

INFERTILITY AND MEDITERRANEAN DIETARY PATTERN: A NESTED CASE-CONTROL STUDY

Authors:

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Acknowledgements:

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International Institute of Restorative
Reproductive Medicine



Infertility, Miscarriage and
Gynaecologic Health Care

Saturday 26th March 2011
Health Sciences Building
University College Dublin



Universidad
de Navarra

Index

1. Introduction
2. Objectives
3. Methods
4. Results
5. Conclusions



Introduction

- 10% infertile couples worldwide
- Male and female causes:
 - Ovulatory disorders
 - Endometriosis
 - Tubal disease
 - Sperm factors
 - Psychological problems
 - Lifestyle factors: diet, smoking, physical activity, etc.
 - Others
 - Unknown





A prospective study of dairy foods intake and anovulatory infertility

J.E.Chavarro^{1,6}, J.W.Rich-Edwards^{2,4,5}, B.Rosner^{3,4,5} and W.C.Willett^{1,2,5}

¹Department of Nutrition, ²Department of Epidemiology and ³Department of Biostatistics, Harvard School of Public Health, Boston, MA, USA, ⁴Connors Center for Women's Health and Gender Biology, and ⁵Channing Laboratory, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

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Boston, MA 02115, USA

BACKGROUND: Dairy studies have been conducted in humans and their results are inconsistent. We evaluated whether intake of dairy foods was associated with anovulatory infertility and whether this association differed according to fat content. **METHODS:** We prospectively followed 18 555 married, premenopausal women without a history of infertility who attempted a pregnancy or became pregnant during an 8-year period. Diet was assessed twice during the study using food—frequency questionnaires. **RESULTS:** During follow-up, 438 women reported infertility due to an ovulatory disorder. The multivariate-adjusted relative risks (RR) [95% confidence interval (CI); *P*, trend] of anovulatory infertility comparing women consuming ≥ 2 servings per day to women consuming ≤ 1 serving per week was 1.85 (1.24–2.77; 0.002) for low-fat dairy foods. The RR (95% CI; *P*, trend) comparing women consuming ≥ 1 serving per day of high-fat dairy foods to those consuming ≤ 1 serving per week was 0.73 (0.52–1.01; 0.01). There was an inverse association between dairy fat intake and anovulatory infertility (*P*, trend = 0.05). Intakes of lactose, calcium, phosphorus and vitamin D were unrelated to anovulatory infertility. **CONCLUSIONS:** High intake of low-fat dairy foods may increase the risk of anovulatory infertility whereas intake of high-fat dairy foods may decrease this risk. Further, lactose (the main carbohydrate in milk and dairy products) may not affect fertility within the usual range of intake levels in

Low-fat dairy foods RR=1.85 (1.24-2.77)

High-fat dairy foods RR=0.73 (0.52-1.01)



ORIGINAL ARTICLE

A prospective study of dietary carbohydrate quantity and quality in relation to risk of ovulatory infertility

JE Chavarro^{1,2}, JW Rich-Edwards^{2,3,4}, BA Rosner^{2,5} and WC Willett^{1,2,4}

¹Department of Nutrition
Brigham and Women's
Women's Health
MA, USA; ⁴Depart
School of Public H

Total carbohydrate intake RR=1.91 (1.27-3.02)

Glycemic load RR=1.92 (1.26-2.92)

Glycemic index RR=1.55 (1.02-2.37)*

***only in nulliparous**

Objective: To ev
Subjects and Me
attempted a pre

a validated food-frequency questionnaire and prospectively related to the incidence of infertility due ovulatory disorder.

Results: During follow-up, 438 women reported ovulatory infertility. Total carbohydrate intake and dietary glycemic load were positively related to ovulatory infertility in analyses adjusted for age, body mass index, smoking, parity, physical activity, recency of contraception, total energy intake, protein intake and other dietary variables. The multivariable-adjusted risk ratio (RR) (95% confidence interval (CI)) of ovulatory infertility comparing the highest-to-lowest quintile of total carbohydrate intake was 1.91 (1.27–3.02). The corresponding RR (95% CI) for dietary glycemic load was 1.92 (1.26–2.92). Dietary glycemic index was positively related to ovulatory infertility only among nulliparous women. Intakes of fiber from different sources were unrelated to ovulatory infertility risk.

Conclusions: The amount and quality of carbohydrate in diet may be important determinants of ovulation and fertility in healthy women.

Protein intake and ovulatory infertility

Jorge E. Chavarro, MD, ScD; Janet W. Rich-Edwards, MPH, ScD; Bernard A. Rosner, PhD; Walter C. Willett, MD, DrPH

OBJECTIVE: The objective of the study was to evaluate whether intake of protein from animal and vegetable sources was associated with ovulatory infertility.

STUDY DESIGN: A cohort study of women who reported ovulatory infertility were followed up for 10 years. The incidence of ovulatory infertility was compared between women in the lowest quintile of animal protein intake and those in the highest quintile of animal protein intake.

RESULTS: During follow-up, 438 women reported ovulatory infertility. The multivariate-adjusted relative risk (RR) (95% confidence interval [CI]; P for trend) of ovulatory infertility comparing the highest to the lowest quintile of animal protein intake was 1.39 (1.01 to 1.90; 0.03). The multivariate-adjusted relative risk (RR) (95% confidence interval [CI]; P for trend) of ovulatory infertility comparing the highest to the lowest quintile of vegetable protein intake was 0.78 (0.54 to 1.12; 0.15).

CONCLUSION: Replacing animal sources of protein with vegetable sources of protein may reduce ovulatory infertility risk.

Key words: diet, epidemiology, infertility, ovulation, protein

Dietary fatty acid intakes and the risk of ovulatory infertility¹⁻³

Jorge E Chavarro, Janet W Rich-Edwards, Bernard A Rosner, and Walter C Willett

ABSTRACT

Background: Pharmacologic activation of the peroxisome proliferator-activated receptor γ (PPAR- γ) improves ovulatory function.

Objectives:

Design:

Results:

Conclusion:

Keywords:

Abbreviations:

Introduction:

Discussion:

Conclusion:

References:

Footnotes:

Address correspondence to:

Manuscript received:

Manuscript accepted:

Copyright:

Reprints:

Supplemental material:

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may have an important role in the etiology of some forms of infertility. Factors known to increase insulin resistance, such as increased body weight and decreased physical activity, have

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Trans-unsaturated fats instead of:

carbohydrates RR=1.73 (1.09-2.73)

monounsaturated fats RR=2.31 (1.09-4.87)

n-6 polyunsaturated fats RR=1.79 (1.12-2.89)

ciated with a 73% greater risk of ovulatory infertility after adjustment for known and suspected risk factors for this condition [relative risk (RR) = 1.73; 95% CI: 1.09, 2.73]. Obtaining 2% of energy intake from *trans* fats rather than from n-6 polyunsaturated fats was associated with a similar increase in the risk of ovulatory infertility (RR = 1.79; 95% CI: 1.11, 2.89). In addition, obtaining 2% of energy from *trans* fats rather than from monounsaturated fats was associated with a more than doubled risk of ovulatory infertility (RR = 2.31; 95% CI: 1.09, 4.87).

Conclusion: *trans* Unsaturated fats may increase the risk of ovulatory infertility when consumed instead of carbohydrates or unsaturated fats commonly found in nonhydrogenated vegetable oils. *Am J Clin Nutr* 2007;85:231-7.

metabolic and endocrine characteristics in women with PCOS (23). Conversely, the consumption of *trans* fats (commonly found in commercially fried and baked products) instead of other macronutrients has been associated with greater inflammation (21, 24), insulin resistance (25), and risk of type 2 diabetes (22). Thus, we decided to test the hypotheses that *trans* unsaturated fatty acids (TFAs) increase the risk of ovulatory infertility whereas polyunsaturated fatty acids (PUFAs) reduce this risk.

SUBJECTS AND METHODS

Subjects

Use of multivitamins, intake of B vitamins, and risk of ovulatory infertility

Jorge E. Chavarro, M.D., Sc.D.,^a Janet W. Rich-Edwards, Sc.D., M.P.H.,^{b,c,d}
Bernard A. Rosner, Ph.D.,^{d,e} and Walter C. Willett, M.D., Dr.P.H.^{a,c,d}

^a Department of Nutrition, Harvard School of Public Health, Boston; ^b Connors Center for the Study of Women's Health, Brigham and Women's Hospital; ^c Department of Medicine, Harvard Medical School, Boston; ^d Department of Biostatistics, Harvard School of Public Health, Boston; ^e Department of Epidemiology, Harvard School of Public Health, Boston

3-5 tablets/week RR=0.69 (0.51-0.95)

6+ tablets/week RR=0.59 (0.46-0.75)

Objective: To examine whether use of multivitamins and intake of specific nutrients in multivitamins is associated with ovulatory infertility.

Design: A prospective cohort study.

Setting: The Nurses' Health Study II.

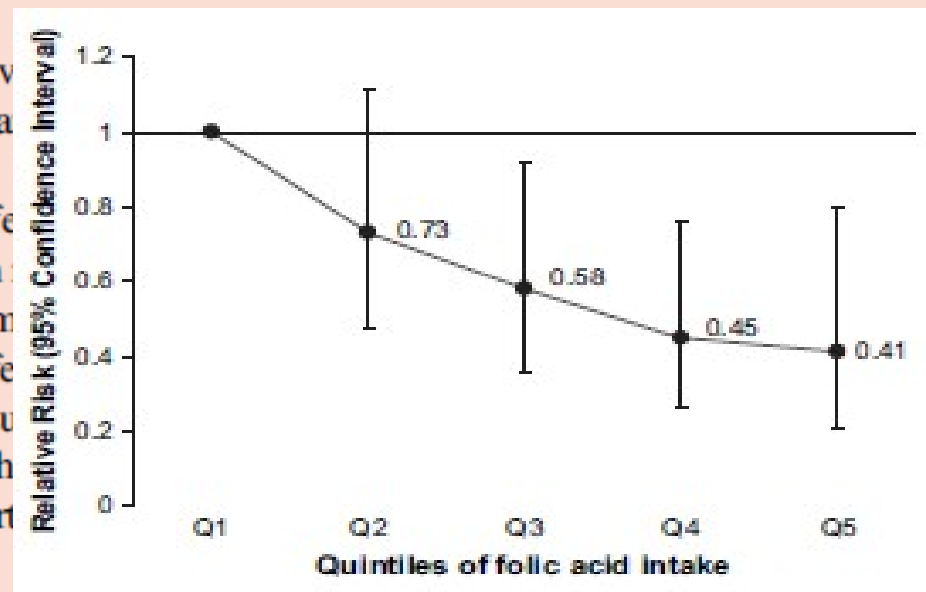
Patient(s): Eighteen thousand five hundred fifty-five women aged 25-42 years, free of infertility who attempted a pregnancy or became pregnant during the study period.

Intervention(s): None, observational study.

Main Outcome Measure(s): Incident reports of infertility.

Result(s): During 8 years of follow-up, 438 women reported incident infertility. There was an inverse association between frequency of multivitamin use and risk of ovulatory infertility. The relative risk (95% confidence interval) of ovulatory infertility for women consuming three to five tablets per week or less, 0.69 (0.51, 0.95) for women consuming six or more tablets per week, when compared with women consuming one or fewer tablets per week (P, trend < .001). Folic acid appeared to explain part of the association between multivitamin use and risk of ovulatory infertility.

Conclusion(s): Regular use of multivitamin supplements may decrease the risk of ovulatory infertility. (Fertil Steril® 2008;89:668-76. ©2008 by American Society for Reproductive Medicine.)



Introduction

Infertility and diet:

- Low-fat dairy food
- Carbohydrate intake/Dietary glycemic load
- Animal proteins
- Fatty acids (trans-unsaturated)

Hyperglucemia/Increase insulin resistance



Ovulatory dysfunction

- Low vitamin supplements (folic acid, B6)



Adherence to Mediterranean diet and health status: meta-analysis

Francesco Sofi, researcher in clinical nutrition,^{1,2,5} Francesca Cesari, researcher,¹ Rosanna Abbate, full professor,¹ Salvatore Strazzullo, full professor,^{1,5} Alessandra Giallari, full professor,^{1,5} Giovanni de Gaetano, full professor,^{1,5} and the European Concerted Action Project (EUCAP) Group³

¹Department of Medical and Surgical Critical Care, Thrombosis Centre, University of Florence, Viale Morgagni 85, 50134 Florence, Italy

²Regional Agency for Nutrition, Azienda Ospedaliero-Universitaria Careggi, Florence

³Don Carlo Gnocchi Foundation, Onlus IRCCS, Impruneta, Florence

⁴Department of Clinical Pathophysiology, Unit of Clinical Nutrition, University of Florence

⁵Centro Interdipartimentale per la

ABSTRACT

Objectives

cohort

adhere

inciden

setting

Design

meta-analysis

Data sources

English and non-English publications in PubMed, Embase, Web of Science, and the Cochrane Central Register of Controlled Trials from 1966 to 30 June 2008.

↓ Overall Mortality

↓ Cardiovascular disease mortality

↓ Incidence of cancer

↓ Incidence of degenerative diseases

meta-analysis of prospective cohort studies.

Data sources English and non-English publications in PubMed, Embase, Web of Science, and the Cochrane Central Register of Controlled Trials from 1966 to 30 June 2008.

status and a better diet from the seven different populations. The Mediterranean diet was the main diet on the occurrence of chronic degenerative diseases. However, research interest in this field over the past years has been focused on estimating adherence to the whole Mediterranean diet rather than analysing the individual components of the dietary pattern in relation to the health status of the

Cite this as: *BMJ* 2008;337:a1344
doi:10.1136/bmj.a1344

The preconception Mediterranean dietary pattern in couples undergoing in vitro fertilization/ intracytoplasmic sperm injection treatment increases the chance of pregnancy

Marijana Vujkovic, B.Sc.,^a Jeanne H. de Vries, Ph.D.,^g Jan Lindemans, Ph.D.,^b Nick S. Macklon, Ph.D.,^{a,h,i} Peter J. van der Spek, Ph.D.,^c Eric A. P. Steegers, Ph.D.,^a and Régine P. M. Steegers-Theunissen, Ph.D.^{a,d,e,f}

Fertility and Sterility® Vol. 94, No. 6, November 2010

Objective: To investigate associations between preconception dietary patterns and IVF/intracytoplasmic sperm injection (ICSI) outcomes validated by biomarkers of the homocysteine pathway.

Design: Observational prospective study.

Setting: A tertiary

Patient(s): One h

Intervention(s): N

Main Outcome M

vitamin B6, homo

Result(s): In won

(variation explained

This study demonstrates that Dutch subfertile couples with high adherence to the “Mediterranean” dietary pattern have a 40% increased probability of achieving pregnancy after IVF/ICSI treat-

intakes of snacks, meats, and mayonnaise, and positively correlated with red blood cell folate ($\beta = 0.07$). The “Mediterranean” dietary pattern (variation explained 9.1%), that is, high intakes of vegetable oils, vegetables, fish, and legumes and low intakes of snacks, was positively correlated with red blood cell folate ($\beta = 0.13$), and vitamin B6 in blood ($\beta = 0.09$) and follicular fluid ($\beta = 0.18$). High adherence by the couple to the “Mediterranean” diet increased the probability of pregnancy, odds ratio 1.4 (95% confidence interval 1.0–1.9).

Conclusion(s): A preconception “Mediterranean” diet by couples undergoing IVF/ICSI treatment contributes to the success of achieving pregnancy. (Fertil Steril® 2010;94:2096–101. ©2010 by American Society for Reproductive Medicine.)

Key Words: Nutrition, Mediterranean diet, folate, vitamin B6, homocysteine, subfertility, reproduction

Index

1. Introduction

2. Objective

3. Methods

4. Results

5. Conclusions





Objective

To investigate associations between a Mediterranean or a Western dietary pattern and difficulty for getting pregnant in a Mediterranean cohort of university graduates (the SUN Project)



Index

1. Introduction
2. Objectives
- 3. Methods**
4. Results
5. Conclusions





Methods

Nested case-control study in the SUN (Seguimiento Universidad de Navarra) cohort:

- Dynamic, multipurpose, prospective cohort study (from 1999)
- University graduates in Spain
- Bienial questionnaires

Published by Oxford University Press on behalf of the International Epidemiological Association *International Journal of Epidemiology* 2006;35:1417–1422
© The Author 2006; all rights reserved. Advance Access publication 22 October 2006 doi:10.1093/ije/dyl223

COHORT PROFILE

Cohort profile: The 'Seguimiento Universidad de Navarra' (SUN) study

María Seguí-Gómez,* Carmen de la Fuente, Zenaida Vázquez, Jokin de Irala and Miguel A Martínez-González

Methods

Nested case-control analysis:

- Cases: n=485
 - ☐ female participant (20-45 years)
 - ☐ Having consulted doctor for difficulty to get pregnant
- Controls: n=1670
 - ☐ female participant (20-45 years)
 - ☐ Not having consulted doctor for difficulty to get pregnant
 - ☐ ≥ 1 child
- Matched on age and follow-up time



Methods

Nested case-control analysis:

- Baseline questionnaire:
 - 136-item semiquantitative food-frequency questionnaire
 - Non-dietary variables
- Follow-up questionnaire:
 - “Have you consulted a physician due to difficulty to get pregnant?”



Methods

Nested case-control analysis:

- Principal component analysis: Food Patterns (FP)
 - ❑ quartiles
- Conditional logistic regression models
 - ❑ Outcome: having consulted for difficulty to get pregnant.
 - ❑ Potential confounders: FP, # children, BMI, smoking, alcohol, total energy intake, vitamin supplements, intake of plant protein, animal proteins, trans-fat, fiber.

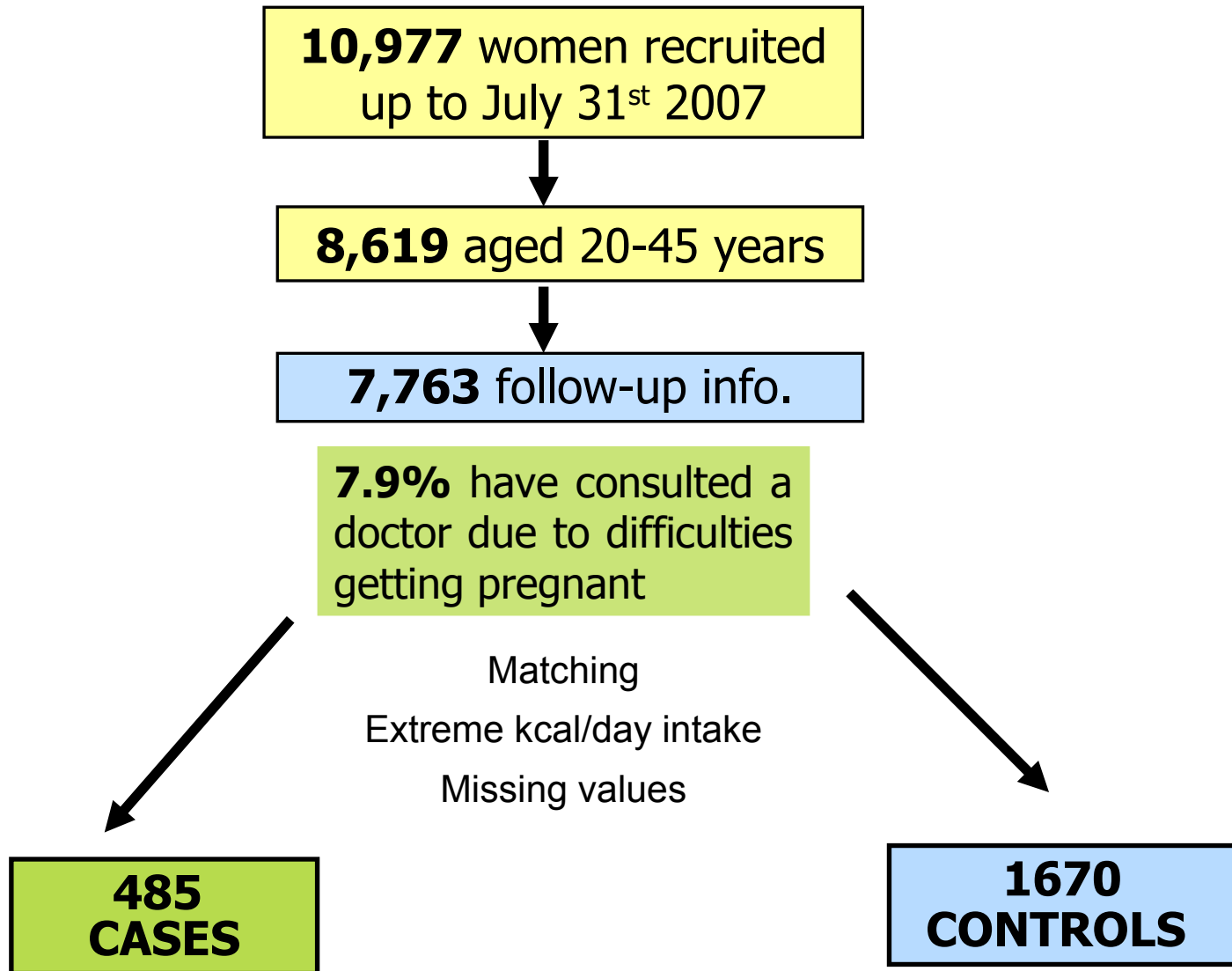


Index

1. Introduction
2. Objectives
3. Methods
- 4. Results**
5. Conclusions



Results



Results

Baseline characteristics:

	Controls (n=1670)	Cases (n=485)
Age, years	33.1 (5.3)	31.3 (4.4)
Body mass index, kg/m²	22.1 (2.9)	21.6 (2.7)
Children, n	1.2 (1.0)	0.2 (0.5)
Smoking (%)		
Past smokers	26.5	24.3
Current smokers	23.2	24.3
Physical activity, METs-h/week	19.7 (17.1)	21.1 (18.9)
Alcohol intake, g/day	3.1 (4.6)	4.2 (6.0)
Coffee consumption, servings/day	1.2 (1.2)	1.2 (1.2)

Results

Baseline characteristics:

	Controls (n=1670)	Cases (n=485)
Total energy intake, kcal/day	2356 (552)	2279 (567)
Total fat intake, % energy intake	37.9 (6.2)	37.5 (6.6)
SFA, % energy intake	12.9 (3.0)	12.8 (3.0)
MUFA, % energy intake	16.3 (3.6)	16.1 (3.7)
PUFA, % energy intake	5.2 (1.6)	5.2 (1.7)
tFA, % energy intake	0.4 (0.2)	0.4 (0.2)
Ion intake, mg/day	17.0 (5)	16.0 (5)
Plant protein, g/day	29.0 (7)	29.0 (7)
Animal protein, g/day	76.0 (18)	74.0 (19)
Dietary fiber, g/day	26.0 (10)	27.0 (10)
Vitamin supplements consumption (%)	24.3	20.4

Results

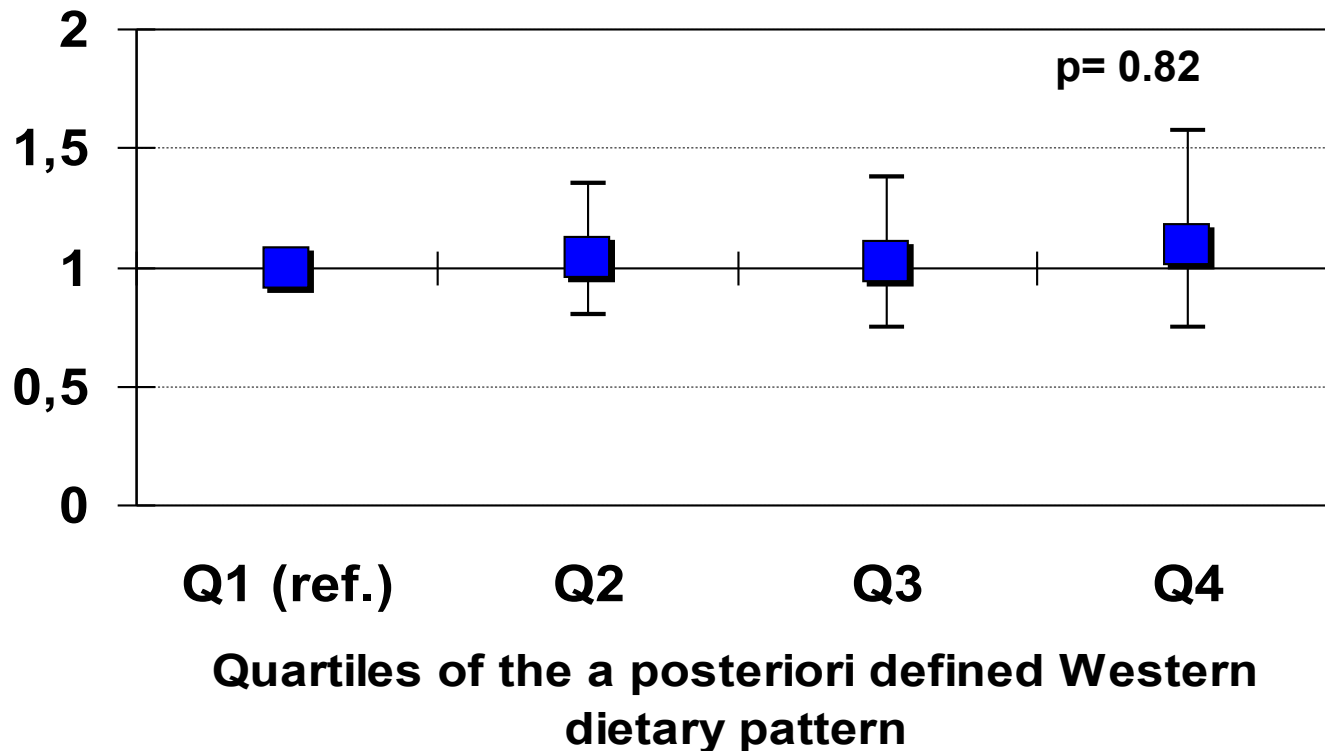
Food Patterns in the SUN Project

Food Group	Mean daily intake (g/d), (SD)	Factor 1 'Western'	Factor 2 'Mediterranean'
Fast food	45 (34)	0,68	
Potatoes	51 (43)	0,60	
Unprocessed red meat	75 (43)	0,48	
Processed meat	45 (29)	0,46	
Whole-fat dairy products	207 (199)	0,33	
Eggs	23 (16)	0,32	
Refined grains	78 (54)	0,32	
Sauces	3 (4)	0,30	
Vegetables	547 (316)	-	0,66
Fruits	350 (290)	-	0,52
Fish	96 (60)	-	0,51
Poultry	48 (32)	-	0,42
Low-fat dairy products	255 (247)	-	0,42
Olive oil	17 (14)	-	0,34
Whole grains	14 (30)	-	0,31

* Varimax rotated factors are displayed. Factor loadings <0.3 were omitted for simplicity

Results

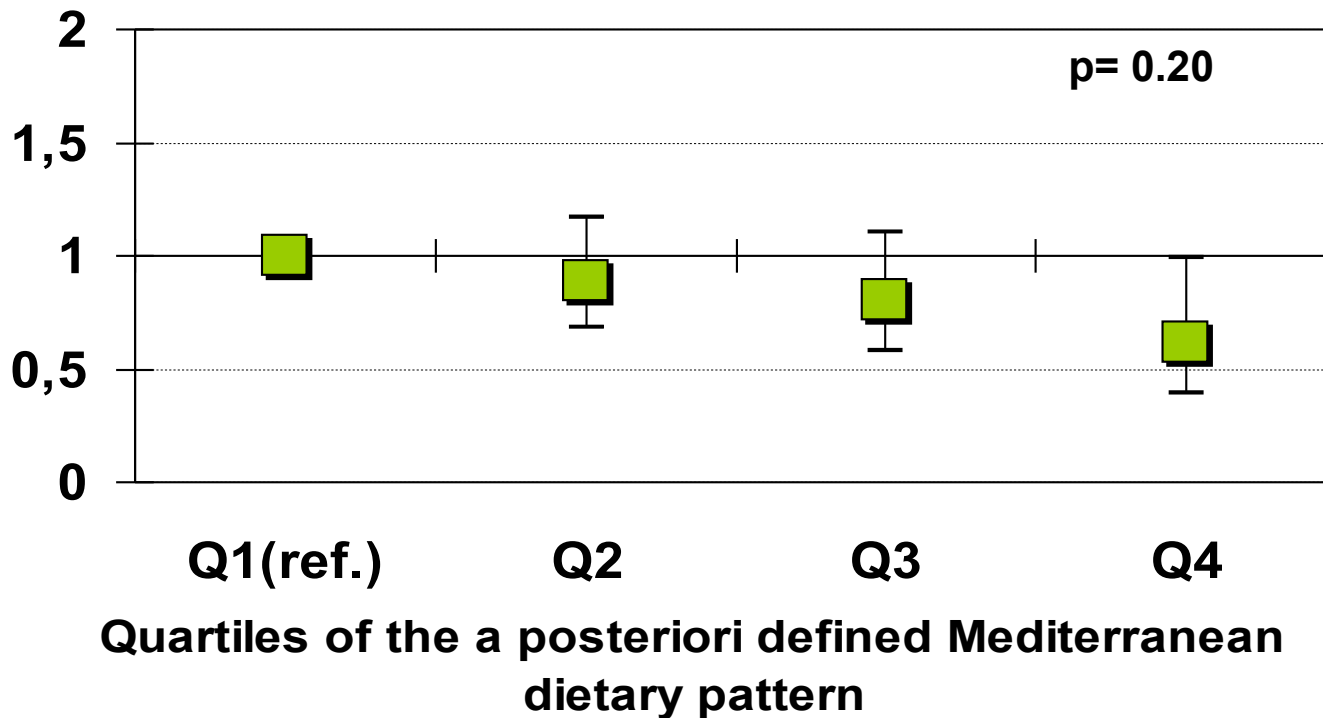
Western dietary pattern: OR (95% CI) for consulting for difficulty to get pregnant



Adjusted for # children, BMI, smoking, alcohol, total energy intake, vitamin supplements, intake of plant protein, animal proteins, trans-fat, fiber

Results

Mediterranean dietary pattern: OR (95% CI) for consulting for difficulty to get pregnant



Adjusted for # children, BMI, smoking, alcohol, total energy intake, vitamin supplements, intake of plant protein, animal proteins, trans-fat, fiber

Index

1. Introduction
2. Objectives
3. Methods
4. Results
- 5. Conclusions**





Conclusion

- Low rate of reported difficulty for getting pregnant in the SUN cohort
- A higher adherence to the Mediterranean dietary pattern might have a protective effect on fertility
- **Further studies are needed** to verify the benefits of the Mediterranean diet on fertility



INFERTILITY AND MEDITERRANEAN DIETARY PATTERN: A NESTED CASE-CONTROL STUDY

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Acknowledgements:

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Infertility, Miscarriage and
Gynaecologic Health Care

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Questionnaire "0" (SUN study)

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Página ... 5 ...

NÚMERO

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

En este cuadro debes repetir en las 6 casillas superiores el número que figura en el cuadro de la 1ª página y a continuación marcarlo igual que lo has hecho anteriormente.

ENCUESTA DIETÉTICA

Por favor, marca una única opción para cada alimento.

Para cada alimento, marca el recuadro que indica la frecuencia de consumo por término medio durante el año pasado. Se trata de tener en cuenta también la variación verano/invierno. Por ejemplo si tomas helados 4 veces/semana sólo durante los 3 meses de verano, el uso promedio al año es 1/semana

CONSUMO MEDIO DURANTE EL AÑO PASADO

	NUNCA O CASI NUNCA	AL MES 1 - 3	A LA SEMANA			AL DÍA			
			1	2 - 4	5 - 8	1	2 - 3	4 - 6	8 +
LACTEOS									
Leche entera (1 taza, 200 cc)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Leche semidesnatada (1 taza, 200 cc)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Leche desnatada (1 taza, 200 cc)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Leche condensada (1 cucharada)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Nata o crema de leche (1/2 taza)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Batidos de leche (1 vaso, 200 cc)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Yogurt entero (1, 125 gr)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Yogurt descremado (1, 125 gr)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Petit suisse (1, 100 gr)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Requesón o cuajada (1/2 taza)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Queso en porciones o cremoso (1, porción)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Otros quesos: curados, semicurados (Manchego, Bola, Emmental...) (50 gr)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Queso blanco o fresco (Burgos, ostra...) (50 gr)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Natillas, flan, puding (1 taza, 200 cc)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Helados (uno)	☐	☐	☐	☐	☐	☐	☐	☐	☐

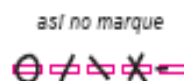
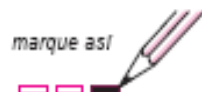
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Por favor, marca una única opción para cada alimento.

	NUNCA O CASI NUNCA	AL MES 1 - 3	A LA SEMANA			AL DÍA			
			1	2 - 4	5 - 8	1	2 - 3	4 - 6	8 +
PESCADOS									
Un plato o ración de 100-150 gr, excepto cuando se indica otra cosa									
Huevos de gallina (uno)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Pollo o pavo CON piel	☐	☐	☐	☐	☐	☐	☐	☐	☐
Pollo o pavo SIN piel	☐	☐	☐	☐	☐	☐	☐	☐	☐
Carne de ternera o vaca	☐	☐	☐	☐	☐	☐	☐	☐	☐
Carne de cerdo	☐	☐	☐	☐	☐	☐	☐	☐	☐
Carne de cordero	☐	☐	☐	☐	☐	☐	☐	☐	☐
Conejo o liebre	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hígado	☐	☐	☐	☐	☐	☐	☐	☐	☐
Otras vísceras (sesos, corazón, mollejas)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Jamón serrano o paletilla	☐	☐	☐	☐	☐	☐	☐	☐	☐
Jamón York, jamón cocido (1 loncha)	☐	☐	☐	☐	☐	☐	☐	☐	☐



CUESTIONARIO SOBRE INFERTILIDAD (PROYECTO DNI)



1. Por favor, indique la duración aproximada de su menstruación (cuántos días en total le dura la regla):

Días 0 1 2 3 4 5 6 7 8 9 10 o más

2. Por favor, indique la duración aproximada de sus ciclos menstruales (número de días que pasan en total desde que empieza la regla hasta el día anterior a la siguiente regla):

Días

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

Fecha de cumplimentación

Día		Mes		Año
0	0	0	0	0
1	1	1	1	
2	2		2	
3	3		3	
4			4	
5			5	
6			6	
7			7	7
8			8	8
9			9	9

ID

Día			Mes			Año		
0	0	0	0	0	0	0	0	0
1	1	1	1	1	1			
2	2	2	2	2	2			
3	3	3	3	3	3			
4	4	4	4	4	4			
5	5	5	5	5	5			
6	6	6	6	6	6			
7	7	7	7	7	7			
8	8	8	8	8	8			
9	9	9	9	9	9			

3. Por favor, indique si a lo largo de su vida le ha diagnosticado el médico de alguna de las siguientes enfermedades

	SÍ	NO	Fecha aproximada	
			Mes	Año
Enfermedad inflamatoria pélvica				
Endometriosis				
Trastornos hormonales del ciclo menstrual				
Síndrome de Ovario poliquístico (múltiples quistes en los ovarios, que pueden alterar la producción de hormonas)				
Uno o varios quistes (menos de 10) en un ovario				
Problemas en las trompas (adherencias, obstrucción, etc)				
Miomas en el útero				
Adenomiosis (presencia de glándulas endometriales en la capa muscular del útero)				
Displasia o cáncer del cuello del útero que ha necesitado algún tratamiento/intervención				
Cirugía abdominal				

Por favor, si lo conoce, indique el motivo de la cirugía:

Infección y/o tratamiento por:

Clamidia

Estreptococo del grupo B

Gardnerella vaginalis

Gonorrea

Herpes genital

Sífilis

Virus del papiloma humano (verruga genital)

Virus del sida (VIH)

Alguna alteración anatómica o malformación en el útero (tabiques, pólipos, etc)

Hiperprolactinemia (niveles altos de la hormona prolactina)

Otra (por favor, especifique):

4. Señale cuántos hijos nacidos vivos ha tenido

☐ Ninguno

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5 o más

Por favor indique la(s) fecha(s) aproximada(s):

1. Mes Año 2. Mes Año 3. Mes Año 4. Mes Año 5. Mes Año

5. ¿Ha tenido alguna vez en su vida algún aborto?

☐ Ninguno

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5 o más

Por favor indique la(s) fecha(s) aproximada(s):

1. Mes Año 2. Mes Año 3. Mes Año 4. Mes Año 5. Mes Año

6. ¿Ha tenido alguna vez en su vida algún embarazo ectópico (embarazo fuera del útero)?

☐ Ninguno

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5 o más

Por favor indique la(s) fecha(s) aproximada(s):

1. Mes _____ Año _____	2. Mes _____ Año _____	3. Mes _____ Año _____	4. Mes _____ Año _____	5. Mes _____ Año _____
---------------------------	---------------------------	---------------------------	---------------------------	---------------------------

7. ¿Ha utilizado algún tratamiento hormonal o algún anticonceptivo hormonal?

☐ No

☐ Si

Si la respuesta es afirmativa especifique cuál y durante cuanto tiempo

FÁRMACO	Nº veces al día Y DOSIS	Duración (nº de meses en TOTAL)
1.		
2.		
3.		

8. ¿Ha utilizado alguna vez un dispositivo intrauterino (DIU)?

☐ No

☐ Si

Si la respuesta es afirmativa especifique:

Nº de meses en total
que usó el DIU: _____

Fecha en que dejó
de usar el DIU: Mes _____ Año _____

9. Las siguientes preguntas se refieren a otras pruebas que pueden realizarse cuando una pareja consulta al médico por dificultad para lograr un embarazo.

(Dobla por esta línea)

¿Le han realizado a usted alguna de estas pruebas?	NO	SÍ	Resultado			Fecha aproximada	
			Normal	Alterado	Pendiente	Mes	Año
Análisis de sangre general: _____	☐	☐	☐	☐	☐		
• hemograma, glucosa, colesterol, transaminasas, etc... _____	☐	☐	☐	☐	☐		
• marcadores para descartar infecciones (clamidia, gonococo, herpes, HPV, etc.) _____	☐	☐	☐	☐	☐		
• otros (por favor, especifique): _____	☐	☐	☐	☐	☐		
Análisis de sangre unos días después de la menstruación, para valorar la fertilidad (estudio de hormonas) _____	☐	☐	☐	☐	☐		
Análisis de sangre unos días antes de la menstruación, para valorar la fertilidad (estudio de hormonas) _____	☐	☐	☐	☐	☐		
Ecografía _____	☐	☐	☐	☐	☐		
Biopsia del endometrio (toma de una muestra del interior del útero) _____	☐	☐	☐	☐	☐		
Test postcoital (toma de una muestra del interior de la vagina y/o cuello uterino tras una relación sexual) _____	☐	☐	☐	☐	☐		
Histerosalpingografía (introducción de un líquido por la vagina para ver las trompas y el útero en un monitor o radiografía) _____	☐	☐	☐	☐	☐		
Laparoscopia (introducción de un tubo a través de varios orificios del abdomen para ver su interior) _____	☐	☐	☐	☐	☐		
Estudios de anticuerpos contra los espermatozoides o el semen _____	☐	☐	☐	☐	☐		
Otra prueba (por favor, especifique): _____	☐	☐	☐	☐	☐		

10. ¿Le han realizado alguna prueba a su pareja? (Por favor, no responda a esta pregunta si sabe que su pareja no quiere informarnos sobre ello)

☐ No

☐ Sí, y los resultados son normales

☐ Sí, y al menos uno de los resultados está alterado

☐ Sí, pero todavía no le han comunicado los resultados

11. ¿Les ha dicho el médico que no hay nada alterado y que esperen unos meses a ver si se queda embarazada, antes de iniciar algún tratamiento?

☐ No

☐ Sí

INFERTILIDAD (PROYECTO DNI) CUESTIONARIO DE CODIFICACIÓN

FECHAS DE DIAGNÓSTICOS MÉDICOS

Rellene exclusivamente a lápiz
Borre completamente las marcas erróneas
No escriba sobre el margen derecho

No doble ni arrugue la hoja
Marque correctamente las casillas
Marque una sola casilla por respuesta

Marque así



Así no marque



use lápiz

ID					
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

EIP	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006
SEP	2007
OCT	2008
NOV	2009
DIC	2010

ENDOMETRIOSIS	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006
SEP	2007
OCT	2008
NOV	2009
DIC	2010

TRASTORNOS HORMONALES	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006
SEP	2007
OCT	2008
NOV	2009
DIC	2010

SOP	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006
SEP	2007
OCT	2008
NOV	2009
DIC	2010

QUISTE	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006
SEP	2007
OCT	2008
NOV	2009
DIC	2010

TROMPAS	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006
SEP	2007
OCT	2008
NOV	2009
DIC	2010

MIOMAS	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006

ADENOMIOSIS	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006

C.A. CERVIX	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006

CIRUGÍA ABDOMINAL	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006

MOTIVO CIRUGÍA	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006

CLAMIDIA	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006

ESTREPTOCOCCO B	
MES	AÑO
ENE	1999
FEB	2000
MAR	2001
ABR	2002
MAY	2003
JUN	2004
JUL	2005
AGO	2006