORE

4.8/5.0

Best Plant-Based Diets 2022

U.S. News has ranked diets based on input from a panel of diet, nutrition and health experts. Thirteen of these diets almost exclusively rely on plant-based food. Browse our diet profiles by narrowing down your results until you find the ones that are right for you.

[READ THE BEST DIETS METHODOLOGY »](#)



13 Diets

[Clear Filters](#)

[Ranking: Best Plant-Based Diets](#) ×

SORT BY: Ranking ▼

Find a Diet ^

Choose Diet ▼

Diets by Ranking ^

☐ All Diets

☐ Best Diets Overall



Mediterranean Diet

 **#1 in Best Plant-Based Diets**

With its emphasis on fruits, vegetables, olive oil, fish and other healthy fare, the Mediterranean diet is eminently sensible. [READ MORE »](#)

BEST PLANT BASED
DIET

4.2/5.0

OVERALL WEIGHT LOSS

3.0/5.0

HEALTHINESS SCORE

4.8/5.0

Best Diabetes Diets 2022

U.S. News has ranked 40 diets based on input from a panel of health experts and identified those are most effective for people living with diabetes . Browse our diet profiles by narrowing down your results until you find the ones that are right for you.

[READ THE BEST DIETS METHODOLOGY »](#)



40 Diets

[Clear Filters](#)

[Ranking: Best Diabetes Diets](#) ×

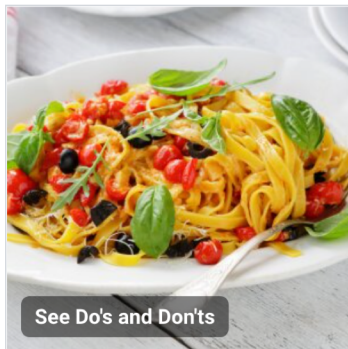
SORT BY: Ranking ▼

Find a Diet ^

Choose Diet ▼

Diets by Ranking ^

- ☐ All Diets
- ☐ Best Diets Overall
- ☐ Best Weight-Loss



Mediterranean Diet

🏆 **#1 in Best Diabetes Diets**

With its emphasis on fruits, vegetables, olive oil, fish and other healthy fare, the Mediterranean diet is eminently sensible. [READ MORE »](#)

BEST DIET FOR
DIABETES

3.8/5.0

OVERALL SCORE

4.2/5.0

HEALTHINESS SCORE

4.8/5.0

Best Heart-Healthy Diets 2022

U.S. News has ranked 40 diets based on input from a panel of health experts and identified those that are best for people concerned about heart health. Browse our diet profiles by narrowing down your results until you find the ones that are right for you.

[READ THE BEST DIETS METHODOLOGY »](#)



40 Diets

[Clear Filters](#)

[Ranking: Best Heart-Healthy Diets](#) ×

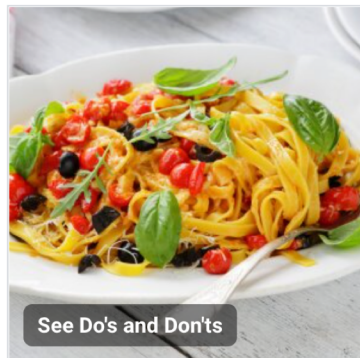
SORT BY: Ranking ▼

Find a Diet ^

Choose Diet ▼

Diets by Ranking ^

- ☐ All Diets
- ☐ Best Diets Overall
- ☐ Best Weight-Loss



[See Do's and Don'ts](#)

Mediterranean Diet

🏆 **#1 in Best Heart-Healthy Diets** (tie)

With its emphasis on fruits, vegetables, olive oil, fish and other healthy fare, the Mediterranean diet is eminently sensible. [READ MORE »](#)

BEST DIET FOR HEART
HEALTH

4.3/5.0

OVERALL SCORE

4.2/5.0

HEALTHINESS SCORE

4.8/5.0

Best Diets for Healthy Eating 2022

U.S. News has ranked 40 diets based on input from a panel of health experts. These are the diets that the experts ranked highly for overall healthy eating. Browse our diet profiles by narrowing down your results until you find the ones that are right for you.

READ THE BEST DIETS METHODOLOGY »



40 Diets

Clear Filters

Ranking: Best Diets for Healthy Eating X

SORT BY: Ranking ▼

Find a Diet ^

Choose Diet ▼

- Diets by Ranking ^
- ☐ All Diets

☐ Best Diets Overall

☐ Best Weight-Loss



See Do's and Don'ts

Mediterranean Diet

#1 in Best Diets for Healthy Eating

With its emphasis on fruits, vegetables, olive oil, fish and other healthy fare, the Mediterranean diet is eminently sensible. [READ MORE »](#)

HEALTHINESS SCORE
4.8/5.0
OVERALL SCORE
4.2/5.0
OVERALL WEIGHT LOSS
3.0/5.0

Easiest Diets to Follow 2022

U.S. News has ranked how easy it is to follow each of the 40 diets programs based on input from a panel of health experts. Browse our diet profiles by narrowing down your results until you find the ones that are right for you.

READ THE BEST DIETS METHODOLOGY »



40 Diets

Clear Filters

Ranking: Easiest Diets to Follow X

SORT BY: Ranking ▼

Find a Diet ^

Choose Diet ▼

Diets by Ranking ^

All Diets

Best Diets Overall

Best Weight-Loss



See Do's and Don'ts

Mediterranean Diet

#1 in Easiest Diets to Follow

With its emphasis on fruits, vegetables, olive oil, fish and other healthy fare, the Mediterranean diet is eminently sensible. **READ MORE »**

BEST EASIEST DIET TO FOLLOW

3.7/5.0

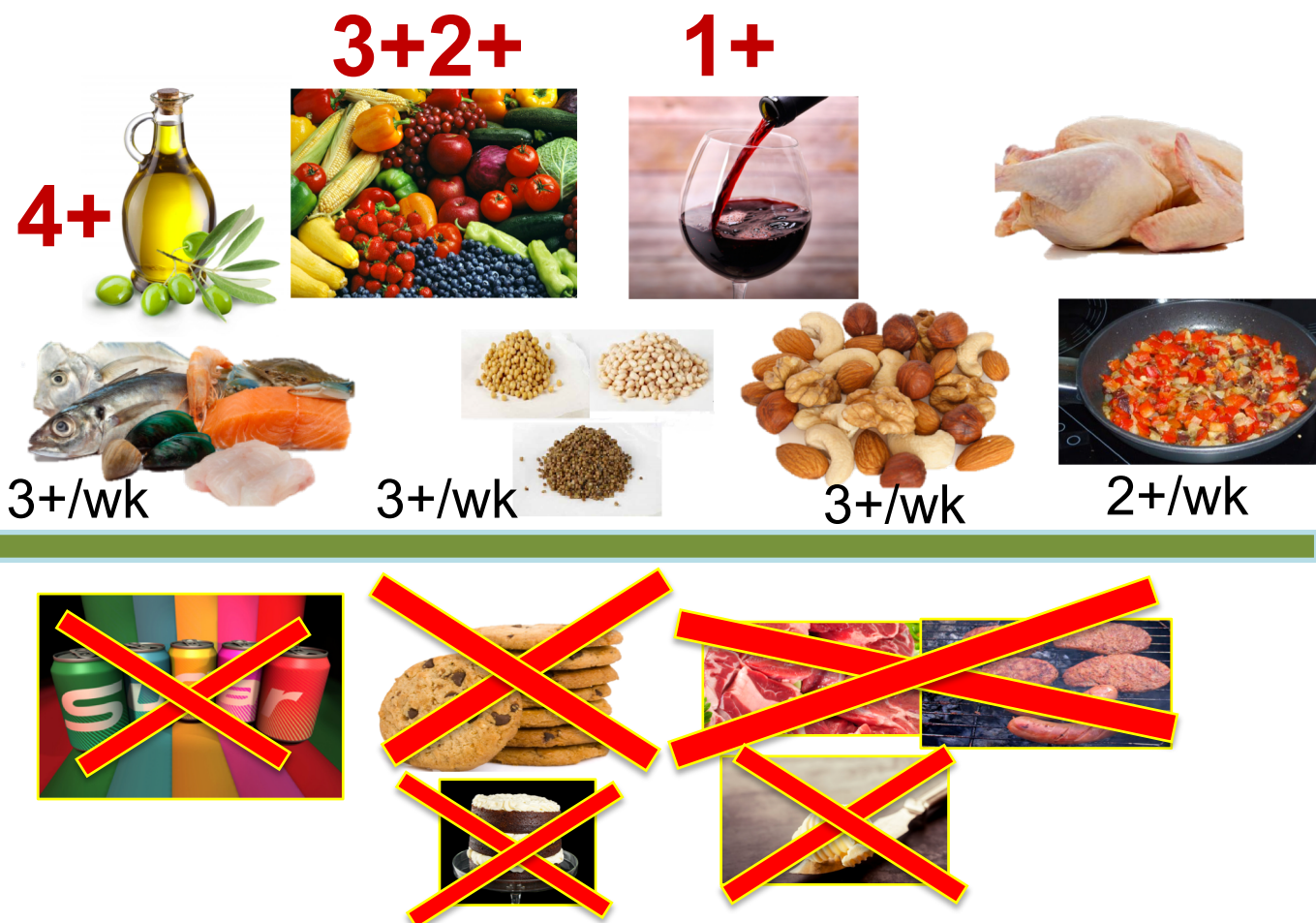
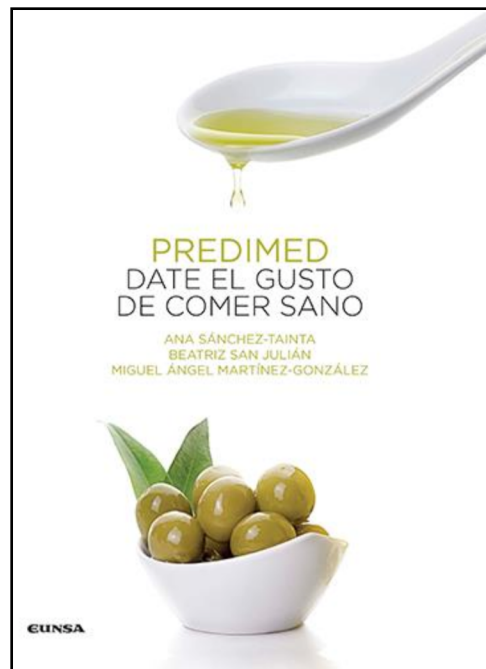
OVERALL SCORE

4.2/5.0

HEALTHINESS SCORE

4.8/5.0

¿Qué es la dieta
mediterránea?



14-item **ME**diterranean **D**iet **A**dherence **S**creener: **MEDAS**

MEDAS: 14-item PREDIMED *intervention* tool

Development of a short dietary intake questionnaire for the quantitative estimation of adherence to a cardioprotective Mediterranean diet

MA Martínez-González^{1,*}, E Fernández-Jarne¹, M Serrano-Martínez¹, M Wright¹ and E Gomez-Gracia² [Eur J Clin Nutr 2004;58:1550](#)

A Short Screener Is Valid for Assessing Mediterranean Diet Adherence among Older Spanish Men and Women¹⁻³

Helmut Schröder,^{4,5} Montserrat Fitó,^{4,5} Ramón Estruch,^{3,6} Miguel A. Martínez-González,⁸ [J Nutr 2011;141:1140](#)



Article

Validation of the English Version of the 14-Item Mediterranean Diet Adherence Screener of the PREDIMED Study, in People at High Cardiovascular Risk in the UK

Angeliki Papadaki^{1,2,*}, Laura Johnson¹, Zoi Toumpakari¹, Clare England^{1,2}, Manmita Rai², Stu Toms², Chris Penfold², Itziar Zazpe^{3,4}, Miguel A. Martínez-González^{4,5} and Gene Feder⁶

Exploring the **Validity** of the **14-Item Mediterranean** Diet Adherence Screener (MEDAS): A Cross-National Study in Seven European Countries around the **Mediterranean** Region.

García-Conesa MT, Philippou E, Pafilas C, Massaro M, Quarta S, Andrade V, Jorge R, Chervenkov M, Ivanova T, Dimitrova D, Maksimova V, Smilkov K, Ackova DG, Miloseva L, Ruskovska T, Deligiannidou GE, Kontogiorgis CA, Pinto P.

Nutrients. 2020 Sep 27;12(10):2960. doi: 10.3390/nu12102960.

DOI

The Mediterranean diet, plasma metabolome, and cardiovascular disease risk.

Li J, Guasch-Ferré M, Chung W, Ruiz-Canela M, Toledo E, Corella D, Bhupathiraju SN, Tobias DK, Tabung FK, Hu J, Zhao T, Turman C, Feng YA, Clish CB, Mucci L, Eliassen AH, Costenbader KH, Karlson EW, Wolpin BM, Ascherio A, Rimm EB, Manson JE, Qi L, Martínez-González MÁ, Salas-Salvadó J, Hu FB, Liang L. [Eur Heart J. 2020 Jul 21;41\(28\):2645-2656. doi: 10.1093/eurheartj/ehaa209.](#)

Validation of the German version of the Mediterranean Diet Adherence Screener (MEDAS) questionnaire.

Hebestreit K, Yahiaoui-Doktor M, Engel C, Vetter W, Siniatchkin M, Erickson N, Halle M, Kiechle M, Bischoff SC. [BMC Cancer. 2017 May 18;17\(1\):341. doi: 10.1186/s12885-017-3337-y. PMID: 28521737 **Free PMC Article**](#)

Validation of the Telephone-Administered Version of the Mediterranean Diet Adherence Screener (MEDAS) Questionnaire.

Gregório MJ, Rodrigues AM, Salvador C, Dias SS, de Sousa RD, Mendes JM, Coelho PS, Branco JC, Lopes C, Martínez-González MA, Graça P, Canhão H. [Nutrients. 2020 May 22;12\(5\):1511. doi: 10.3390/nu12051511.](#)

Translation and cross-cultural adaptation of 14-item Mediterranean Diet Adherence Screener and low-fat diet adherence questionnaire.

Vieira LM, Gottschall CBA, Vinholes DB, Martinez-Gonzalez MA, Marcadenti A. [Clin Nutr ESPEN. 2020 Oct;39:180-189. doi: 10.1016/j.clnesp.2020.06.018. Epub 2020 Jul 22.](#)

Mediterranean diet assessment challenges: **Validation** of the Croatian Version of the **14-item Mediterranean** Diet Serving Score (MDSS) Questionnaire.

Marendić M, Polić N, Matek H, Oršulić L, Polašek O, Kolčić I. [PLoS One. 2021 Mar 1;16\(3\):e0247269. doi: 10.1371/journal.pone.0247269. eCollection 2021.](#)



AHA SCIENTIFIC STATEMENT

Rapid Diet Assessment Screening Tools for Cardiovascular Disease Risk Reduction Across Healthcare Settings

A Scientific Statement From the American Heart Association

Of the 15 tools reviewed for this statement, the 3 that met the greatest number of theoretical and practice-based validity criteria were the Mediterranean Diet Adherence Screener (MEDAS)^{47–51} and its variations,⁵²

La Asociación Americana del Corazón avala los 14 puntos de dieta mediterránea de PREDIMED

20M EP NOTICIA 25.05.2021 - 12:24H



La Asociación Americana del Corazón (American Heart Association, AHA por sus siglas en inglés) ha avalado los 14 puntos de dieta mediterránea establecidos por el estudio PREDIMED (Prevención Dieta Mediterránea), coordinado desde el CIBEROBN, como herramienta de valoración y consejo nutricional en los centros sanitarios.



La Asociación Americana del Corazón avala los 14 puntos de dieta mediterránea de PREDIMED

Mediterranean Diet

1. Do you use OLIVE OIL as MAIN culinary fat?

☐ 0=No
☒ 1=Yes

2. How much OLIVE OIL do you consume in a given day (including oil used for frying, salads, out-of-house meals, etc.)?

☐ 0=Less than 4 tbsp
☒ 1=4 or more tbsp

3. How many VEGETABLE servings do you consume per day? (1 serving : 200 g [consider side dishes as half a serving])

☐ 0=Less than 2
☒ 1=2 or more

4. How many FRUIT units (including natural fruit juices) do you consume per day?

☐ 0=Less than 3
☒ 1=3 or more

5. How many servings of RED MEAT, HAMBURGER, or MEAT PRODUCTS (ham, sausage, etc.) do you consume per day? (1 serving: 100-150 g)

☐ 0=1 or more
☒ 1=Less than 1

6. How many servings of BUTTER, MARGARINE, or CREAM do you consume per day? (1 serving: 12 g)

☐ 0=1 or more
☒ 1=Less than 1

7. How many SWEET or CARBONATED BEVERAGES do you drink per day?

☐ 0=1 or more
☒ 1=Less than 1

8. How much WINE do you drink per week?

☐ 0=< 7 glasses
☒ 1=7+ glasses

9. How many servings of LEGUMES (i.e. beans, peas, lentils) do you consume per week? (1 serving : 150 g)

☐ 0=Less than 3
☒ 1=3 or more

10. How many servings of FISH or SHELLFISH do you consume per week? (1 serving 100-150 g of fish or 4-5 units or 200 g of shellfish)

☐ 0=Less than 3
☒ 1=3 or more

11. How many times per week do you consume COMMERCIAL SWEETS or PASTRIES (not homemade), such as cakes, cookies, biscuits, or custard?

☐ 0=3 or more
☒ 1=Less than 3

12. How many servings of NUTS (including peanuts) do you consume per week? (1 serving 30 g)

☐ 0=Less than 3
☒ 1=3 or more

13. Do you PREFERENTIALLY consume CHICKEN, TURKEY, or rabbit meat instead of veal, pork, hamburger, or sausage?

☐ 0=No
☒ 1=Yes or N/A (vegetarian)

14. How many times per week do you consume vegetables, pasta, rice, or other dishes seasoned with SOFRITO (sauce made with tomato and onion, leek, or garlic and simmered with olive oil)?

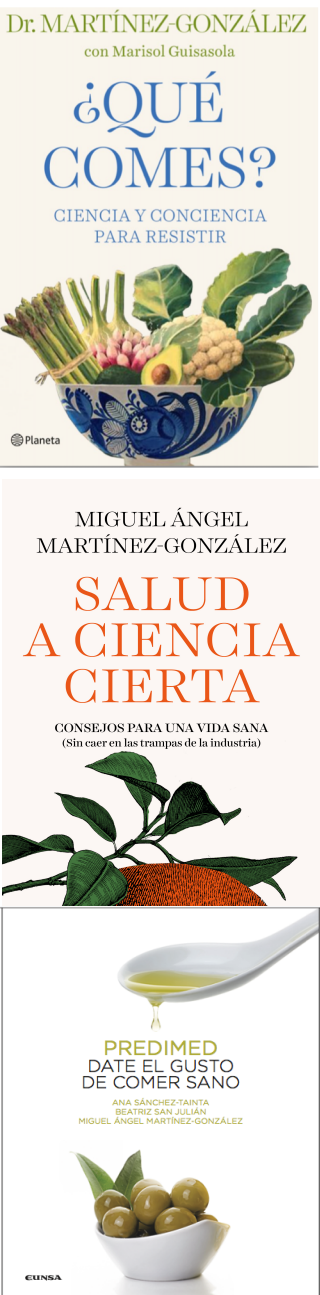
☐ 0=Less than 2
☒ 1=2 or more

Score

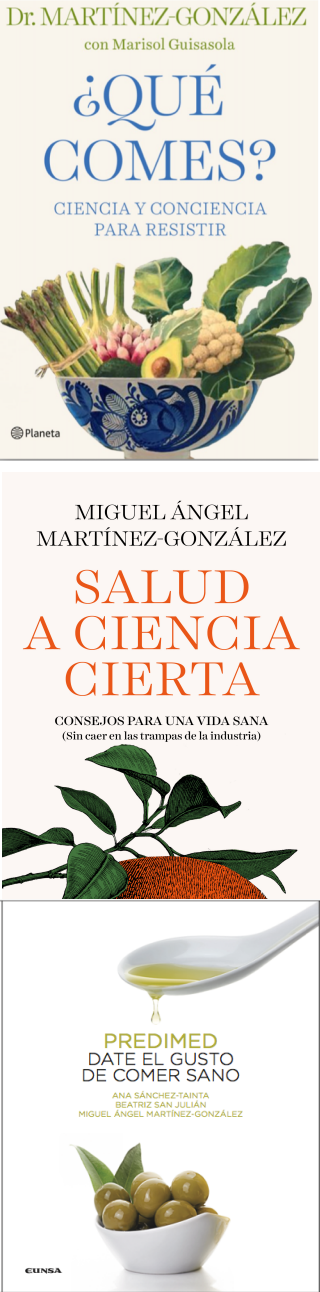
14

Interpretation

A strong Mediterranean diet



1	¿Usa usted el aceite de oliva como principal grasa para cocinar?	Si = 1 punto	☐
2	¿Cuanto aceite de oliva consume en total al día (incluyendo el usado para freír, comidas fuera de casa, ensaladas, etc.)?	4 o más cucharadas = 1 punto	☐
3	¿Cuántas raciones de verdura u hortalizas consume al día? (las guarniciones o acompañamientos = 1/2 ración) 1 ración = 200 g	2 o más (al menos una de ellas en ensalada o crudas) = 1 punto	☐
4	¿Cuántas piezas de fruta (incluyendo zumo natural) consume al día?	3 o más al día = 1 punto	☐
5	¿Cuántas raciones de carnes rojas, hamburguesas, salchichas o embutidos consume al día? (ración: 100-150 g)	Menos de 1 al día = 1 punto	☐
6	¿Cuántas raciones de mantequilla, margarina o nata consume al día? (porción individual: 12 g)	Menos de 1 al día = 1 punto	☐
7	¿Cuántas bebidas carbonatadas y/o azucaradas (refrescos, colas, tónicas, bitter) consume al día?	Menos de 1 al día = 1 punto	☐



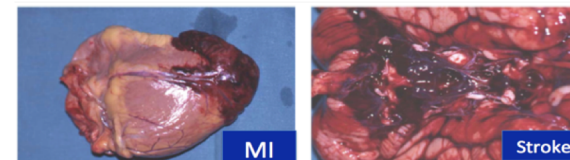
8	¿Bebe usted vino? ¿Cuánto consume a la semana?	7 o más vasos a la semana = 1 punto	☐
9	¿Cuántas raciones de legumbres consume a la semana? (1 plato o ración do 150 g)	3 o más a la semana = 1	☐
10	¿Cuántas raciones de pescado/mariscos consume a la semana? (1 plato pieza o ración: 100-150 de pescado o 4-5 piezas o 200 g de marisco)	3 o más a la semana = 1	☐
11	¿Cuántas veces consume reposteria comercial (no casera) como galletas, flanes, dulce o pasteles a la semana?	Menos de dos a la semana = 1 punto	☐
12	¿Cuántas veces consume frutos secos a la semana? (ración 30 g)	3 o más a la semana = 1 punto	☐
13	¿Consume usted preferentemente carne de pollo, pavo o conejo en vez de ternera, cerdo, hamburguesas o salchichas? (carne de pollo: 1 pieza o ración de 100-150 g)	Sí = 1 punto	☐
14	¿Cuántas veces a la semana consume los vegetales cocinados, la pasta, arroz u otros platos aderezados con salsa de tomate, ajo,	2 o más a la semana = 1 punto	☐

ORIGINAL ARTICLE

Primary Prevention of Cardiovascular Disease with a Mediterranean Diet Supplemented with Extra-Virgin Olive Oil or Nuts

R. Estruch, E. Ros, J. Salas-Salvadó, M.-I. Covas, D. Corella, F. Arós, E. Gómez-Gracia, V. Ruiz-Gutiérrez, M. Fiol, J. Lapetra, R.M. Lamuela-Raventos, L. Serra-Majem, X. Pintó, J. Basora, M.A. Muñoz, J.V. Sorlí, J.A. Martínez, M. Fitó, A. Gea, M.A. Hernán, and M.A. Martínez-González,

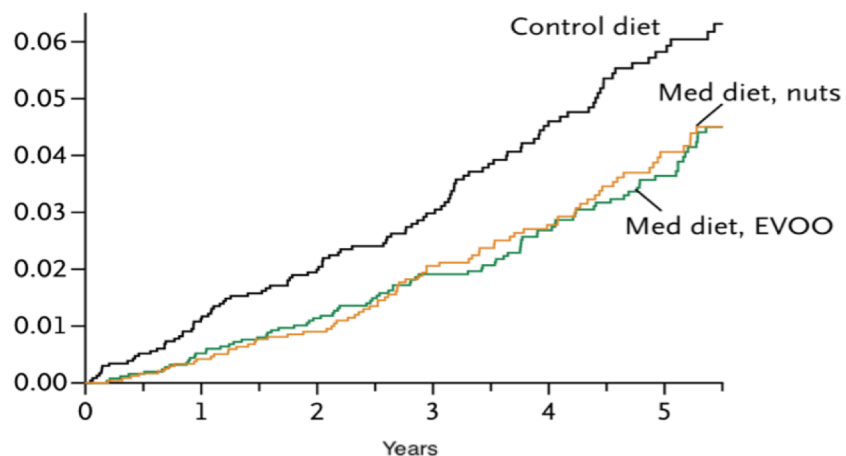
Myocardial Infarction— Heart Attack
Cerebrovascular disease— Stroke
Cardiovascular deaths



Hazard Ratios (95% CI)*

EVOO: 0.70 (0.53-0.91), P=0.009

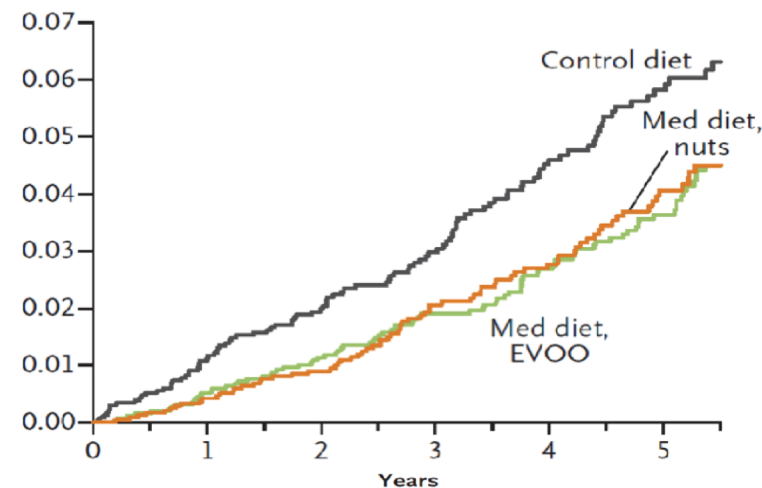
Nuts: 0.70 (0.53-0.94), P=0.016



Number at risk						
Control group	2450	2268	2020	1583	1268	946
MeDiet+EVOO	2543	2486	2320	1987	1687	1310
MeDiet+Nuts	2454	2343	2093	1657	1389	1031

2013

Med diet, EVOO: hazard ratio, 0.69 (95% CI, 0.53–0.91)
Med diet, nuts: hazard ratio, 0.72 (95% CI, 0.54–0.95)



No. at Risk						
Control diet	2450	2268	2020	1583	1268	946
Med diet, EVOO	2543	2486	2320	1987	1687	1310
Med diet, nuts	2454	2343	2093	1657	1389	1031

2018

Long-term secondary prevention of cardiovascular disease with a Mediterranean diet and a low-fat diet (CORDIOPREV): a randomised controlled trial

Javier Delgado-Lista*, Juan F Alcalá-Díaz*, Jose D Torres-Peña, Gracia M Quintana-Navarro, Francisco Fuentes, Antonio García-Ríos, Ana M Ortiz-Morales, Ana I González-Requero, Ana I Pérez-Caballero, Elena M Yubero-Serrano, Oriol A Rangel-Zuñiga, Antonio Camargo, Fernando Rodríguez-Cantalejo, Fernando López-Segura, Lina Badimon, Jose M Ordovas, Francisco Pérez-Jiménez, Pablo Pérez-Martínez‡, Jose Lopez-Miranda†, for the CORDIOPREV Investigators‡

INDEPENDENT REPLICATION

CORDIOPREV RCT (Córdoba, Spain)

2^{ary} prevention randomized trial

Men and women with established coronary heart disease (aged 20–75 years)

Lancet **Online May 4, 2022**

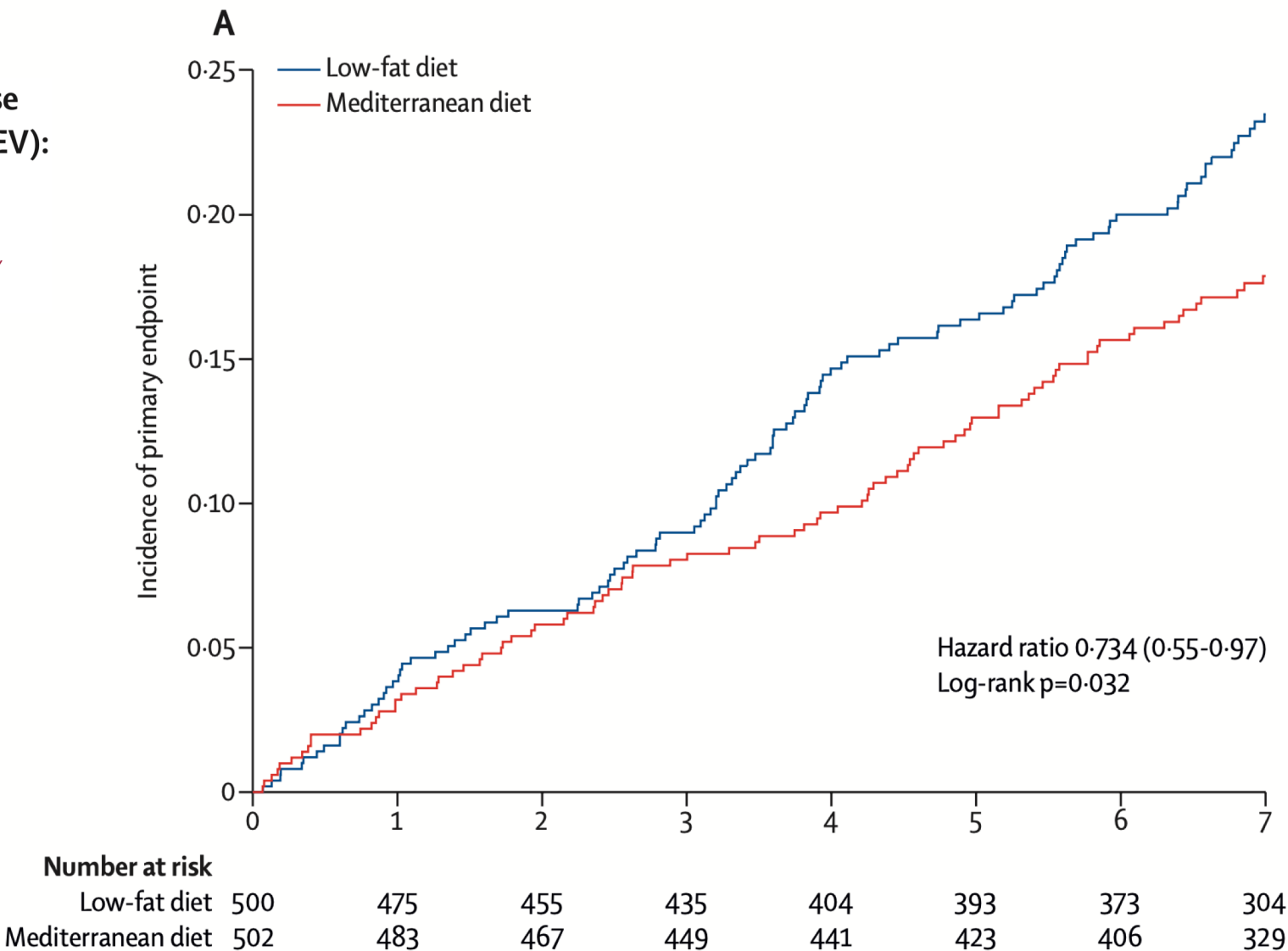


Figure 2: Kaplan-Meier estimates of the incidence of the composite primary endpoints of myocardial infarction, revascularisation, ischaemic stroke, documented peripheral artery disease, and cardiovascular death events

Olive Oil Consumption and Cardiovascular Risk in U.S. Adults



Marta Guasch-Ferré, PhD,^{a,b} Gang Liu, PhD,^c Yanping Li, PhD,^a Laura Sampson, RD,^a JoAnn E. Manson, MD, DrPH,^{b,d,e} Jordi Salas-Salvadó, MD, PhD,^{f,g} Miguel A. Martínez-González, MD, PhD,^{a,g,h} Meir J. Stampfer, MD, PhD,^{b,d} Walter C. Willett, MD, DrPH,^{a,b,d} Qi Sun, MD, PhD,^{a,b} Frank B. Hu, MD, PhD^{a,b,c}

RESULTS During 24 years of follow-up, this study documented 9,797 incident cases of CVD, including 6,034 CHD cases and 3,802 stroke cases. After adjusting for major diet and lifestyle factors, compared with nonconsumers, those with higher olive oil intake (>0.5 tablespoon/day or >7 g/day) had 14% lower risk of CVD (pooled HR: 0.86; 95% CI: 0.79 to 0.94) and 18% lower risk of CHD (pooled HR: 0.82; 95% CI: 0.73 to 0.91).

J Am Coll Cardiol 2020;75:1729–39

Top Medicine Scientists

This 1st edition of top scientists ranking for Medicine was published by Research.com, one of the major websites for Medicine research offering credible data on scientific contributions since 2014.

The ranking contains h-index, publications and citations values collected on December 6th, 2021 . [Show more](#)

Released
May 16,
2022

Search by keyword			Medicine	▼	All countries	▼
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1	1	 Walter C. Willett Harvard University, United States	347	626,421	2,641	
2	2	 Graham A. Colditz Washington University in St. Louis, United States	314	381,607	1,539	
3	3	 JoAnn E. Manson Harvard Medical School, United States	308	359,636	1,853	
4	4	 Ronald C. Kessler Harvard University, United States	300	424,563	1,063	
5	5	 Frank B. Hu Harvard University, United States	287	330,866	1,765	



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Olive Oil Consumption and Cardiovascular Risk in U.S. Adults

Marta Guasch-Ferré, PhD,^{a,b} Gang Liu, PhD,^c Yanping Li, PhD,^a Laura Sampson, RD,^a JoAnn E. Manson, MD, DrPH,^{b,d,e} Jordi Salas-Salvadó, MD, PhD,^{f,g} Miguel A. Martínez-González, MD, PhD,^{a,g,h} Meir J. Stampfer, MD, PhD,^{b,d} Walter C. Willett, MD, DrPH,^{a,b,d} Qi Sun, MD, PhD,^{a,b} Frank B. Hu, MD, PhD^{a,b,d}

CENTRAL ILLUSTRATION

Hazard Ratios for Cardiovascular Disease, Coronary Heart Disease, and Stroke Associated With Olive Oil Substituted for Other Fats

	Nurses' Health Study	Health Professionals Follow-Up Study	Pooled	Pooled Hazard Ratios (95% CI)
Cardiovascular disease				
Olive oil for margarine				0.94 (0.91-0.97)
Olive oil for butter				0.95 (0.91-1.00)
Olive oil for mayonnaise				0.93 (0.89-0.98)
Olive oil for other vegetable oils				0.98 (0.92-1.04)
Olive oil for dairy fat				0.95 (0.92-0.98)
Olive oil for all other fats				0.94 (0.91-0.97)

La vida es simple - 7

Dieta Mediterránea y aceite de oliva

Alcohol

Peso corporal: sobrepeso y obesidad

Sinergias e índices combinados



Review

Alcohol, Drinking Pattern, and Chronic Disease

María Barbería-Latasa ¹ , Alfredo Gea ^{1,2,3,*}  and Miguel A. Martínez-González ^{1,2,3} 



Figure 1. Diverging recommendations on alcohol consumption.

Gea A, et al. Mediterranean alcohol-drinking pattern and mortality in the SUN (Seguimiento Universidad de Navarra) Project: a prospective cohort study

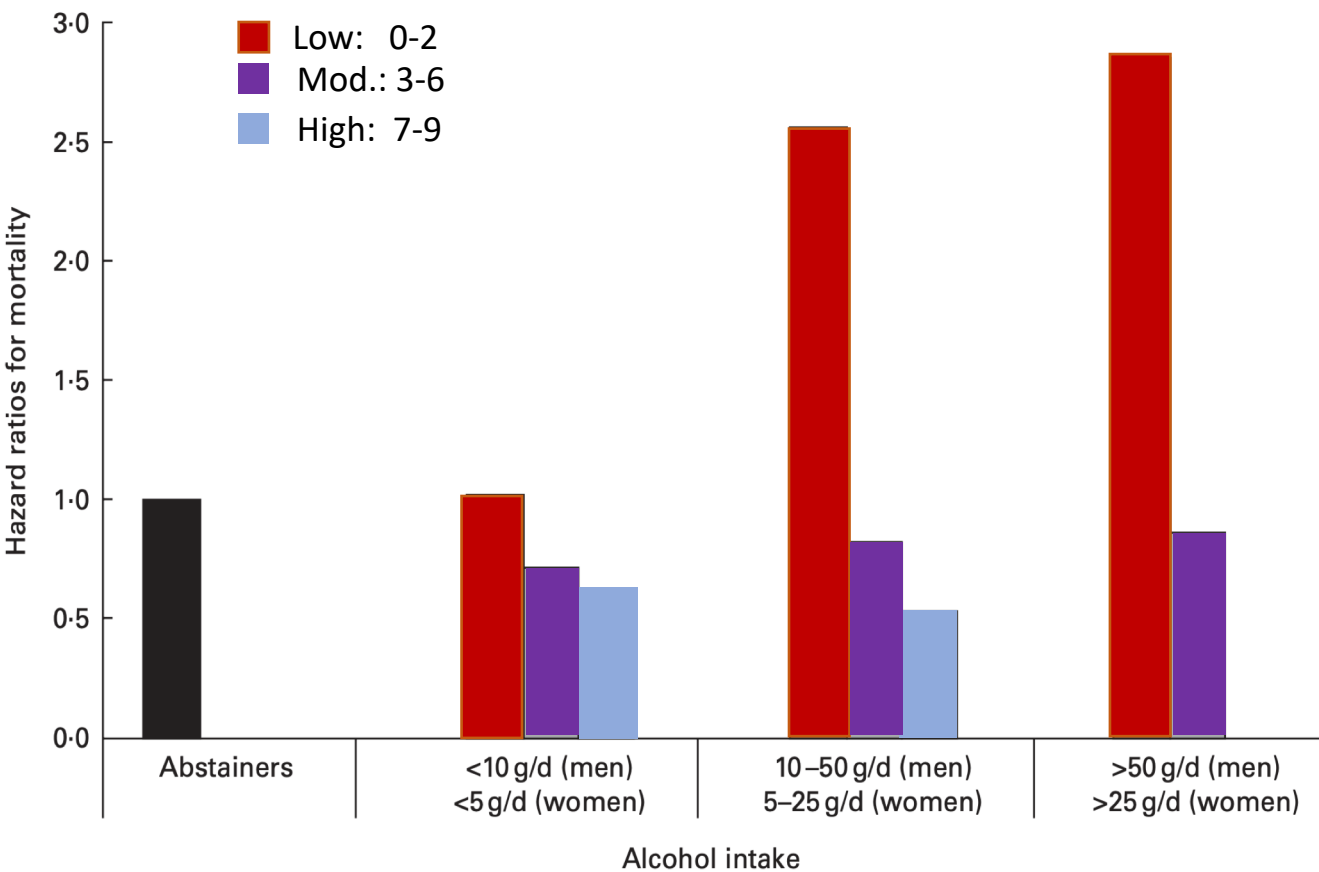
> Br J Nutr. 2014 May 28;111(10):1871-80.

Table 1. Score of the Mediterranean alcohol-drinking pattern

Items	Criteria	Score
Moderate alcohol intake (g/d)*	Low intake: women >0–5 g/d; men >0–10 g/d Moderate intake: women 5–25 g/d; men 10–50 g/d High intake: women >25 g/d; men >50 g/d	1 point 2 points 0 points
Alcohol consumption spread out over the week (d/week:g/week ratio)†	Evenly distributed: in Q4 Moderately distributed: in Q2–Q3 Not distributed: in Q1	2 points 1 point 0 points
Low spirit consumption (alcohol from spirits/total alcohol)‡	Low spirit consumption: <25 % High spirit consumption: ≥25 %	1 point 0 points
Wine preference (alcohol from wine/total alcohol)§	Wine preference: ≥75 % No wine preference: <75 %	1 point 0 points
Wine consumed preferably with meals (wine with meals/total wine)	Preferably with meals: ≥75 % Out of meals: <75 %	1 point 0 points
Preference for red wine over other types of wine (red wine/total wine)¶	Red wine preference: ≥75 % No red wine preference: <75 %	1 point 0 points
No excess consumption (maximum drinks in a single occasion)**	No excess: ≤5 drinks in a single occasion Any excess: >5 drinks in a single occasion	1 point 0 points

MADP = 0 to 9 points

During the follow-up, 206 deaths were identified. For each 2-point increment in a 0-9 score of adherence to the MADP, we observed a 25% relative risk reduction in mortality (95% CI 11, 38%). Within each category of **alcohol** intake, a higher adherence to the MADP was associated with lower mortality. Abstainers (excluded from the calculations of the MADP) exhibited higher mortality (hazard ratio 1.82, 95% CI 1.14, 2.90) than participants highly adherent to the MADP.



Association between patterns of alcohol consumption (beverage type, frequency and consumption with food) and risk of adverse health outcomes: a prospective cohort study

BMC Med 2021;19:8

Bhautesh Dinesh Jani^{1*}, Ross McQueenie¹, Barbara I. Nicholl¹, Ryan Field², Peter Hanlon¹, Katie I. Gallacher¹,
 Frances S. Mair¹ and Jim Lewsey²

UK Biobank. N = 309,123. Median follow-up: 9 years

Major CVD

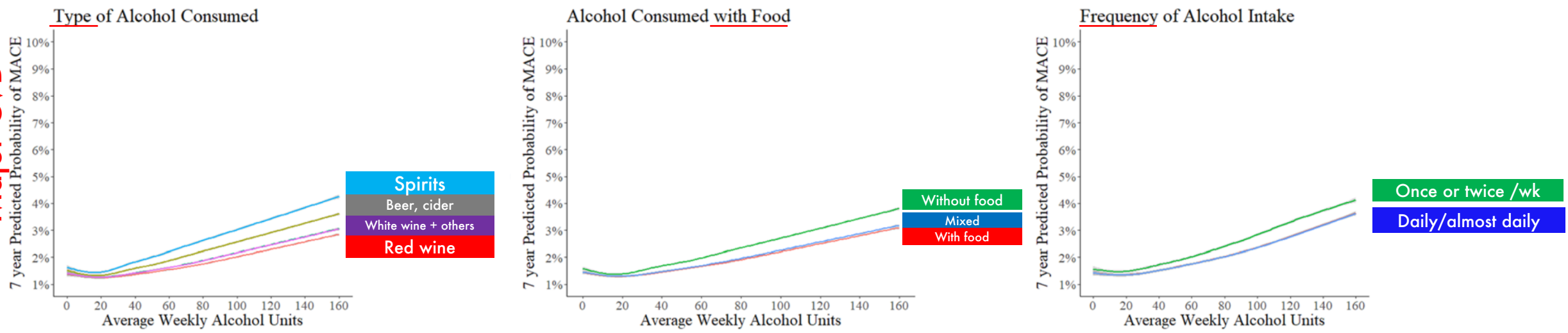


Fig. 3 Predicted probability (7-year) of major adverse cardiovascular event-MACE (myocardial infarction/stroke/cardiovascular death), average amount of total weekly alcohol units and different patterns of alcohol consumption. All results adjusted for age, sex, Townsend score for socio-economic deprivation, smoking habits, BMI, physical activity levels, number of long-term conditions, self-rated health, CRP levels, systolic blood pressure, total cholesterol levels, diabetes and hypertension

Check for updates

Alcohol Consumption Levels as Compared With Drinking Habits in Predicting All-Cause Mortality and Cause-Specific Mortality in Current Drinkers

Hao Ma, MD, PhD; Xiang Li, MD; Tao Zhou, MD, PhD; Dianjiangyi Sun, MD, PhD;
 Iris Shai, RD, PhD; Yoriko Heianza, MD, PhD; Eric B. Rimm, MD, PhD;
 JoAnn E. Manson, MD, PhD; and Lu Qi, MD, PhD

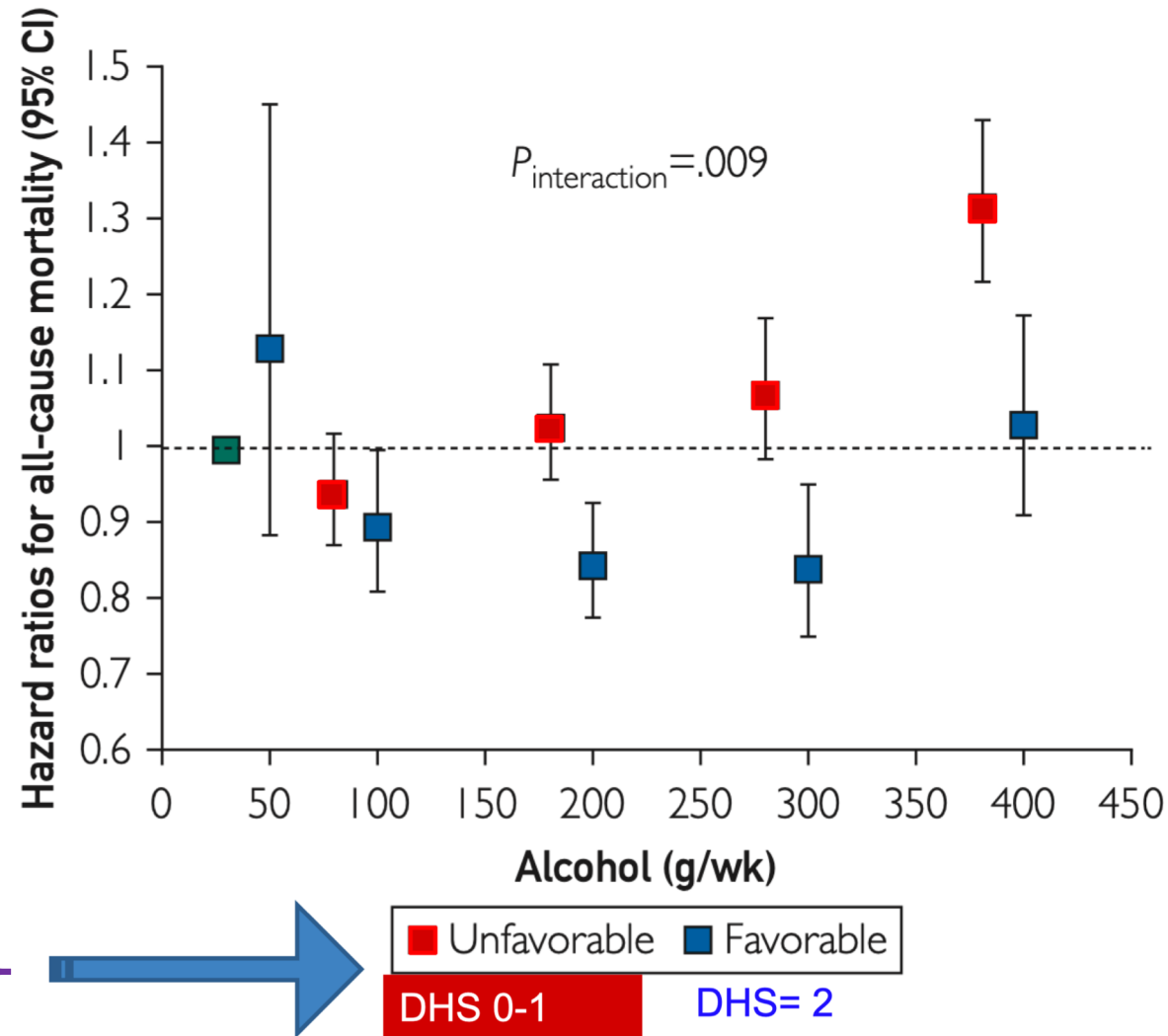
Mayo Clin Proc. 2021 Jul;96:1758-69

Exclusion of abstainers
 316 627 drinkers UK biobank

Drinking Habit Score

According to previous studies, a *healthy drinking habit score* (DHS) was defined by regular drinking (frequency of alcohol intake ≥ 3 times/wk)^{22,23} and consuming alcohol with meals (participant who indicated they drink alcohol with meals). One point was given for each favorable drinking habit (range, 0-2).

All-cause mortality



La vida es simple - 7

Dieta Mediterránea y aceite de oliva

Alcohol

Peso corporal: sobrepeso y obesidad

Sinergias e índices combinados

La vida es simple - 7

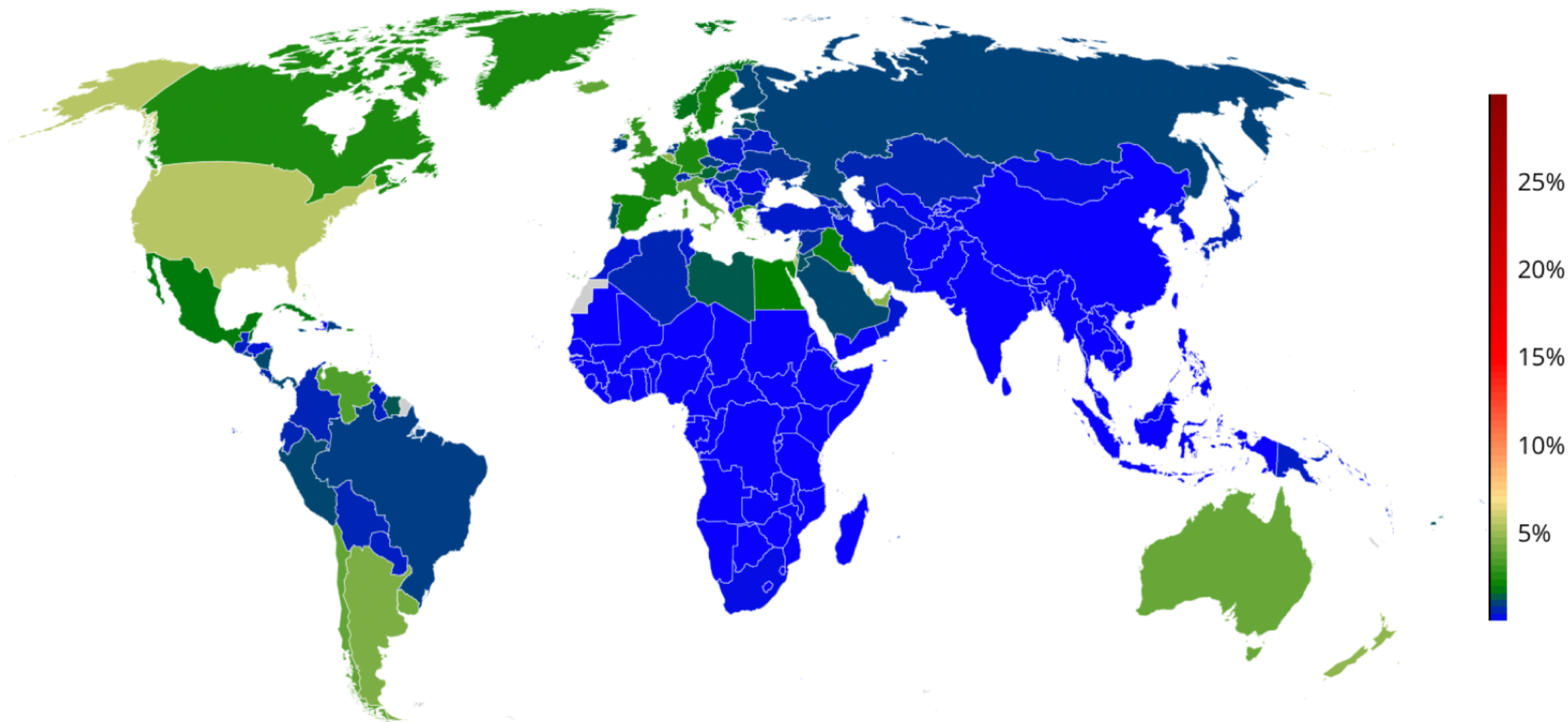
Dieta Mediterránea y aceite de oliva

Alcohol

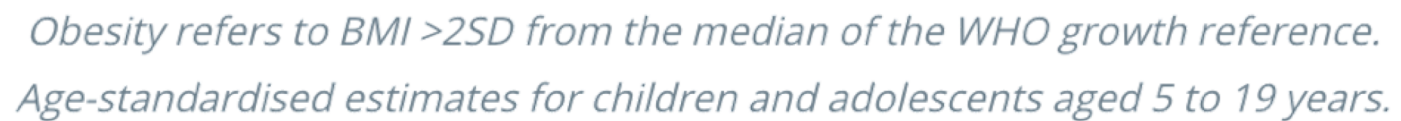
Peso corporal: sobrepeso y obesidad

Sinergias e índices combinados

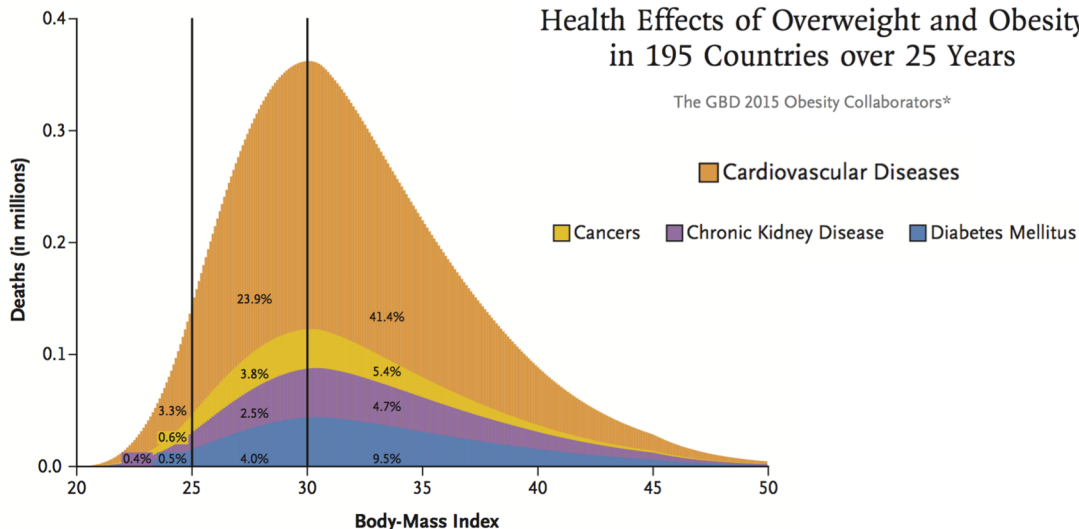
Prevalencia de obesidad. Chicas 1975



*Obesity refers to BMI >2SD from the median of the WHO growth reference.
Age-standardised estimates for children and adolescents aged 5 to 19 years.*



D Deaths in 2015



Health Effects of Overweight and Obesity in 195 Countries over 25 Years

The GBD 2015 Obesity Collaborators*

Cardiovascular Diseases

Cancers Chronic Kidney Disease Diabetes Mellitus

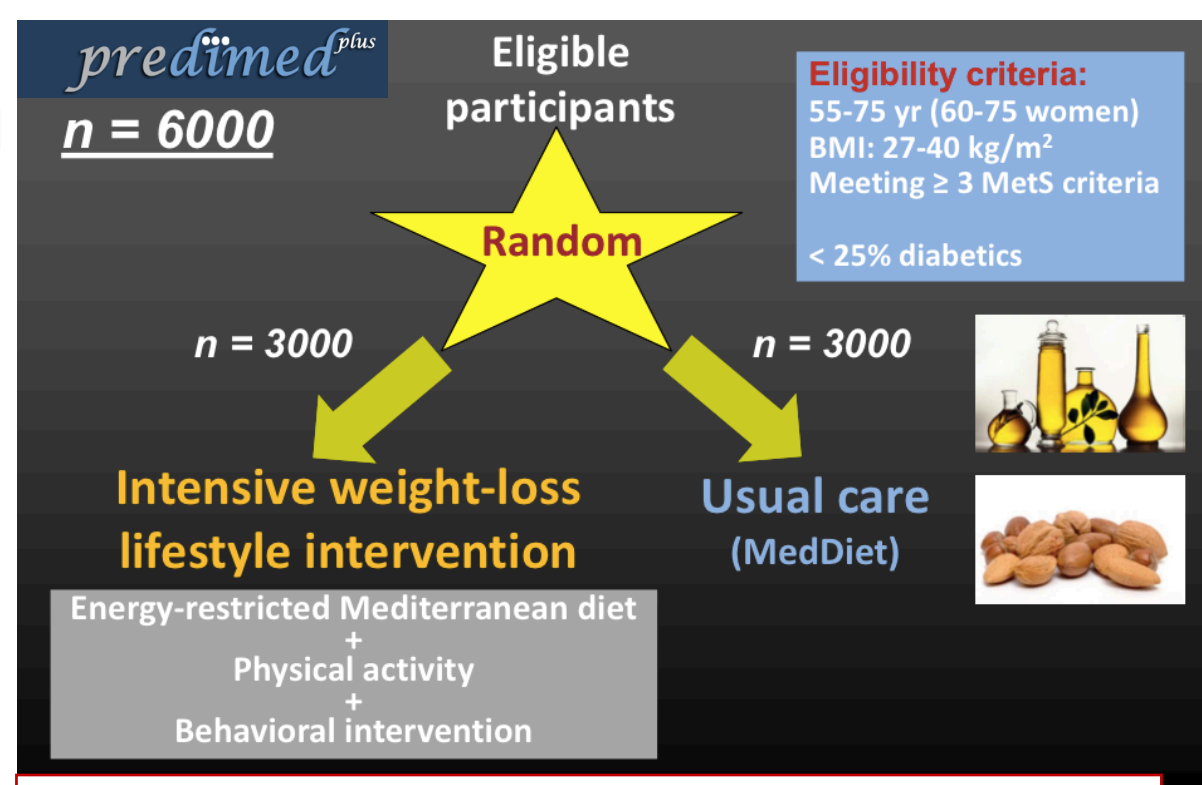
N Engl J Med. 2017 Jul 6;377:13-27.

Effect of a Lifestyle Intervention Program With Energy-Restricted Mediterranean Diet and Exercise on Weight Loss and Cardiovascular Risk Factors: One-Year Results of the PREDIMED-Plus Trial

<https://doi.org/10.2337/dc18-0836>

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 Lúis Serra-Majem,^{2,7} Julia Wärnberg,^{2,8}
 Dora Romaguera,^{2,9} Ramon Estruch,^{2,10}
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 Xavier Pintó,^{2,28} Lidia Daimiel,^{2,29}
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 Javier Díez-Espino,^{2,3,33} Nancy Babio,^{1,2}
 Olga Castañer,^{2,5} José V. Sorlí,^{2,6}
 Miquel Fiol,^{2,9} Maria Ángeles Zulet,^{2,14}
 Mònica Bulló,^{1,2} Albert Goday,^{2,5,34}
 Miguel A. Martínez-González,^{2,3,35}

Diabetes Care 2019;42:777-88.



Cohort Profile

Cohort Profile: Design and methods of the PREDIMED-Plus randomized trial

Miguel A Martínez-González,^{1,2,3,*#} Pilar Buil-Cosiales,^{1,2,4}
 Dolores Corella,^{1,5} Monica Bulló,^{1,6} Montserrat Fitó,^{1,7} Jesús Vioque,^{8,9}
 Dora Romaguera,^{1,10} J. Alfredo Martínez,^{1,11} Julia Wärnberg,^{1,12}
 Jose López-Miranda,^{1,13} Ramón Estruch,^{1,14}
 Aurora Bueno-Cavanillas,^{8,15} Fernando Arós,^{1,16} Josep A Tur,^{1,17}

Int J Epidemiol 2019;48:387-388o



Baseline

Martínez-González et al.

Cohort Profile: Design and methods of the PREDIMED-Plus randomized trial.

Int J Epidemiol 2019

Variable	Intervention (n=3406)	Control (n=3468)
Age (y)	65 (5)	65 (5)
% Female	48.4%	48.6%
Baseline weight (kg)	87 (13)	87 (13)
Baseline waist (cm)	108 (10)	108 (10)
Baseline BMI (kg/m ²)	32.7 (3.4)	32.7 (3.5)
% Current smoker	13.5%	11.5%
% Former smoker	41.7%	45.1%
% Diabetes	29.7%	28.7%
% High blood cholesterol	70.1%	68.5%
Total cholesterol	203 (39)	203 (40)
LDL (mg/dl)	124 (34)	124 (35)
HDL (mg/dl)	48 (12)	48 (12)
Triglycerides (mg/dl)	170 (92)	170 (90)
Glucose (mg/dl)	115 (32)	115 (31)
SBP // DBP (mmHg)	140 (17) // 81 (10)	139 (17) // 81 (10)
% Hypertension	84%	83%
17-item er-MedDiet	8.4 (2.6)	8.5 (2.7)

JAMA | Original Investigation

Effect of a Nutritional and Behavioral Intervention on Energy-Reduced Mediterranean Diet Adherence Among Patients With Metabolic Syndrome

Interim Analysis of the PREDIMED-Plus Randomized Clinical Trial

Carmen Sayón-Orea, MD; Cristina Razquin, PhD; Mónica Bulló, PhD; Dolores Corella, PhD; Montserrat Fitó, MD; Dora Romaguera, PhD; Jesús Vioque, MD; Ángel M. Alonso-Gómez, MD; Julia Wärnberg, PhD; J. Alfredo Martínez, MD; Luís Serra-Majem, MD; Ramón Estruch, MD; Francisco J. Tinahones, MD; José Lapetra, MD; Xavier Pintó, MD; Josep A. Tur, PhD; José López-Miranda, MD; Aurora Bueno-Cavanillas, MD; Miguel Delgado-Rodríguez, MD; Pilar Matía-Martín, MD; Lidia Daimiel, PhD; Vicente Martín Sánchez, MD; Josep Vidal, MD; Clotilde Vázquez, MD; Emilio Ros, MD; Miguel Ruiz-Canela, PhD; José V. Sorlí, MD; Olga Castañer, MD; Miquel Fiol, MD; Eva M. Navarrete-Muñoz, PhD; Fernando Arós, MD; Enrique Gómez-Gracia, MD; M. Angeles Zulet, PhD; Almudena Sánchez-Villegas, PhD; Rosa Casas, PhD; Rosa Bernal-López, PhD; José M. Santos-Lozano, MD; Emili Corbella, PhD; Cristina Bouzas, PhD; Ana García-Arellano, MD; Josep Basora, MD; Eva M. Asensio, PhD; Helmut Schröder, PhD; Manuel Moñino, PhD; Manoli García de la Hera, MD; Lucas Tojal-Sierra, MD; Estefanía Toledo, MD; Andrés Díaz-López, PhD; Albert Goday, MD; Jordi Salas-Salvadó, MD; Miguel A. Martínez-González, MD

JAMA Oct 15, 2019

17-item screener

negotiated goals for the intervention group

Energy-reduced MedDiet

1. Olive oil main culinary fat

2. Vegetables ≥ 2 /d

3. Fruits ≥ 3 /d

4. Red/processed meats ≤ 1 /wk

5. Butter, margarine, cream < 1 /wk

6. Sugary beverages < 1 /wk

7. Legumes ≥ 3 /wk

8. Fish / seafood ≥ 3 /wk

9. Bakery, cookies, sweets < 2 /wk

10. Tree nuts ≥ 3 /wk

11. Poultry $>$ red-processed meats

12. Sofrito ≥ 2 /wk

13. Not adding sugar to beverages

14. White bread ≤ 1 /d

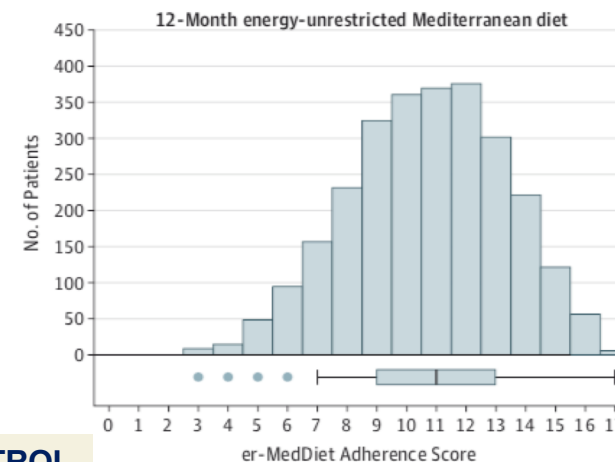
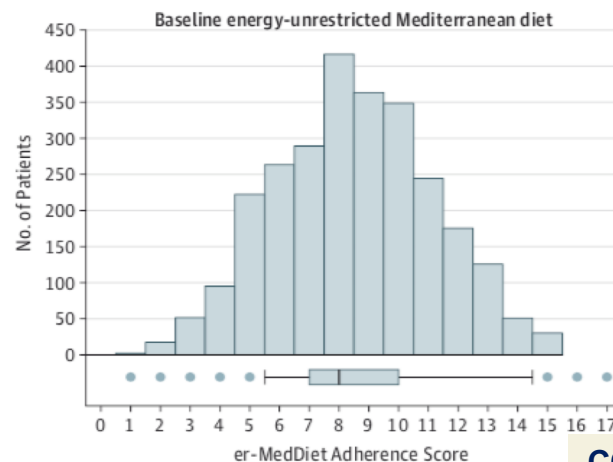
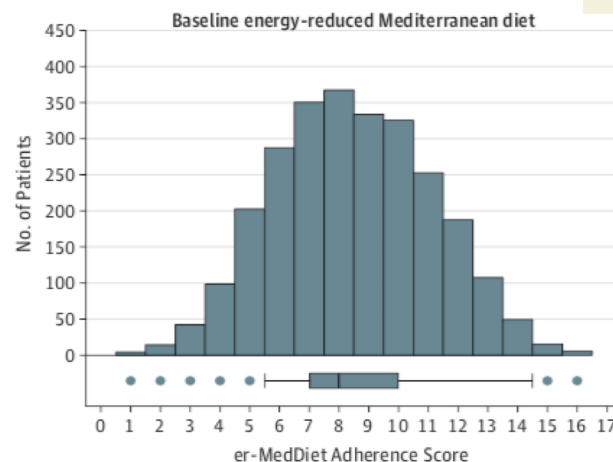
15. Whole grains ≥ 5 /wk

16. Refined grains-rice-pasta < 3 /wk

17. Wine glasses: men 2-3 /d
women 1-2 /d

EFFECTIVENESS OF THE DIETARY INTERVENTION

Figure 2. Changes in the Primary End Point in a Study of the Effect of an Energy-Reduced Mediterranean Diet (er-MedDiet) Among Adults With Metabolic Syndrome

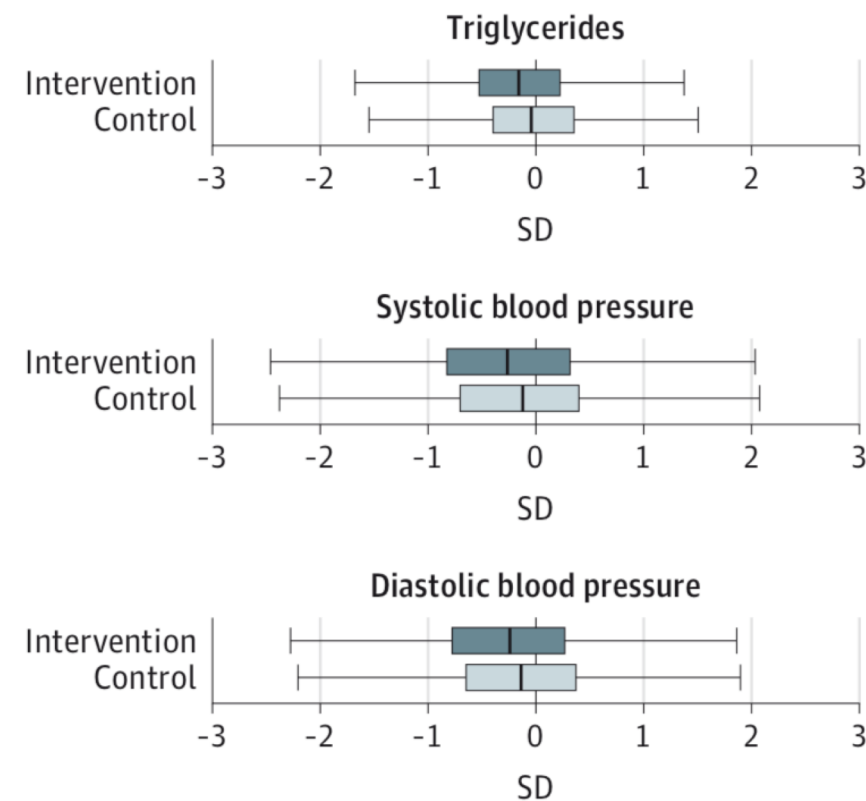
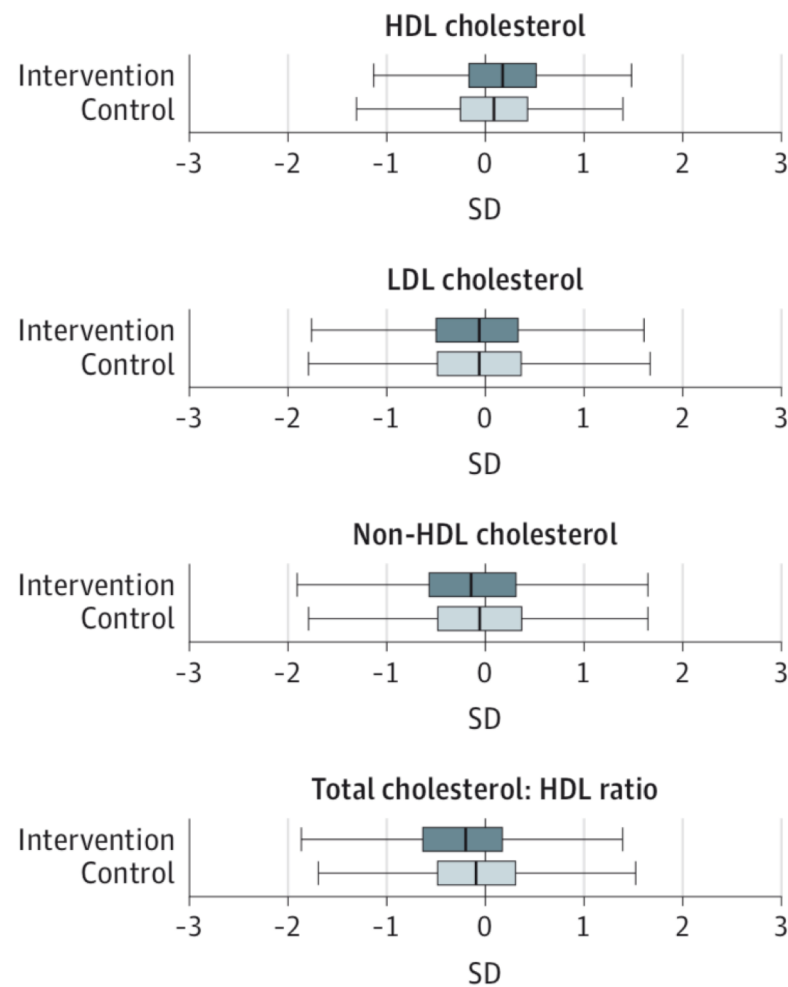
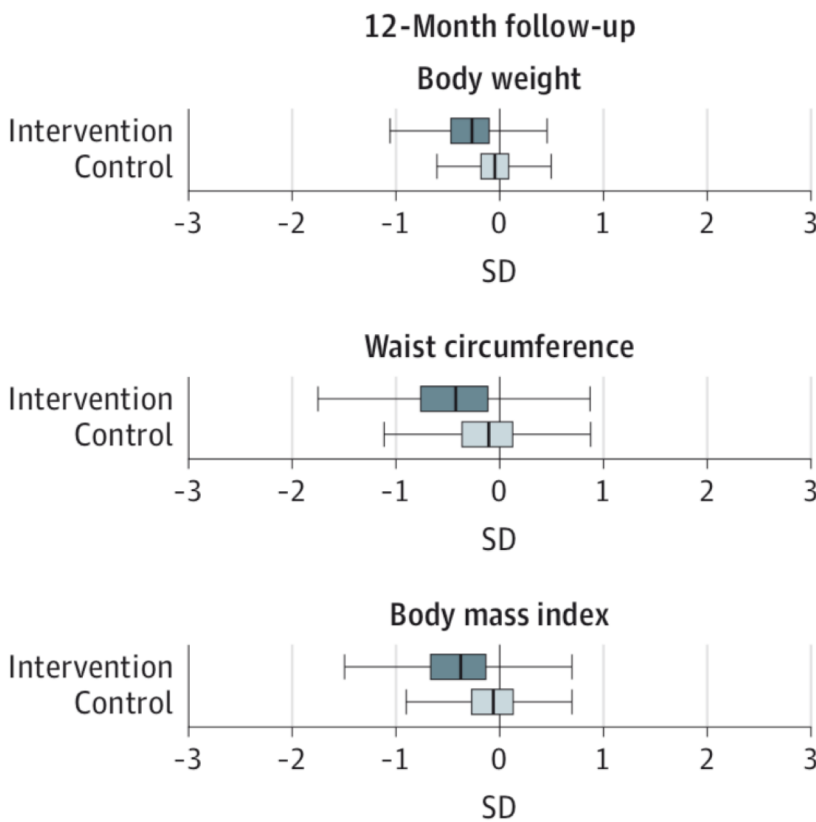


CONTROL

Horizontal box plots are shown in which the middle line represents the median er-MedDiet score (range, 0-17; higher score indicates higher adherence), boxes represent the interquartile range (IQR), whiskers extend to the most extreme

observed values with $1.5 \times$ IQR of the nearer quartile, and the dots represent observed values outside that range.

12-MO CHANGES IN RISK FACTORS



La vida es simple - 7

Dieta Mediterránea y aceite de oliva

Alcohol

Peso corporal: sobrepeso y obesidad

Sinergias e índices combinados

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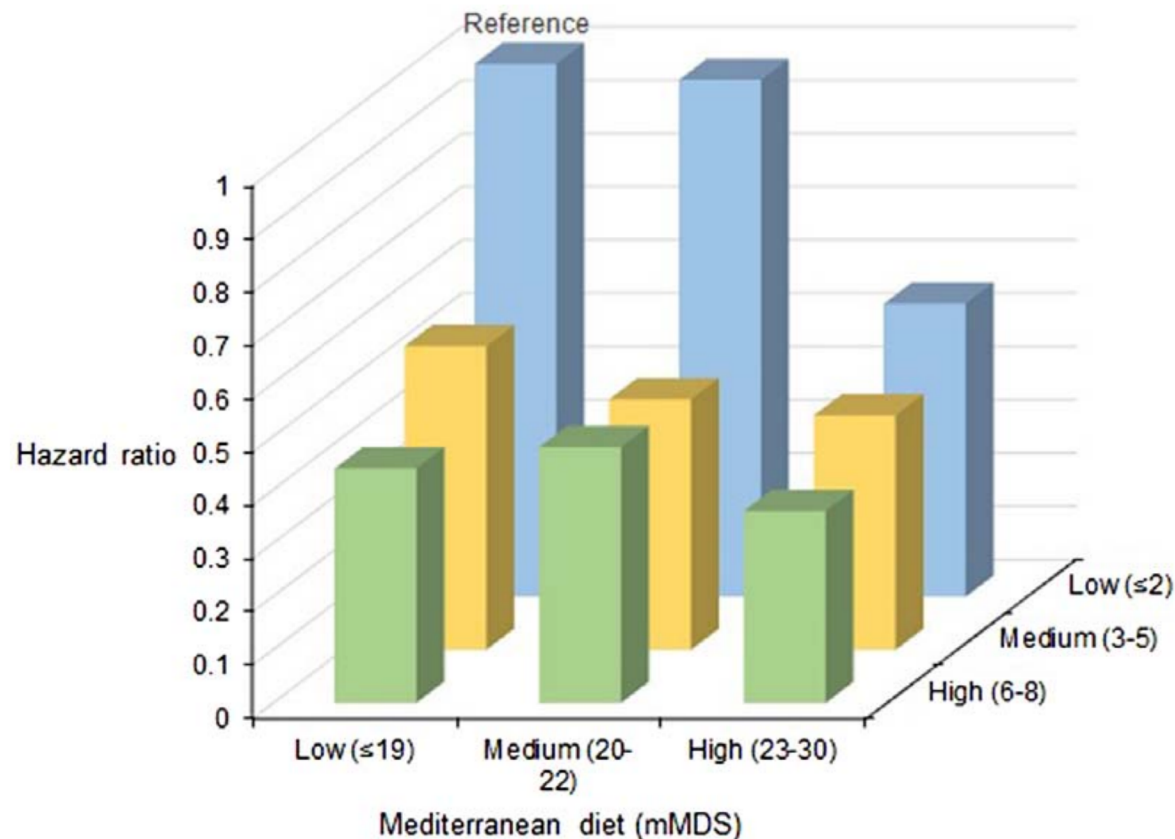
Sinergias e índices combinados

Mediterranean diet, physical activity and their combined effect on all-cause mortality: The Seguimiento Universidad de Navarra (SUN) cohort



Ismael Alvarez-Alvarez^a, Itziar Zazpe^{a,b}, Javier Pérez de Rojas^a, Maira Bes-Rastrollo^{a,c}, Miguel Ruiz-Canela^{a,c}, Alejandro Fernandez-Montero^{a,d}, María Hidalgo-Santamaría^{a,e}, Miguel A. Martínez-González^{a,c,f,*}

Prev Med. 2018;106:45-52.



- 19,467 participants from the SUN cohort
- Followed-up between Dec 1999 & Feb 2016
- High adherence to the MedDiet combined with engaging in higher amounts of PA showed a HR = 0.36 (95% CI: 0.19–0.67).

Association Between a Healthy Lifestyle Score and the Risk of Cardiovascular Disease in the SUN Cohort

Jesús Díaz-Gutiérrez,^a Miguel Ruiz-Canela,^{a,b,c} Alfredo Gea,^{a,b,c} Alejandro Fernández-Montero,^{c,d} and Miguel Ángel Martínez-González^{a,b,c,e,*}

Rev Esp Cardiol (Engl Ed). 2018;71:1001-9

Score	HR (95%CI)
0-3	1.00
4	0.58
5	0.38
6	0.42
7-10	0.22

Figure 2.

Fewer incident cardiovascular events by number of healthy habits.

95%CI, 95% confidence interval; HR, hazard ratio.

Table 1

Healthy Lifestyle Habit Score

	Score
<i>Smoking</i>	
Never smoked	1
Smoked (active and exsmoker)	0
<i>Physical activity (MET-h/wk)</i>	
Physically active (> 20 MET-h/wk)	1
Not physically active (≤ 20 MET-h/wk)	0
<i>Mediterranean diet pattern (Trichopoulou score)*</i>	
High adherence (≥ 4)	1
Low adherence (< 4)	0
<i>Body mass index</i>	
≤ 22	1
> 22	0
<i>Moderate alcohol consumption</i>	
Moderate consumption (women, 0.1-5.0 g/d; men, 0.1-10.0 g/d)	1
Abstention or high consumption (women, > 5 g/d; men > 10 g/d)	0
<i>Time spent watching television</i>	
Little time watching television (< 2 h/d)	1
Watching television ≥ 2 h/d	0
<i>Binge drinking</i>	
No binge drinking (≤ 5 alcoholic drinks at any time)	1
Binge drinking (> 5 alcoholic drinks at any time)	0
<i>Having a short afternoon nap</i>	
Short afternoon nap (0.1-0.5 h/d)	1
Not having afternoon nap or having a long nap (> 0.5 h/d)	0
<i>Time with friends</i>	
Spending time with friends (> 1 h/d)	1
Not spending time with friends (≤ 1 h/d)	0
<i>Time working</i>	
Long time working (≥ 40 h/wk)	1
Little time working (< 40 h/wk)	0

* Score from 0 to 8; higher scores indicate better adherence (alcohol consumption is excluded).

Impact of healthy lifestyle factors on life expectancies in the US population

Nurses' Health Study (1980-2014), n=78 865

Health Professionals Follow-up (1986-2014), n=44 354

34-y follow-up, 42 167 deaths

5 FACTORS

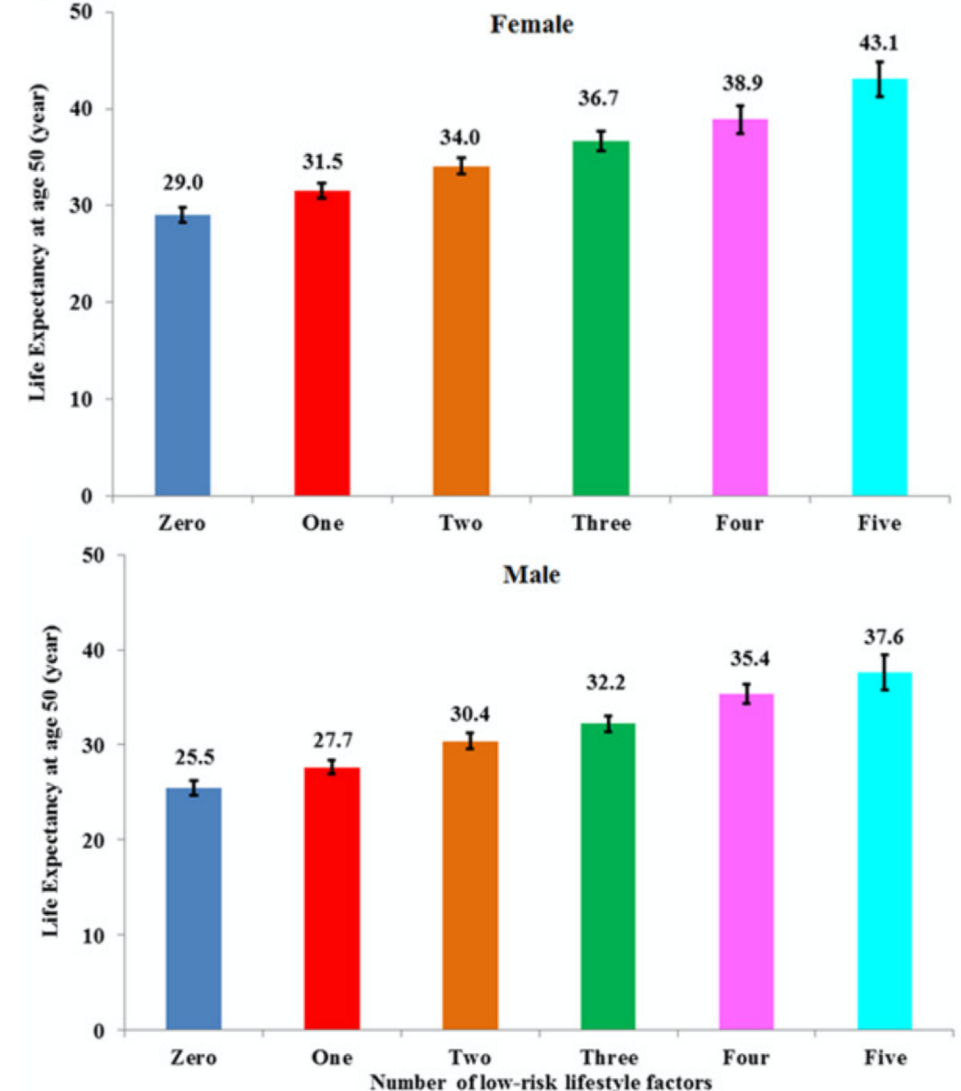
1. Never smoking
2. BMI 18.5 to 24.9 kg/m²
3. Physical activity ≥ 30 min/d
4. Moderate alcohol (♀:5-15 g/d ♂:5-30 g/d)
5. Healthy diet (+40%)

Impact of Healthy Lifestyle Factors on Life Expectancies in the US Population

Circulation 2018;138:345-55

Yanping Li, MD, PhD*, An Pan, PhD*, Dong D. Wang, MD, ScD, Xiaoran Liu, PhD, Klodian Dhana, MD, PhD, Oscar H. Franco, MD, PhD, Stephen Kaptoge, PhD, Emanuele Di Angelantonio, MD, PhD, Meir Stampfer, MD, DrPH, Walter C. Willett, MD, DrPH, and Frank B. Hu, MD, PhD

Estimated life expectancy at age 50 according to the number of low-risk factors



¡Muchas gracias!

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25 CONGRESO
SEFAP • JEREZ
25-27 mayo 2022



25 años SEFAP

De la calidad terapéutica a la calidad asistencial