



ASSISTANCE
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DE PARIS

Nutrition et sédentarité

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Service d'Oncologie Médicale CHU Avicenne &
UMR 577 Epidémiologie Nutritionnelle

Inserm


Institut national
de la santé et de la recherche médicale



Une synthèse des études épidémiologiques

- ⊙ Un index de masse corporelle (IMC) élevé est un facteur de risque de cancer du sein
- ⊙ Un IMC élevé serait un facteur de mauvais pronostic
- ⊙ Un poids de naissance élevé est un facteur de risque de cancer du sein
- ⊙ L'exercice physique aurait un rôle protecteur



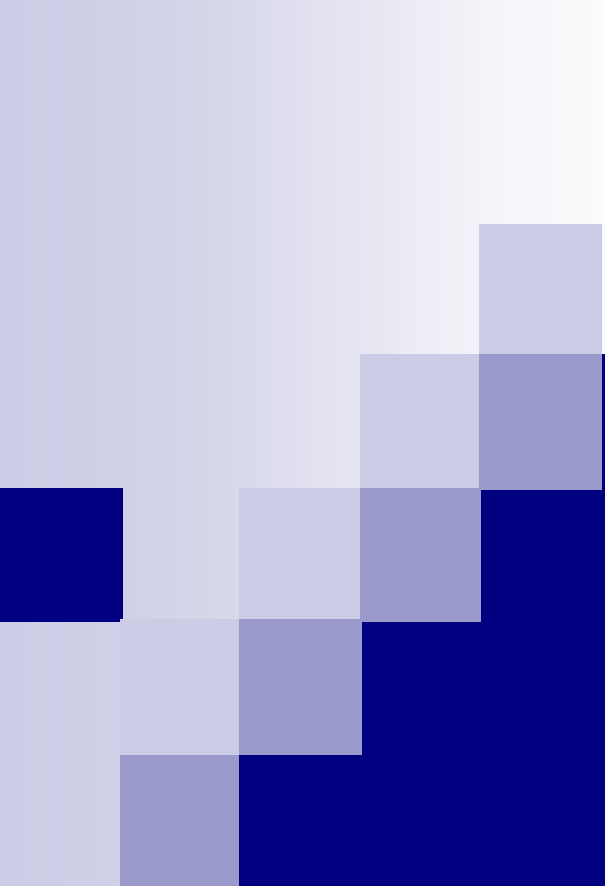
**CES FACTEURS DE RISQUE SONT LIES
A L'HYPERINSULINISME!**

Etude DREES-INSERM 2004

- Seulement 20% des femmes sans séquelles à 2 ans (54.5% assez à très gênantes)
- Facteurs différents selon l'âge
 - **Entre 50 et 65 ans: variables liées au traitement**
 - **Après 65 ans et avant 50 : variables socio-démographiques**
 - Niveau d'études
 - Soutien psycho-affectif
- Cancer du sein surreprésenté dans chez les personnes ayant été l'objet de rejet ou discrimination dans la sphère sociale (36%) et dans la sphère familiale (42%)
- Augmentation significative du risque de sortie d'emploi
- Baisse de revenus chez 26% des patients

Spécificités de la population <35 ans

- Plus d'indications de chimiothérapie adjuvante
- Plus de BRCA 1-2
- Hormonothérapie par tamoxifène
 - **Risque de surpoids plus élevé qu'avec les IA (ATAC)**
 - **Hypertriglycéridémies**
- Espérance de vie théorique de plusieurs décennies
- Contexte psychosocial
 - **Activité professionnelle**
 - **Jeunes enfants**
 - **Familles recomposées ou monoparentales**



Le surpoids après cancer du sein

Quelles conséquences ?

Faut-il attendre un bénéfice de son contrôle ?

Facteurs de risque (essai WHEL)

- Chimiothérapie associée au surpoids
 - **OR = 1.65**
- Gain $\geq 5\%$ du poids initial chez 45% des femmes sous chimiothérapie
- Seulement 10% retrouvent leur poids initial
- Plus le surpoids est important, plus la probabilité de retour au poids initial est faible

Original Article

 Body weight change in women receiving adjuvant chemotherapy for breast cancer: A French prospective study[☆]

 Olivier Trédan^a, Agathe Bajard^b, Anne Meunier^c, Pascale Roux^d, Ingrid Fiorletta^d, Thérèse Gargi^b, Thomas Bachelot^a, Jean-Paul Guastalla^a, Yolande Lallemand^d, Christelle Faure^e, David Pérol^b, Patrick Bachmann^{d,*}
^a Predictive factors for weight gain at 1 year on univariate analysis (logistic regression model).

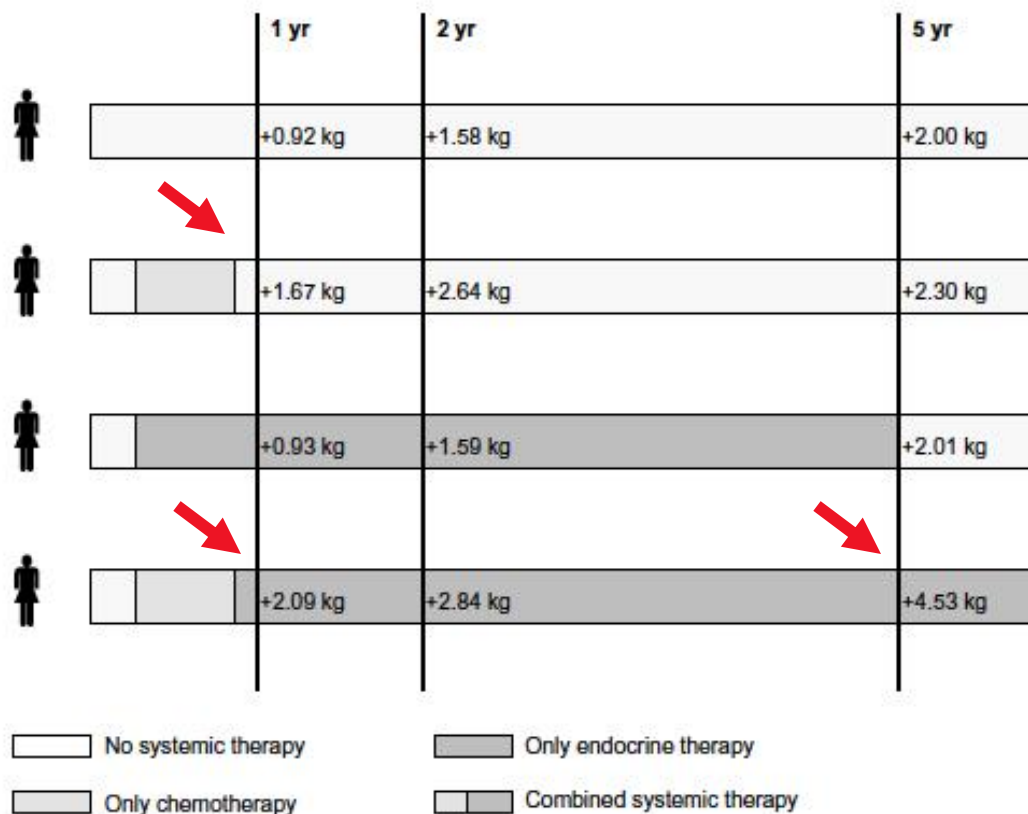
Explanatory variables	Univariate analysis		
	OR	95% CI	p-value
Reported weight gain during the year before diagnosis			
No			
Yes	0.54	[0.31–0.95]	0.034
Age (years)			
<50			
≥50	0.67	[0.34–1.14]	0.1
Compliance with FNNP guidelines over the study period			
No			
Yes	0.94	[0.55–1.63]	0.8
Initial body mass index			
<25			
≥25	0.7	[0.41–1.19]	0.2
Menopausal status			
Pre-menopausal women			
Post-menopausal women	0.74	[0.44–1.26]	0.3
Chemotherapy			
Anthracycline-based chemotherapy			
Taxane-based chemotherapy	0.9	[0.53–1.54]	0.7

Abbreviations: OR: odds ratio; CI: confidence interval; FNNP: French National Nutritional Plan.

The frequency, magnitude and timing of post-diagnosis body weight gain in Dutch breast cancer survivors

W.H. Heideman^a, N.S. Russell^b, C. Gundy^a, M.A. Rookus^{a,*}, D.W. Voskuil^a

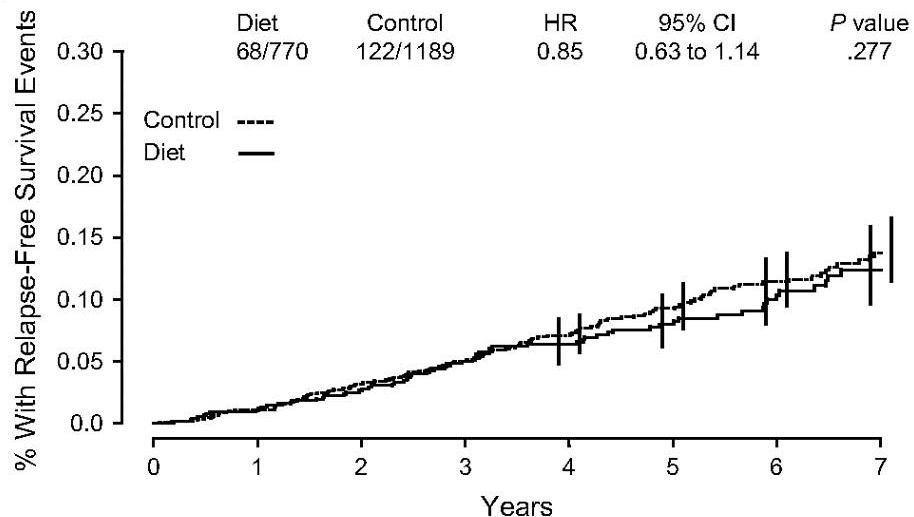
Overall weight change since diagnosis



Prognostic Effects of Weight Gain

		<u>n</u>	<u>Weight Gain (kg)</u>	<u>Prognostic Effect</u>
Bonomi	1984	67	8.2	Adverse
Chlebowski	1986	62	>10	Adverse
Camoriano	1990	545	5.9 (premenopausal)	Adverse (premenopausal)
Heasman	1985	237	4.3	None
Chlebowski	1986	62	< 10	None
Goodwin	1988	637	1.21-5.55	None
Levine	1991	32	4.2	None
Goodwin	2001	445	1.6	None
Caan	2006	3215	5-10%	None
			>10%	None
Caan	2008	1692	5-10%	None
			>10%	None

A

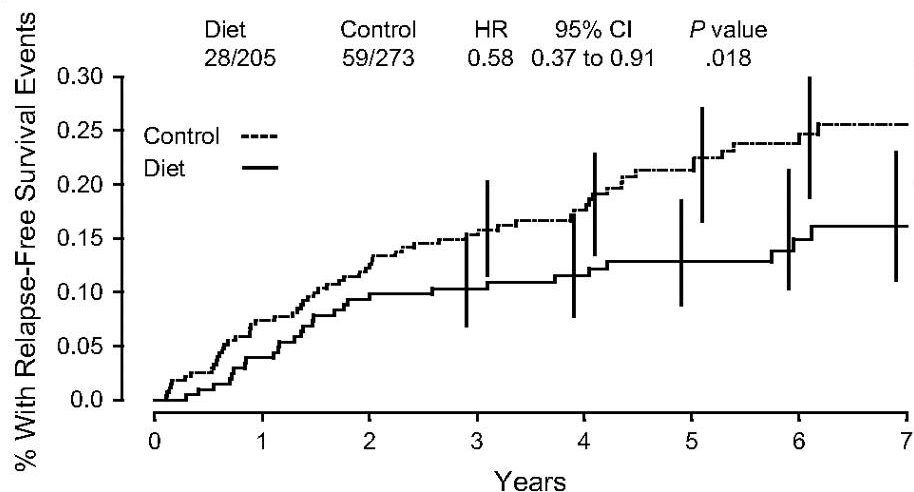


Diet	770	753	725	641	512	385	265	156
Control	1189	1165	1122	995	802	613	440	270

WINS:
Survie sans
rechute selon RH

RH +ve

B



Diet	205	196	182	166	135	105	77	45
Control	273	205	230	203	163	133	88	55

RH -ve

Dietary Patterns and Breast Cancer Recurrence and Survival Among Women With Early-Stage Breast Cancer

Marilyn L. Kwan, Erin Weltzien, Lawrence H. Kushi, Adrienne Castillo, Martha L. Slattery, and Bette J. Caan

A B S T R A C T

Purpose

To determine the association of dietary patterns with cancer recurrence and mortality of early-stage breast cancer survivors.

Patients and Methods

Patients Included 1,901 Life After Cancer Epidemiology Study participants diagnosed with early-stage breast cancer between 1997 and 2000 and recruited primarily from the Kaiser Permanente Northern California Cancer Registry. Diet was assessed at cohort entry using a food frequency questionnaire. Two dietary patterns were identified: prudent (high intakes of fruits, vegetables, whole grains, and poultry) and Western (high intakes of red and processed meats and refined grains). Two hundred sixty-eight breast cancer recurrences and 226 all-cause deaths (128 attributable to breast cancer) were ascertained. Cox proportional hazards models were used to estimate hazard ratios (HRs) and 95% CIs.

Results

Increasing adherence to a prudent dietary pattern was associated with a statistically significant decreasing risk of overall death (P trend = .02; HR for highest quartile = 0.57; 95% CI, 0.36 to 0.90) and death from non-breast cancer causes (P trend = .003; HR for highest quartile = 0.35; 95% CI, 0.17 to 0.73). In contrast, increasing consumption of a Western dietary pattern was related to an increasing risk of overall death (P trend = .05) and death from non-breast cancer causes (P = .02). Neither dietary pattern was associated with risk of breast cancer recurrence or death from breast cancer. These observations were generally not modified by physical activity, being overweight, or smoking.

Conclusion

Women diagnosed with early-stage breast cancer might improve overall prognosis and survival by adopting more healthful dietary patterns.

Relationship Between Potentially Modifiable Lifestyle Factors and Risk of Second Primary Contralateral Breast Cancer Among Women Diagnosed With Estrogen Receptor–Positive Invasive Breast Cancer

Christopher I. Li, Janet R. Daling, Peggy L. Porter, Mei-Tzu C. Tang, and Kathleen E. Malone

A B S T R A C T

Purpose

An outcome of considerable concern among breast cancer survivors is the development of second primary breast cancer. However, evidence regarding how potentially modifiable lifestyle factors modulate second breast cancer risk is limited. We evaluated the relationships between obesity, alcohol consumption, and smoking on risk of second primary invasive contralateral breast cancer among breast cancer survivors.

Methods

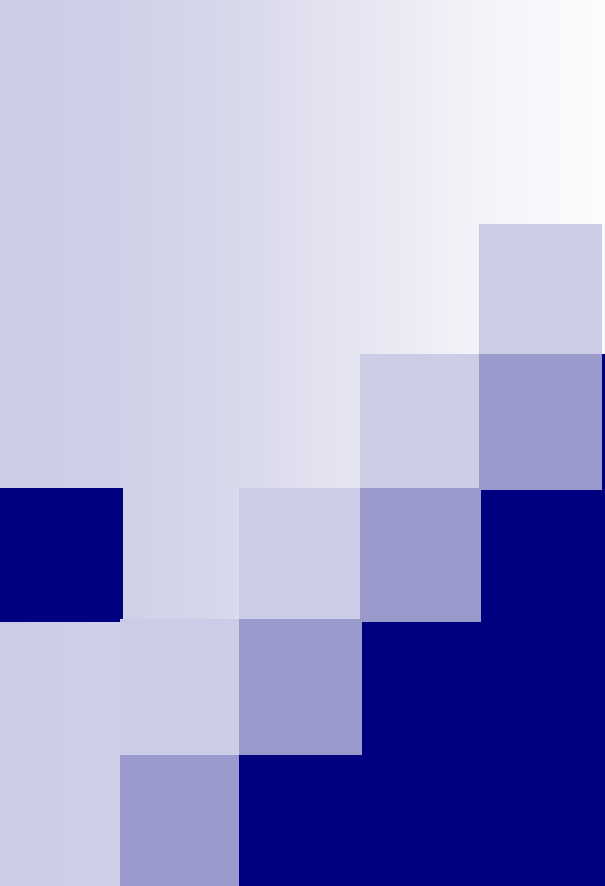
Utilizing a population-based nested case-control study design, we enrolled 365 patients diagnosed with an estrogen receptor–positive (ER+) first primary invasive breast cancer and a second primary contralateral invasive breast cancer, and 726 matched controls diagnosed with only an ER+ first primary invasive breast cancer. Obesity, alcohol use, and smoking data were ascertained from medical record reviews and participant interviews. Using conditional logistic regression we evaluated associations between these three exposures and second primary contralateral breast cancer risk.

Results

Obesity, consumption of ≥ 7 alcoholic beverages per week, and current smoking were all positively related to risk of contralateral breast cancer (odds ratio [OR], 1.4; 95% CI, 1.0 to 2.1; OR, 1.9; 95% CI, 1.1 to 3.2; and OR, 2.2; 95% CI, 1.2 to 4.0, respectively). Compared with women who consumed fewer than 7 alcoholic beverages per week and were never or former smokers, women who consumed ≥ 7 drinks per week and were current smokers had a 7.2-fold (95% CI, 1.9 to 26.5) elevated risk of contralateral breast cancer.

Conclusion

Our population-based study adds to the limited available literature and suggests that obesity, smoking, and alcohol consumption influence contralateral breast cancer risk, affording breast cancer survivors three means of potentially reducing this risk.



La consommation de micronutriments

**Les femmes jeunes ont davantage
recours aux compléments
alimentaires** (*Velicer J clin Oncol 2009*)

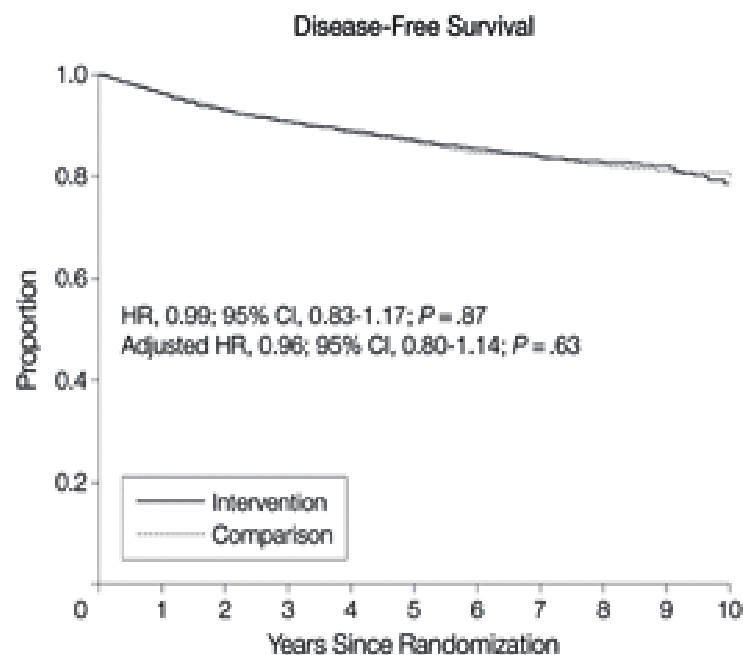
Should Supplemental Antioxidant Administration Be Avoided During Chemotherapy and Radiation Therapy?

Brian D. Lawenda, Kara M. Kelly, Elena J. Ladas, Stephen M. Sagar, Andrew Vickers, Jeffrey B. Blumberg

Despite nearly two decades of research investigating the use of dietary antioxidant supplementation during conventional chemotherapy and radiation therapy, controversy remains about the efficacy and safety of this complementary treatment. Several randomized clinical trials have demonstrated that the concurrent administration of antioxidants with chemotherapy or radiation therapy reduces treatment-related side effects. Some data indicate that antioxidants may protect tumor cells as well as healthy cells from oxidative damage generated by radiation therapy and some chemotherapeutic agents. However, other data suggest that antioxidants can protect normal tissues from chemotherapy- or radiation-induced damage without decreasing tumor control. We review some of the data regarding the putative benefits and potential risks of antioxidant supplementation concurrent with cytotoxic therapy. On the basis of our review of the published randomized clinical trials, we conclude that the use of supplemental antioxidants during chemotherapy and radiation therapy should be discouraged because of the possibility of tumor protection and reduced survival.

J Natl Cancer Inst 2008;100:773-783

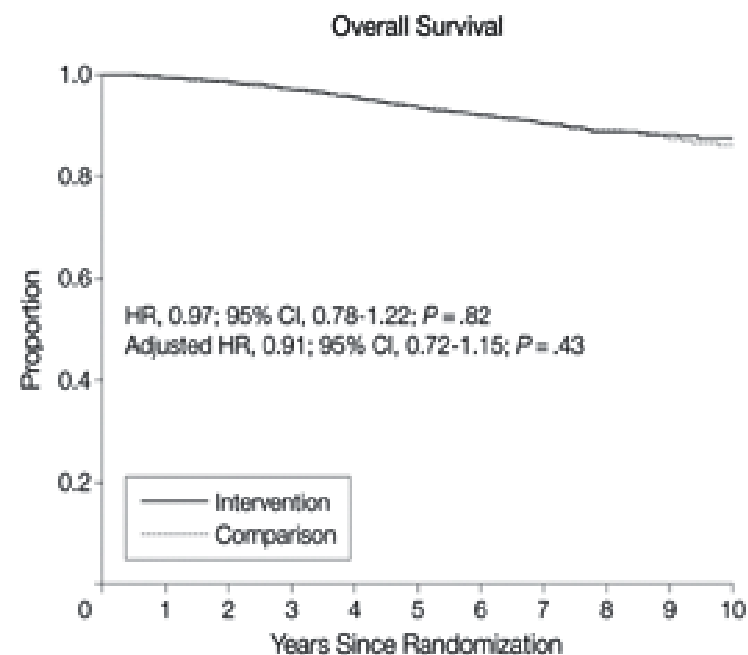
Essai WHEL



No. at risk											
Comparison	1551	1491	1436	1395	1353	1319	1113	817	489	271	96
Intervention	1537	1476	1422	1378	1343	1301	1087	811	505	278	95

Breast cancer events

Comparison	55	50	36	34	26	30	10	13	5	1
Intervention	56	50	35	26	27	24	18	7	4	9

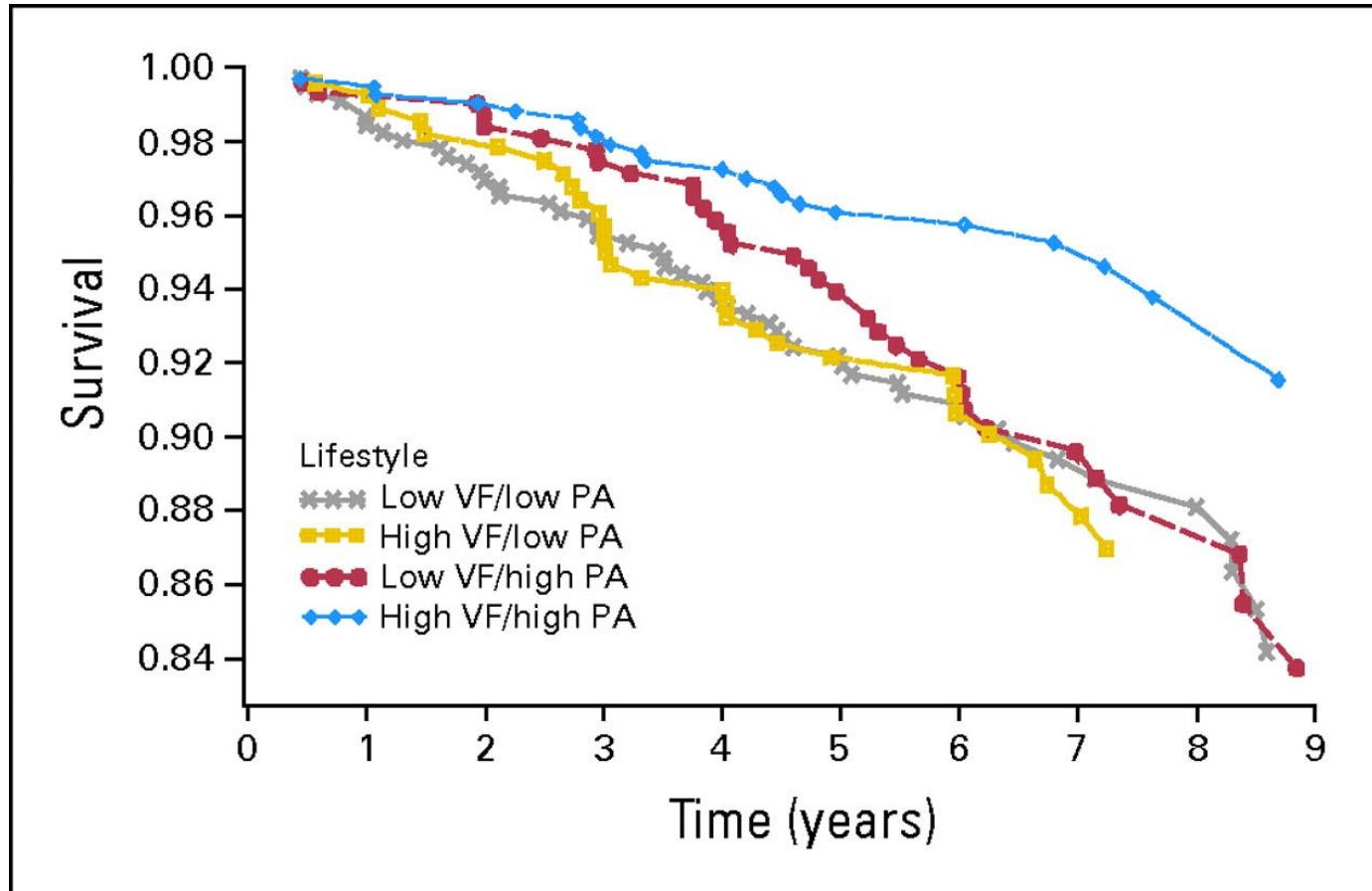


No. at risk											
Comparison	1551	1537	1516	1492	1463	1428	1220	894	541	306	105
Intervention	1537	1524	1509	1482	1452	1410	1185	891	561	314	108

Deaths

Comparison	10	18	17	25	26	21	21	12	7	3
Intervention	9	12	22	24	29	25	17	12	3	2

Kaplan-Meier survival after Women's Healthy Eating and Living (WHEL) Study enrollment by four diet and physical activity categories



Pierce, J. P. et al. J Clin Oncol; 25:2345-2351 2007

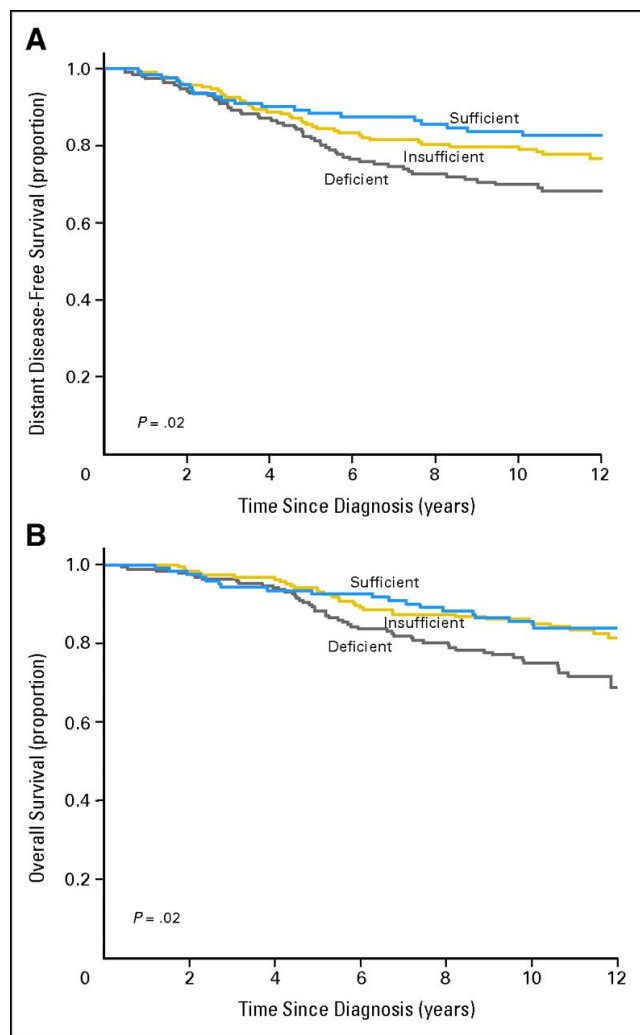


Fig 2. (A) Distant disease-free and (B) overall survival in women with sufficient, insufficient, and deficient vitamin D levels

Prognostic Effects of 25-Hydroxyvitamin D Levels in Early Breast Cancer

Pamela J. Goodwin, Marguerite Ennis, Kathleen I. Pritchard, Jarley Koo, and Nicky Hood

A B S T R A C T

Purpose

Vitamin D has been linked to breast cancer risk, but prognostic effects are unknown. Such effects are biologically plausible given the presence of vitamin D receptors in breast cancer cells, which act as nuclear transcription factors to regulate gene activity.

Patients and Methods

The study was conducted in a prospective inception cohort of 512 women with early breast cancer diagnosed 1989 to 1996. Vitamin D levels were measured in stored blood. Clinical, pathologic, and dietary data were accessed to examine prognostic effects of vitamin D.

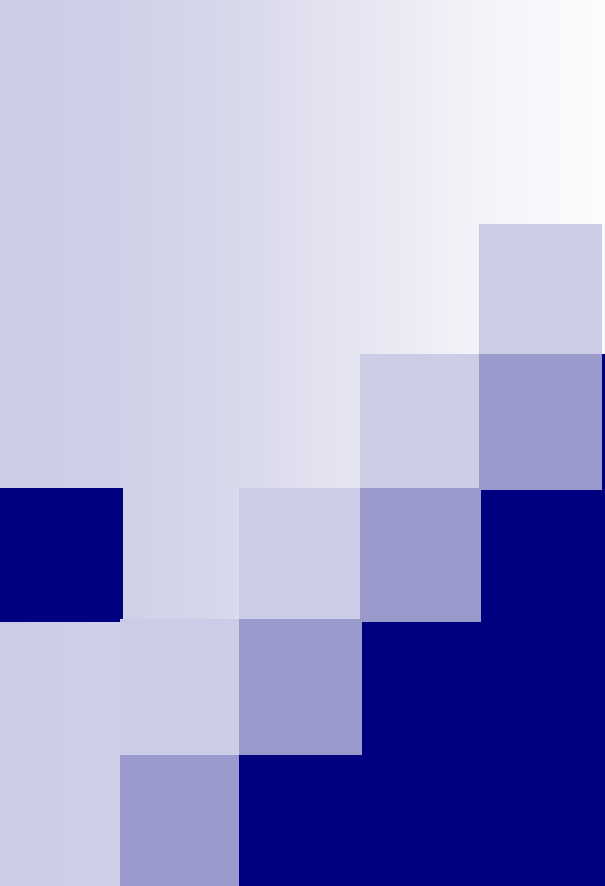
Results

Mean age was 50.4 years, mean vitamin D was 58.1 ± 23.4 nmol/L. Vitamin D levels were deficient (< 50 nmol/L) in 37.5% of patients, insufficient (50 to 72 nmol/L) in 38.5% of patients, and sufficient (> 72 nmol/L) in 24.0% of patients. There was little variation in mean vitamin D levels between summer and winter months. Mean follow-up was 11.6 years; 116 women had distant recurrences, and 106 women died. Women with deficient vitamin D levels had an increased risk of distant recurrence (hazard ratio [HR] = 1.94; 95% CI, 1.16 to 3.25) and death (HR = 1.73; 95% CI, 1.05 to 2.86) compared with those with sufficient levels. The association remained after individual adjustment for key tumor and treatment related factors but was attenuated in multivariate analyses (HR = 1.71; 95% CI, 1.02 to 2.86 for distant recurrence; HR = 1.60; 95% CI, 0.96 to 2.64 for death).

Conclusion

Vitamin D deficiency may be associated with poor outcomes in breast cancer.

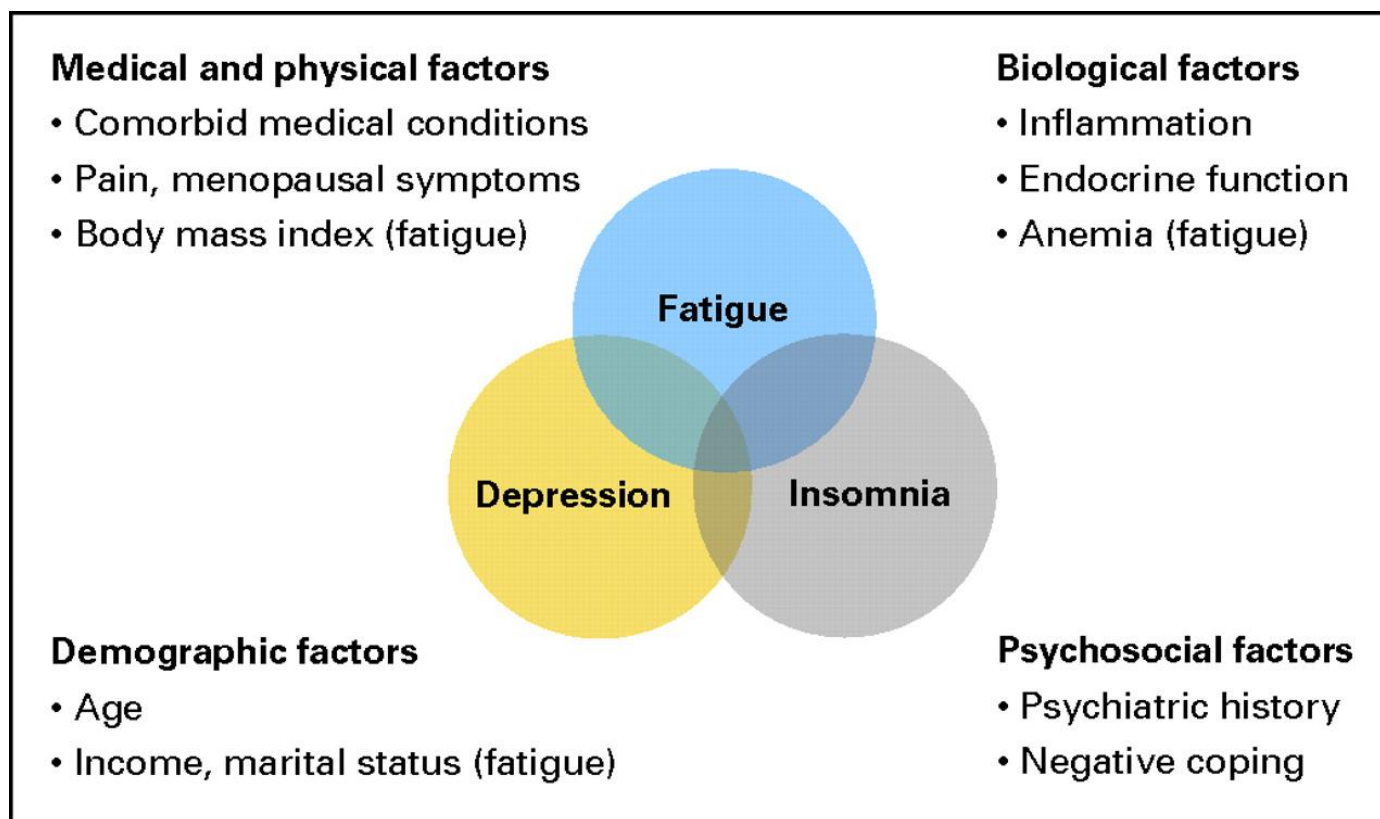
Goodwin, P. J. et al. J Clin Oncol; 27:3757-3763 2009



Activité physique

Des bénéfices multiples

Fatigue, depression, and sleep disturbance frequently co-occur in breast cancer patients and survivors



Bower, J. E. J Clin Oncol; 26:768-777 2008



500 000 **nutrinautes**
pour étudier les relations
entre la nutrition et la santé



ACCÈS MEMBRE

Identifiant

Mot de passe

OK

[Mot de passe oublié ?](#)

[Je m'inscris](#)

[Accueil](#)

[Pourquoi l'étude NutriNet-Santé ?](#)

[Objectifs de l'étude](#)

[L'étude NutriNet-Santé en bref](#)

[Qui peut participer ?](#)

[Pourquoi participer ?](#)

[Comment s'inscrire ?](#)

[Mode d'emploi](#)

[Qui coordonne ?](#)

[Partenaires ? Qui finance ?](#)

[Actualités de l'étude](#)

[NutriNet-Santé dans la presse](#)

[Foire aux questions](#)

[Vidéos NutriNet-Santé](#)

[ESPACE MEMBRE](#)

Objectifs de l'étude

L'objectif général de cette étude est de mieux évaluer les relations entre la nutrition et la santé et de comprendre les déterminants des comportements alimentaires.

Il s'agit d'étudier, sur un large groupe de personnes vivant en France :

- **Les comportements alimentaires et leurs déterminants** en fonction de l'âge, du sexe, des conditions socio-économiques, du lieu de résidence, etc.
- **Les relations entre les apports alimentaires, l'activité physique, l'état nutritionnel et la santé.** Tous les grands problèmes de santé seront étudiés, entre autre l'obésité, l'hypertension artérielle, le diabète, les dyslipidémies, les maladies cardiovasculaires, les cancers, etc.

Le but de cette étude est d'**identifier des facteurs de risque ou de protection liés à la nutrition** pour ces maladies, étape indispensable pour établir des recommandations nutritionnelles **permettant de prévenir le risque de maladies et d'améliorer la qualité de la santé de la population** actuelle et des générations futures.

[Je m'inscris](#)