

[Skip to main content](#)

Cornell University

[New](#) [Program](#) [Learning](#) [Resources](#) [Events](#) [Maps](#) & [Stats](#) [Research](#) [Resources](#) [BCERF](#) [Research](#)**SPRECHER  
INSTITUTE**  
for Comparative  
Cancer Research

## Dietary Fat and the Risk of Breast Cancer

### Bibliography

This bibliography is provided as a service to our readers. It is compiled from the entries in the BCERF [Environmental Risk Factors Bibliographic Database](#).

This bibliography is arranged topically. The topics include:

- [Review Articles on the influence of dietary fat on breast cancer risk](#)
- [International comparison studies](#)
- [Cohort Studies](#)
- [Case-control studies](#)
- [Animal Studies](#)
- [Tissue and plasma studies](#)
- [Studies on the influence of dietary fat on breast cancer survival](#)
- [Studies on the mechanisms underlying the influence of dietary fat on breast cancer risk](#)

#### **Review Articles on the influence of dietary fat on breast cancer risk**

Bagga, D., Capone, S., Wang, H.-J., Heber, D., Lill, M., Chap, L., and Glaspy, J. A. (1997). Dietary modulation of omega-3/omega-6 polyunsaturated fatty acid ratios in patients with breast cancer. *Journal of the National Cancer Institute* 89, 1123-1131.

Boyd, N. F., Greenberg, C., Lockwood, G., Little, L., Martin, L., Byng, J., Yaffe, M., and Tritchler, D. (1997). Effects at two years of a low-fat, high-carbohydrate diet on radiologic features of the breast: results from a randomized trial. *Journal of the National Cancer Institute* 89, 488-498.

Boyd, N. F., Martin, L., Lockwood, G., Greenberg, C., Yaffe, M., and Tritchler, D. (1998). Diet and breast cancer. *Nutrition and Epidemiology* 14, 722-724.

Boyd, N. F., Martin, L. J., Noffel, M., Lockwood, G. A., and Tritchler, D. L. (1993). A meta-analysis of studies of dietary fat and breast cancer risk. *British Journal of Cancer* 68, 627-636.

Capone, S. L., Bagga, D., and Glaspy, J. A. (1997). Relationship between omega-3 and omega-6 fatty acid ratios and breast cancer. *Nutrition* 13, 822-823.

Carroll, K. K. (1997). The role of dietary fat in breast cancer. *Current Opinion in Lipidology* 8, 53-56.

Cave, W. T. (1996). Dietary omega-3 polyunsaturated fats and breast cancer. *Nutrition* 12 supplement, S39-S56.

Colditz, G. A. (1995). Fat, estrogens, and the time frame for prevention of breast cancer. *Epidemiology* 6, 209-211.

Erickson, K. L. (1998). Dietary fat, breast cancer, and nonspecific immunity. *Nutrition Reviews* 56, S99-S105.

Galli, C., and Butrum, R. (1991). Dietary omega-3 fatty acids and cancer: an overview. *World Review of Nutrition and Dietetics* 66, 446-461.

Gerber, M. (1997). Olive oil, monounsaturated fatty acids, and cancer. *Cancer Letters* 114, 91-92.

- Goodwin, P. J., and Boyd, N. F. (1987). Critical appraisal of the evidence that dietary fat intake is related to breast cancer risk in humans. *Journal of the National Cancer Institute* 79, 473-485.
- Greenwald, P. (1999). Role of dietary fat in the causation of breast cancer: point. *Cancer Epidemiology, Biomarkers & Prevention* 8, 3-7.
- Greenwald, P., Sherwood, K., and McDonald, S. (1997). Fat, caloric intake, and obesity: lifestyle risk factors for breast cancer. *Journal of the American Dietetic Association* 97(suppl), S24-S30.
- Howe, G. R., Hirohata, T., Hislop, T. G., Isovich, J. M., Yuan, J.-M., Katsouyanni, K., Lubin, F., Marubini, E., Modan, B., Rohan, T., Toniolo, P., and Shunzhang, Y. (1990). Dietary factors and risk of breast cancer: combined analysis of 12 case-control studies. *Journal of the National Cancer Institute* 82, 561-569.
- Hunter, D. J. (1999). Role of dietary fat in the causation of breast cancer: counterpoint. *Cancer Epidemiology, Biomarkers & Prevention* 8, 9-13.
- Hunter, D. J., Spiegelman, D., Adami, H.-O., Beeson, L., van den Brandt, P. A., Folsom, A.R, Fraser, G. E., Goldbohm, A., Graham, S., Howe, G. R., Kushi, L. H., Marchall, J. R., McDermott, A., Miller, A. B., Speizer, F. E., Wolk, A., Yuan, S.-S., and Willett, W. (1996). Cohort studies of fat intake and the risk of breast cancer - a pooled analysis. *The New England Journal of Medicine* 334, 356-361.
- Hunter, D. J., Spiegelman, D., and Willett, W. (1998). Dietary fat and breast cancer (letter; comment). *Journal of the National Cancer Institute* 90, 1303-1306.
- Ip, C. (1993). Controversial issues of dietary fat and experimental mammary carcinogenesis. *Preventative Medicine* 22, 728-737.
- Karmali, R. A. (1989). n-3 fatty acids and cancer. *Journal of Internal Medicine* 225, 197-200.
- Kelsey, J. L., and Bernstein, L. (1996). Epidemiology and prevention of breast cancer. *Annual Review of Public Health* 17, 47-67.
- Kohlmeier, L., and Mendez, M. (1997). Controversies surrounding diet and breast cancer. *Proceedings of the Nutrition Society* 56, 369-382.
- Kushi, L. H., Lenart, E. B., and Willett, W. C. (1995). Health implications of Mediterranean diets in light of contemporary knowledge. 2. Meat, wine, fats, and oils. *American Journal of Clinical Nutrition* 61(suppl), 1416S-1427S.
- Lipworth, L., Martinez, M. E., Angell, J., Hsieh, C.-C., and Trichopoulos, D. (1997). Olive oil and human cancer: an assessment of evidence. *Preventative Medicine* 26, 181-190.
- Lund, E. (1994). The research tide ebbs for the dietary fat hypothesis in breast cancer. *Epidemiology* 5, 387-388.
- Miller, A. B. (1978). An overview of hormone-associated cancers. *Cancer Research* 38, 3985-3990.
- Prentice, R. L. (1996). Measurement error and results from analytic epidemiology: dietary fat and breast cancer. *Journal of the National Cancer Institute* 88, 1738-1747.
- Prentice, R. L., and Sheppard, L. (1990). Dietary fat and cancer: consistency of the epidemiologic data, and disease prevention that may follow from a practical reduction in fat consumption. *Cancer Causes and Control* 1, 81-97.
- Rose, D. P. (1997). Dietary fatty acids and cancer. *American Journal of Clinical Nutrition* 66(suppl), 998S-1003S.
- Rose, D. P. (1997). Dietary fatty acids and the prevention of hormone-responsive cancer. *Proceedings of the Society for Experimental Biology and Medicine* 216, 224-233.
- Rose, D. P. (1997). Effects of dietary fatty acids on breast and prostate cancers: evidence from in vitro experiments and animal studies. *American Journal of Clinical Nutrition* 66(suppl), 1513S-1522S.
- Welsch, C. W. (1994). Interrelationship between dietary lipids and calories and experimental mammary gland tumorigenesis. *Cancer* 74, 1055-1062.
- Willett, W. (1994). Response to Wynder et al.'s paper on dietary fat and breast cancer. *Journal of Clinical Epidemiology* 47, 223-226.

Willett, W. (1997). Specific fatty acids and risks of breast and prostate cancer: dietary intake. *American Journal of Clinical Nutrition* 66(suppl), 1557S-1563S.

Willett, W. C. (1998). Dietary fat intake and cancer risk: a controversial and instructive story. *Seminars in Cancer Biology* 8, 245-253.

World Cancer Research Fund and the American Institute for Cancer Research. (1997). *Food, Nutrition and the Prevention of Cancer: A Global Perspective* (Washington, D.C.: American Institute for Cancer Research), pp. 252-287.

Wynder, E. L., Cohen, L. A., Muscat, J. E., Winters, B., Dwyer, J. T., and Blackburn, G. (1997). Breast cancer: weighing the evidence for a promoting role of dietary fat. *Journal of the National Cancer Institute* 89, 766-775.

Wynder, E. L., Cohen, L. A., Rose, D. P., and Stellman, S. D. (1994). Dietary fat and breast cancer: Where do we stand on the evidence? *Journal of Clinical Epidemiology* 47, 217-222.

Wynder, E. L., Cohen, L. A., Rose, D. P., and Stellman, S. D. (1994). Response to Dr. Walter Willett's dissent. *Journal of Clinical Epidemiology* 47, 227-230.

### **International Comparison Studies**

Armstrong, B., and Doll, R. (1975). Environmental factors and cancer incidence and mortality in different countries, with special reference to dietary practices. *International Journal of Cancer* 15, 617-631.

Caygill, C. P. J., Charlett, A., and Hill, M. J. (1996). Fat, fish, fish oil and cancer. *British Journal of Cancer* 74, 159-164.

Eid, A., and Berry, E. M. (1988). The relationship between dietary fat, adipose tissue composition, and neoplasms of the breast. *Nutrition and Cancer* 11, 173-177.

Hirayama, T. (1978). Epidemiology of breast cancer with special reference to the role of diet. *Preventive Medicine* 7, 173-195.

Hursting, S. D., Thorquist, M., and Henderson, M. M. (1990). Types of dietary fat and the incidence of cancer at five sites. *Preventive Medicine* 19, 242-253.

Kaizer, L., Boyd, N. F., Kriukov, V., and Tritchler, D. (1989). Fish consumption and breast cancer risk: an ecological study. *Nutrition and Cancer* 12, 61-68.

Lanier, A. P., Bulkow, L. R., and Ireland, B. (1989). Cancer in Alaskan Indians, Eskimos, and Aleuts, 1969-83: implications for etiology and control. *Public Health Reports* 104, 658-64.

Rose, D. P., Boyar, A. P., and Wynder, E. L. (1986). International comparisons of mortality rates for cancer of the breast, ovary, prostate, and colon, and per capita food consumption. *Cancer* 58, 2363-2371.

Sasaki, S., Horacek, M., and Kesteloot, H. (1993). An ecological study of the relationship between dietary fat intake and breast cancer mortality. *Preventive Medicine* 22, 187-202.

### **Epidemiologic studies: cohort studies**

Gaard, M., Tretli, S., and Loken, E. B. (1995). Dietary fat and the risk of breast cancer: a prospective study of 25,892 Norwegian women. *International Journal of Cancer* 63, 13-17.

Graham, S., Zielezny, M., Marshall, J., Priore, R., Freudenheim, J., Brasure, J., Hauhey, B., Nasca, P., and Zdeb, M. (1992). Diet in the epidemiology of postmenopausal breast cancer in the New York State cohort. *American Journal of Epidemiology* 136, 1327-37.

Holmes, M. D., Hunter, D. J., Colditz, G. A., Stampfer, M. J., Hankinson, S. E., Speizer, F. E., Rosner, B., and Willett, W. C. (1999). Association of dietary intake of fat and fatty acids with risk of breast cancer. *Journal of the American Medical Association* 281, 914-920.

Howe, G. R., Friedenreich, C. M., Jain, M., and Miller, A. B. (1991). A cohort study of fat intake and risk of breast cancer. *Journal of the National Cancer Institute* 83, 336-340.

Jones, D. Y., Schatzkin, A., Green, S. B., Block, G., Brinton, L. A., Ziegler, R. G., Hoover, R., and Taylor, P. R. (1987). Dietary fat and breast cancer in the National Health and Nutrition Examination Survey I epidemiologic follow-up study. *Journal of the National Cancer Institute* 79, 465-471.

- Knekt, P., Albane, D., Seppanen, R., Aromaa, A., Jarvinen, R., Hyvonen, L., Teppo, L., and Pukkala, E. (1990). Dietary fat and risk of breast cancer. *American Journal of Clinical Nutrition* 52, 903-908.
- Kushi, L. H., Sellers, T. A., Potter, J. D., Nelson, C. L., Munger, R. G., Kaye, S. A., and Folsom, A. R. (1992). Dietary fat and postmenopausal breast cancer. *Journal of the National Cancer Institute* 84, 1092-1099.
- Mills, P. K., Beeson, L., Phillips, R. L., and Fraser, G. E. (1989). Dietary habits and breast cancer incidence among Seventh-day Adventists. *Cancer* 64, 582-590.
- Toniolo, P., Riboli, E., Shore, R. E., and Pasternack, B. S. (1994). Consumption of meat, animal products, protein and fat and risk of breast cancer: a prospective study in New York. *Epidemiology* 5, 391-397.
- van den Brandt, P. A., van't Veer, P., Goldbohm, R. A., Dorant, E., Volovics, A., Hermus, R. J. J., and Sturmans, F. (1993). A prospective cohort study on dietary fat and the risk of postmenopausal breast cancer. *Cancer Research* 53, 75-82.
- Vatten, L. J., Solvoll, K., and Loken, E. B. (1990). Frequency of meat and fish intake and risk of breast cancer in a prospective study of 14500 Norwegian women. *International Journal of Cancer* 46, 12-15.
- Willett, W. C., Hunter, D. J., Stampfer, M. J., Colditz, G., Manson, J. E., Spiegelman, D., Rosner, B., Hennekens, C. H., and Speizer, F. E. (1992). Dietary fat and fiber in relation to risk of breast cancer. *Journal of the American Medical Association* 268, 2037-2044.
- Willett, W. C., Stampfer, M. J., Colditz, G. A., Rosner, B. A., Hennekens, C. H., and Speizer, F. E. (1987). Dietary fat and the risk of breast cancer. *The New England Journal of Medicine* 316, 22-28.
- Wolk, A., Bergstrom, R., Hunter, D., Willett, W., Ljung, H., Holmberg, L., Bergkvist, L., Bruce, A., and Adami, H.-O. (1998). A prospective study of association of monounsaturated fat and other types of fat with risk of breast cancer. *Archives of Internal Medicine* 158, 41-45.

### **Case-control studies**

- Cade, J., Thomas, E., and Vail, A. (1998). Case-control study of breast cancer in south east England: nutritional factors. *Journal of Epidemiologic Community Health* 52, 105-110.
- De Stefani, E., Deneo-Pellegrini, H., Mendilaharsu, M., and Ronco, A. (1997). Essential fatty acids and breast cancer: a case-control study in Uruguay. *International Journal of Cancer* 76, 491-494.
- Ewertz, M., and Gill, C. (1990). Dietary factors and breast-cancer risk in Denmark. *International Journal of Cancer* 46, 779-784.
- Graham, S., Hellmann, R., Marshall, J., Freudenheim, J., Vena, J., Swanson, M., Zielezny, M., Nemoto, T., Stubbe, N., and Raimondo, T. (1991). Nutritional epidemiology of postmenopausal breast cancer in western New York. *American Journal of Epidemiology* 134, 552-566.
- Graham, S., Marshall, J., Mettlin, C., Rzepka, T., Nemoto, T., and Byers, T. (1982). Diet in the epidemiology of breast cancer. *American Journal of Epidemiology* 116, 68-75.
- Hirohata, T., Nomura, A. M. Y., Hankin, J. H., Kolonel, L. N., and Lee, J. (1987). An epidemiologic study on the association between diet and breast cancer. *Journal of the National Cancer Institute* 78, 595-600.
- Hirose, K., Tajima, K., Hamajima, N., Inoue, M., Takezaki, T., Kuroishi, T., Yoshida, M., and Tokudome, S. (1995). A large-scale, hospital-based case-control study of risk factors of breast cancer according to menopausal status. *Japanese Journal of Cancer Research* 86, 146-154.
- Hislop, T. G., Coldman, A. J., Elwood, J. M., Brauer, G., and Kan, L. (1986). Childhood and recent eating patterns and risk of breast cancer. *Cancer Detection and Prevention* 9, 47-58.
- Holmberg, L., Ohlander, E. M., Byers, T., Zack, M., Wolk, A., Bergstrom, R., Bergkvist, L., Thurfjel, E., Bruce, A., and Adami, H.-O. (1994). Diet and breast cancer risk: results from a population-based, case-control study in Sweden. *Archives of Internal Medicine* 154, 1805-1811.
- Ingram, D. M., Nottage, E., and Roberts, T. (1991). The role of diet in the development of breast cancer: a case-control study of patients with breast cancer, benign epithelial hyperplasia and fibrocystic disease of the breast. *British Journal of Cancer* 64, 187-191.
- Iscovich, J. M., Iscovitch, R. B., Howe, G., Shibuski, S., and Kaldor, J. M. (1989). A case-control study of diet and breast

cancer in Argentina. *International Journal of Cancer* 44, 770-776.

Kato, I., Miura, S., Kasumi, F., Iwase, T., Tashiro, H., Fujita, Y., Koyama, H., Ikeda, T., Fujiwara, K., Saotome, K., Asaishi, K., Abe, R., Nihei, M., Ishida, T., Yokoe, T., Yamamoto, H., and Murata, M. (1992). A case-control study of breast cancer among Japanese women: with special reference to family history and reproductive and dietary factors. *Breast Cancer Research and Treatment* 24, 51-59.

Katsouyanni, K., Trichopoulou, A., Stuver, S., Garas, Y., Kritselis, A., Kyriakou, G., Stoikidou, M., Boyle, P., and Trichopoulos, D. (1994). The association of fat and other macronutrients with breast cancer: a case-control study from Greece. *British Journal of Cancer* 70, 537-541.

Katsouyanni, K., Willett, W., Trichopoulos, D., Boyle, P., Trichopoulou, A., Vasilaros, S., Papadiamantis, J., and MacMahon, B. (1988). Risk of breast cancer among Greek women in relation to nutrient intake. *Cancer* 61, 181-185.

Landa, M.-C., Frago, N., and Tres, A. (1994). Diet and the risk of breast cancer in Spain. *European Journal of Cancer Prevention* 3, 313-320.

LaVecchia, C., Decarli, A., Franceschi, S., Gentile, A., Negri, E., and Parazzini, F. (1987). Dietary factors and the risk of breast cancer. *Nutrition and Cancer* 10, 205-214.

LaVecchia, C., Decarli, A., Parazzini, F., Gentile, A., Negri, E., Cecchetti, G., and Franceschi, S. (1987). General epidemiology of breast cancer in northern Italy. *International Journal of Epidemiology* 16, 347-355.

Lee, H. P., Gourley, L., Duffy, S. W., Esteve, J., Lee, J., and Day, N. E. (1991). Dietary effects on breast cancer risk in Singapore. *Lancet* 3737, 1197-1200.

Levi, F., La Vecchia, C., Gulie, C., and Negri, E. (1993). Dietary factors and breast cancer risk in Vaud, Switzerland. *Nutrition and Cancer* 19, 327-335.

Lubin, J. H., Burns, P. E., Blot, W. J., Ziegler, R. G., Lees, A. W., and Fraumeni, J. F., Jr. (1981). Dietary factors and breast cancer risk. *International Journal of Cancer* 28, 685-689.

Malik, I. A., Sharif, S., Malik, F., Hakimali, A., Khan, W. A., and Badruddin, S. H. (1993). Nutritional aspects of mammary carcinogenesis: a case-control study. *Journal of the Pakistan Medical Association* 43, 118-120.

Martin-Moreno, J. M., Willett, W. C., Gorgojo, L., Banegas, J. R., Rodriguez-Artalejo, F., Fernandez-Rodreguez, J. C., Maisonneuve, P., and Boyle, P. (1994). Dietary fat, olive oil intake and breast cancer risk. *International Journal of Cancer* 58, 774-780.

Miller, A. B., Kelly, A., Choi, N. W., Matthews, V., Morgan, R. W., Munan, L., Burch, J. D., Feather, J., Howe, G. R., and Jain, M. (1978). A study of diet and breast cancer. *American Journal of Epidemiology* 107, 499-509.

Potischman, N., Weiss, H. A., Swanson, C. A., Coates, R. J., Gammon, M. D., Malone, K. E., Brogan, D., Stanford, J. L., Hoover, R. N., and Brinton, L. A. (1998). Diet during adolescence and risk of breast cancer among young women. *Journal of the National Cancer Institute* 90, 226-233.

Pryor, M., Slattery, M. L., Robison, L. M., and Egger, M. (1989). Adolescent diet and breast cancer in Utah. *Cancer Research* 49, 2161-2167.

Richardson, S., Gerber, M., and Cenee, S. (1991). The role of fat, animal protein, and some vitamin consumption in breast cancer: a case control study in southern France. *The International Journal of Cancer* 48, 1-9.

Rohan, T. E., McMichael, A. J., and Baghurst, P. A. (1988). A population-based case-control study of diet and breast cancer in Australia. *American Journal of Epidemiology* 128, 478-489.

Shun-Zhang, Y., Rui-Fang, L., Da-Dao, X., and Howe, G. R. (1990). A case-control study of dietary and nondietary risk factors for breast cancer in Shanghai. *Cancer Research* 50, 5017-5021.

Simard, A., Vobecky, J., and Vobecky, J. S. (1990). Nutrition and lifestyle factors in fibrocystic disease and cancer of the breast. *Cancer Detection and Prevention* 14, 567-572.

Trichopoulou, A., Katsouyanni, K., Stuver, S., Tzala, L., Gnardellis, C., Rimm, E., and Trichopoulos, D. (1995). Consumption of olive oil and specific food groups in relation to breast cancer risk in Greece. *Journal of the National Cancer Institute* 87, 110-116.

Toniolo, P., Riboli, E., Proetta, F., Charrel, M., and Cappa, A. P. M. (1989). Calorie-providing nutrients and risk of breast

cancer. *Journal of the National Cancer Institute* 81, 278-286.

Yuan, J.-M., Wang, Q.-S., Ross, R. K., Henderson, B. E., and Yu, M. C. (1995). Diet and breast cancer in Shanghai and Tianjin, China. *British Journal of Cancer* 71, 1353-1358.

Zaridze, D., Lifanova, Y., Maximovitch, D., Day, N. E., and Duffy, S. W. (1991). Diet, alcohol consumption and reproductive factors in a case-control study of breast cancer in Moscow. *International Journal of Cancer* 48, 493-501.

### Animal Studies

Abou-El-Ela, S. H., Prasse, K. W., Farrell, R. L., Carroll, R. W., Wade, A. E., and Bunce, O. R. (1989). Effects of D,L-2-difuoromethylornithine and indomethacin on mammary tumor promotion in rats fed high n-3 and/or n-6 fat diets. *Cancer Research* 49, 1434-1440.

Braden, L. M., and Carroll, K. K. (1986). Dietary polyunsaturated fat in relation to mammary carcinogenesis in rats. *Lipids* 21, 285-288.

Cave, W. T. (1997). Omega-3 polyunsaturated fatty acids in rodent models of breast cancer. *Breast Cancer Research and Treatment* 46, 239-246.

Cohen, L. A., Chen-Backlund, J.-Y., Sepkovic, D. W., and Sugie, S. (1993). Effect of varying proportions of dietary menhaden and corn oil on experimental rat mammary tumor promotion. *Lipids* 28, 449-456.

Craig-Schmidt, M., White, M. T., Teer, P., Johnson, J., and Lane, H. W. (1993). Menhaden, coconut, and corn oils and mammary tumor incidence in BALB/c virgin female mice treated with DMBA. *Nutrition and Cancer* 20, 99-106.

Escrich, E., Solanas, M., and Segura, R. (1994). Experimental diets for the study of lipid influence on the induced mammary carcinoma in rats: I-diet definition. *in vivo* 8, 1099-1106.

Fay, M. P., Freedman, L. S., Clifford, C. K., and Midthune, D. N. (1997). Effect of different types and amounts of fat on the development of mammary tumors in rodents: a review. *Cancer Research* 57, 3979-3988.

Gabor, H., and Abraham, S. (1986). Effect of dietary menhaden oil on tumor cell loss and the accumulation of mass of a transplantable mammary adenocarcinoma in BALB/c mice. *Journal of the National Cancer Institute* 75, 1223-1229.

Gonzalez, M. J., Schemmel, R. A., Gray, J. I., Dugan, L., Jr., Sheffield, L. G., and Welsch, C. W. (1991). Effect of dietary fat on growth of MCF-7 and MDA-MB231 human breast carcinomas in athymic nude mice: relationship between carcinoma growth and lipid peroxidation product levels. *Carcinogenesis* 12, 1231-1235.

Hirose, M., Masuda, A., Ito, N., Kamano, K., and Okuyama, H. (1990). Effects of dietary perilla oil, soybean oil and safflower oil on 7,12-dimethylbenz[a]anthracene (DMBA) and 1,2-dimethyl-carcinogenesis in female SD rats. *Carcinogenesis* 11, 731-735.

Hubbard, N. E., Lim, D., and Erickson, K. L. (1998). Alteration of murine mammary tumorigenesis by dietary enrichment with n-3 fatty acids in fish oil. *Cancer Letters* 124, 1-7.

Ip, C. (1997). Review of the effects of trans fatty acids, oleic acid, n-3 polyunsaturated fatty acids, and conjugated linoleic acid on mammary carcinogenesis in mammals. *American Journal of Clinical Nutrition* 66 (suppl), 1523S-1529S.

Ip, C., Carter, C. A., and Ip, M. M. (1985). Requirement of essential fatty acid for mammary tumorigenesis in the rat. *Cancer Research* 45, 1997-2001.

Jurkowski, J. J., and Cave, W., Jr. (1983). Dietary effects of menhaden oil on growth and membrane lipid composition of rat mammary tumors. *Journal of the National Cancer Institute* 74, 1145-1150.

Kort, W. J., Weijma, I. M., Bijma, A. M., van Schalkwijk, W. P., Vergroesen, A. J., and Westbroek, D. L. (1987). Omega-3 fatty acids inhibiting the growth of a transplantable rat mammary adenocarcinoma. *Journal of the National Cancer Institute* 79, 593-599.

Kristiansen, E., Madsen, C., Meyer, O., Roswall, K., and Thorup, I. (1993). Effects of high-fat diet on incidence of spontaneous tumors in Wistar rats. *Nutrition and Cancer* 19, 99-110.

Lhuillery, C., Bougnoux, P., Groscolas, R., and Durand, G. (1995). Time-course study of adipose tissue fatty acid composition during mammary tumor growth in rats with controlled fat intake. *Nutrition and Cancer* 24, 299-309.

Munoz, S. E., Silva, R. A., Lamarque, A., Guzman, C. A., and Eynard, A. R. (1995). Protective capability of dietary Zizyphus

mistol seed oil, rich in 18:3, n-3 on the development of two murine mammary gland adenocarcinomas with high or low metastatic potential. Prostaglandins Leukotrienes and Essential Fatty Acids 53, 135-138.

Noguchi, M., Minami, M., Yagasaki, R., Kinoshita, K., Earashi, M., Kitagawa, H., Taniya, T., and Miyazaki, I. (1997). Chemoprevention of DMBA-induced mammary carcinogenesis in rats by low-dose EPA and DHA. British Journal of Cancer 75, 348-353.

Pritchard, G. A., Jones, D. L., and Mansel, R. E. (1989). Lipids in breast carcinogenesis. British Journal of Surgery 76, 1069-1073.

Rogers, A. E. (1997). Diet and breast cancer: studies in laboratory animals. Journal of Nutrition 127, 933S-935S.

Rose, D. P., and Connolly, J. M. (1993). Effects of dietary omega-3 fatty acids on human breast cancer growth and metastases in nude mice. Journal of the National Cancer Institute 85, 1743-1747.

Rose, D. P., Connolly, J. M., Rayburn, J., and Coleman, M. (1995). Influence of diets containing eicosapentaenoic or docosahexaenoic acid on growth and metastasis of breast cancer cells in nude mice. Journal of the National Cancer Institute 87, 587-592.

Russo, J., Gusterson, B. A., Rogers, A. E., Russo, I. H., Wellings, S. R., and van Zwieten, M. J. (1990). Biology of Disease: Comparative study of human and rat mammary tumorigenesis. Laboratory Investigation 62, 244-278.

Sasaki, T., Kobayashi, Y., Shimizu, J., Wada, M., In'ami, S., Kanke, S., and Takita, T. (1998). Effects of dietary n-3-to-n-6 polyunsaturated fatty acid ratio on mammary carcinogenesis in rats. Nutrition and Cancer 30, 137-143.

Takata, T., Minoura, T., Takada, H., Sakaguchi, M., Yamamura, M., Hioki, K., and Yamamoto, M. (1990). Specific inhibitory effect of dietary eicosapentaenoic acid on N-nitroso-N-methylurea-induced mammary carcinogenesis in female Sprague-Dawley rats. Carcinogenesis 11, 2015-2019.

### Tissue and plasma studies

Bakker, N., van't Veer, P., Zock, P. L., and EURAMIC study group (1997). Adipose fatty acids and cancers of the breast, prostate and colon: an ecological study. International Journal of Cancer 72, 587-591.

Bougnoux, P., Koscielny, S., Chajes, V., Descamps, P., Couet, C., and Calais, G. (1993). Alpha-linolenic acid content of adipose breast tissue: a host determinant of the risk of early metastasis in breast cancer. British Journal of Cancer 70, 330-4.

Boyd, N. F., Connelly, P., Lynch, H., Knaus, M., Michal, S., Fili, M., Martin, L. J., Lockwood, G., and Tritchler, D. (1995). Plasma lipids, lipoproteins, and familial breast cancer. Cancer Epidemiology, Biomarkers, and Prevention 4, 117-122.

Caleffi, M., Ashraf, J., Rowe, P. H., Thomas, B. S., and Fentiman, I. S. (1987). A comparison of the fatty acid profiles of subcutaneous fat from women with breast cancer, benign breast disease and normal controls. Anticancer Research 7, 1305-1308.

Chajes, V., Niyongabo, T., Lanson, M., Fignon, A., Couet, C., and Bougnoux, P. (1991). Fatty-acid composition of breast and iliac adipose tissue in breast cancer patients. International Journal of Cancer 50, 405-408.

Godley, P. A. (1995). Essential fatty acid consumption and risk of breast cancer. Breast Cancer Research and Treatment 35, 91-95.

Kohlmeier, L., Simonsen, N., van't Veer, P., Strain, J. J., Martin-Moreno, J. M., Margolin, B., Hutterunen, J. K., Fernandez-Crehuet Navajas, J., Martin, B. C., Thamm, M., Kardinaal, A. F. M., and Kok, F. J. (1997). Adipose tissue trans fatty acids and breast cancer in the European community multicenter study on antioxidants, myocardial infarction, and breast cancer. Cancer Epidemiology, Biomarkers, and Prevention 6, 705-710.

London, S. J., Sacks, F. M., Stampfer, M. J., Henderson, I. C., Maclure, M., Tomita, A., Wood, W. C., Remine, S., Robert, N. J., Dmochowski, J. R., and Willett, W. C. (1993). Fatty acid composition of the subcutaneous adipose tissue and risk of proliferative benign breast disease and breast cancer. Journal of the National Cancer Institute. 85, 785-793.

Newcomb, P. A., Klein, R., Klein, B. E. K., Haffner, S., Mares-Perlman, J., Cruickshanks, K. J., and Marcus, P. M. (1995). Association of dietary and life-style factors with sex hormones in postmenopausal women. Epidemiology 6, 318-321.

Petrek, J. A., Hudgins, L. C., Ho, M., Bajorunas, D. R., and Hirsch, J. (1997). Fatty acid composition of adipose tissue, an indication of dietary fatty acids, and breast cancer prognosis. Journal of Clinical Oncology 15, 1377-1384.

- Petrek, J. A., Hudgins, L. C., Levine, B., Ho, M., and Hirsch, J. (1994). Breast cancer risk and fatty acids in breast and abdominal adipose tissue. *Journal of the National Cancer Institute* 86, 53-56.
- Schaefer, E. J., Lamon-Fava, S., Spiegelman, D., Dwyer, J. T., Lichtenstein, A. H., McNamara, J. R., Goldin, B. R., Woods, M. N., Morrill-LaBrode, A., Hertzmark, E., Longcope, C., and Gorbach, S. L. (1995). Changes in plasma lipoprotein concentration and composition in response to a low-fat, high-fiber diet are associated with changes in serum estrogen concentrations in premenopausal women. *Metabolism* 44, 749-756.
- Simonsen, N., van't Veer, P., Strain, J. J., Martin-Moreno, J. M., Huttunen, J. K., Fernandez-Crehuet Navajas, J., Martin, B. C., Thamm, M., Kardinaal, A. F. M., Kok, F. J., and Kohlmeier, L. (1998). Adipose tissue omega-3 and omega-6 fatty acid content and breast cancer in the EURAMIC study. *American Journal of Epidemiology* 147, 342-352.
- Simonsen, N. R., Fernandez-Crehuet Navajas, J., Martin-Moreno, J. M., Strain, J. J., Huttunen, J. K., Martin, B. C., Thamm, M., Kardinaal, A. F. M., Kok, F. J., and Kohlmeier, L. (1998). Tissue stores of individual monounsaturated fatty acids and breast cancer: the EURAMIC study. *American Journal of Clinical Nutrition* 68, 134-141.
- Zhu, Z. R., Agren, J., Mannisto, S., Pietinen, P., Eskelinen, M., Syrjanen, K., and Uusitupa, M. (1995). Fatty acid composition of breast adipose tissue in breast cancer patients and in patients with benign breast disease. *Nutrition and Cancer* 24, 151-160.

### **Studies on the influence of dietary fat on breast cancer survival**

- Boyd, N. F., Lockwood, G. A., Byng, J. W., Tritchler, D. L., and Yaffe, M. J. (1998). Mammographic densities and breast cancer risk. *Cancer Epidemiology, Biomarkers and Prevention* 7, 1133-1144.
- Byers, T., Rock, C. L., and Hamilton, K. K. (1997). Dietary changes after breast cancer: What should we recommend? *Cancer Practice* 5, 317-320.
- Caygill, C. P. J., and Hill, M. J. (1995). Fish, n-3 fatty acids and human colorectal and breast cancer mortality. *European Journal of Cancer Prevention* 4, 329-332.
- Demark-Wahnefried, W., Rimer, B. K., and Winer, E. P. (1997). Weight gain in women diagnosed with breast cancer. *Journal of the American Dietetic Association* 97, 519-526,529.
- Dolecek, T. A. (1992). Epidemiological evidence of relationships between dietary polyunsaturated fatty acids and mortality in the multiple risk factor intervention trial. *Proceedings of the Society for Experimental Biology and Medicine*. 200, 177-182.
- Hebert, J. R., and Rosen, A. (1996). Nutritional, socioeconomic, and reproductive factors in relation to female breast cancer mortality: findings from a cross-national study. *Cancer Detection and Prevention* 20, 234-244.
- Jain, M., and Miller, A. B. (1997). Tumor characteristics and survival of breast cancer patients in relation to premorbid diet and body size. *Breast Cancer Research and Treatment* 42, 43-55.
- Lund, E., and Bonaa, K. H. (1993). Reduced breast cancer mortality among fisherman's wives in Norway. *Cancer Causes and Control* 4, 283-287.
- Marshall, J. R., Yinsheng, Q., Junshi, C., Parpia, B., and Campbell, T. C. (1992). Additional ecological evidence: lipids and breast cancer mortality among women aged 55 and over in China. *European Journal of Cancer* 28A, 1720-1727.
- Nixon, D. W. (1996). Cancer, cancer cachexia, and diet: lessons from clinical research. *Nutrition 12 Supplement*, S52-S56.
- Staessen, L., De Henauw, S., De Bacquer, D., De Backer, G., and Van Peteghem, C. (1997). Consumption of fatty acids in Belgium and its relationship with cancer mortality. *Cancer Letters* 114, 109-111.
- Zhang, S., Folsom, A. R., Sellers, T. A., Kushi, L. H., and Potter, J. D. (1995). Better breast cancer survival for postmenopausal women who are less overweight and eat less fat. *Cancer* 76, 275-283.

### **Studies on the mechanisms underlying the influence of dietary fat on breast cancer risk**

- Abdi-Dezfouli, F., Froyland, L., Thorsen, T., Aakvaag, A., and Berge, R. K. (1997). Eicosanpentaenoic acid and sulphur substituted fatty acid analogues inhibit the proliferation of human breast cancer cells in culture. *Breast Cancer Research and Treatment* 45, 229-239.
- Chajes, V., Sattler, W., Stranzl, A., and Kostner, G. M. (1995). Influence of n-3 fatty acids on the growth of human breast cancer cells in vitro: Relationship to peroxides and vitamin-E. *Breast Cancer Research and Treatment* 34, 199-212.

- Clarke, S. D., and Jump, D. B. (1994). Dietary polyunsaturated fatty acid regulation of gene transcription. *Annual Review of Nutrition* 14, 83-98.
- Das, U. N. (1991). Tumoricidal action of cis-unsaturated fatty acids and their relationship to free radicals and lipid peroxidation. *Cancer letters* 56, 235-243.
- Etkind, P. R. (1995). Dietary effects on gene expression in mammary tumorigenesis. *Advances in Experimental Medicine and Biology* 375, 75-83.
- Fernandes, G., and Venkatraman, J. T. (1992). Possible mechanisms through which dietary lipids, calorie restriction, and exercise modulate breast cancer. In *Exercise, Calories, Fat, and Cancer*, M. M. Jacobs, ed. (New York: Plenum Press), pp. 185-201.
- German, N. S., and Johanning, G. L. (1997). Eicosapentaenoic acid and epidermal growth factor modulation of human breast cancer cell adhesion. *Cancer Letters* 118, 95-100.
- Glaspy, J. (1996). Nutritional, hormonal, and environmental mechanisms in breast tumorigenesis. In *Dietary fats, lipids, hormones, and tumorigenesis*, Heber and Kritchevsky, eds. (New York: Plenum Press), pp. 27-40.
- Hatala, M. A., Rayburn, J., and Rose, D. P. (1994). Comparison of linoleic acid and eicosapentaenoic acid incorporation into human breast cancer cells. *Lipids* 29, 831-837.
- Heber, D. (1996). Interrelationships of high fat diets, obesity, hormones, and cancer. In *Dietary Fats, Lipids, Hormones, and Tumorigenesis*, Heber and Kritchevsky, eds. (New York: Plenum Press).
- Noguchi, M., Earashi, M., Minami, M., Kinoshita, K., and Miyazaki, I. (1995). Effects of eicosapentaenoic and docosahexaenoic acid on cell growth and prostaglandin E and leukotriene B production by a human breast cancer cell line (MDA-MB-231). *Oncology* 52, 458-464.
- Noguchi, M., Rose, D. P., Earashi, M., and Miyazaki, I. (1995). The role of fatty acids and eicosanoid synthesis inhibitors in breast carcinoma. *Oncology* 52, 265-271.
- Ronai, Z., Tillotson, J., and Cohen, L. (1995). Effect of dietary fatty acids on gene expression in breast cells. *Advances in Experimental Medicine and Biology* 375, 85-95.
- Shultz, T. D. (1991). Physiological free fatty acid concentrations do not increase free estradiol in plasma. *Journal of Clinical Endocrinology and Metabolism* 72, 65-68.
- Telang, N. T., Inoue, S., Bradlow, H. L., and Osborne, M. P. (1997). Negative growth regulation of oncogene-transformed mammary epithelial cells by tumor inhibitors. *Advances in Experimental Medicine and Biology* 400A, 409-418.

[Back to the top](#)

Prepared by Julie Napieralski, Ph.D., Research Associate., BCERF.

We will make every effort to update this bibliography. If you have comments on this bibliography, or have a suggestion of a reference you would like us to review for inclusion in the bibliography, please send this information via email to: [breastcancer@cornell.edu](mailto:breastcancer@cornell.edu)

Last Update 05.06.03

© 2009 Cornell University

Program on Breast Cancer and Environmental Risk Factors  
Cornell University, College of Veterinary Medicine  
Vet Box 31, Ithaca, NY 14853-6401  
Phone: 607.254.2893; Fax: 607.254.4730  
Email: [breastcancer@cornell.edu](mailto:breastcancer@cornell.edu)

We comply with the [HONcode standard for trustworthy health](#) information: [Verify here](#).

