

# Kanker



## ***Dingen die je zou moeten weten over kanker.***

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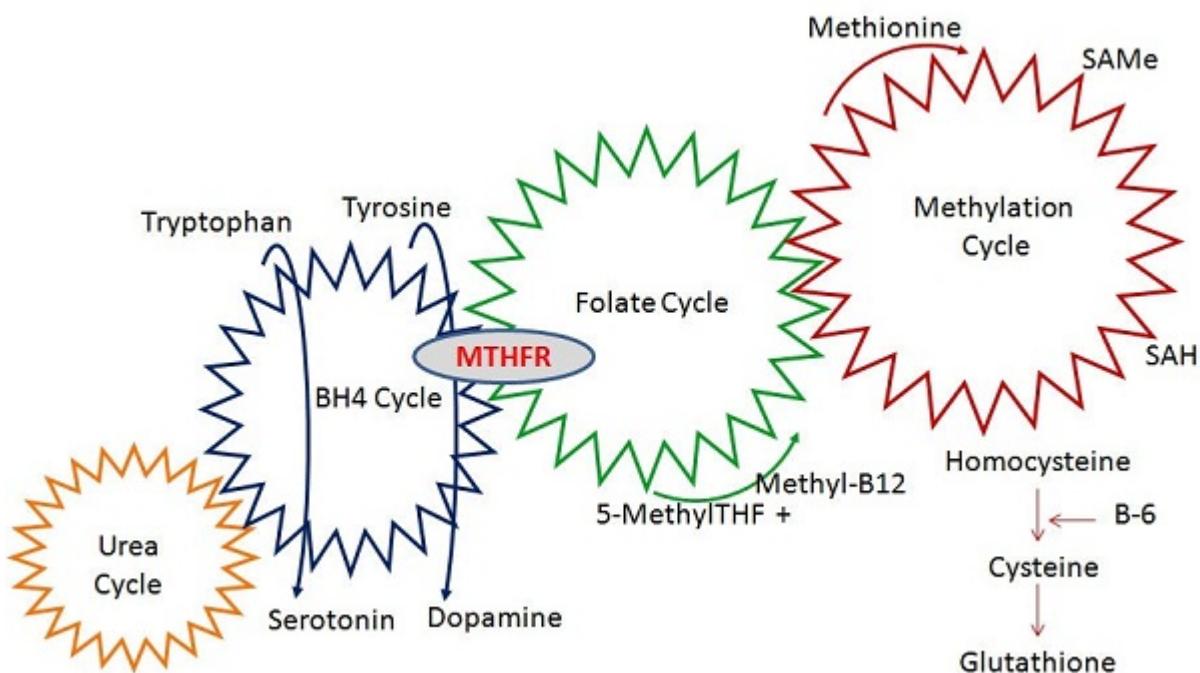
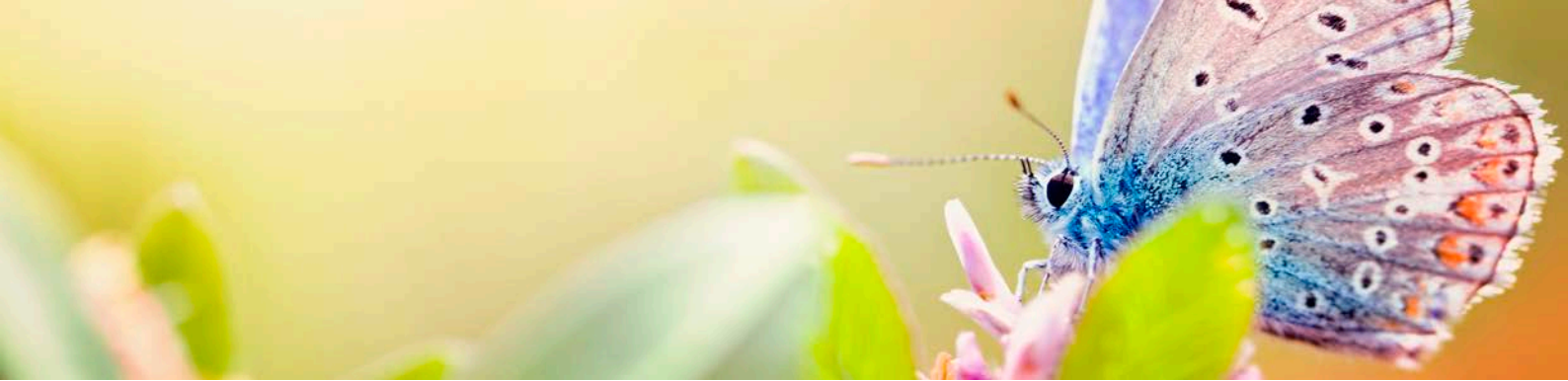
Kanker is geen genetisch defect. Het is een epigenetische ziekte. (1,2,3)  
Het is een gevolg van stress (toxische omgevingsfactoren die onze lichaam en geest moeten verwerken.) (4 t/m 10) Door de stress kunnen de 2 belangrijkste regelsystemen in ons lichaam uit evenwicht raken. De HPA -as (cortisol-productie, bijnieruitputting) en de HPT-as (hypofyse-hypothalamus-schildklier-as) en het heeft indirect een gevolg voor onze methylatie (11 t/m 15)

Algemeen:

Methylatie zorgt voor onder meer de aanmaak van antioxidanten\*, ondersteunt bij het verwerken van gifstoffen (ammonia e.d.), en het is essentieel voor de aanmaak van onze neurotransmitters (dopamine, serotonine, melatonine, noradrenaline (norepinefrine) en adrenaline,epinefrine)).

Cortisol (antistress-hormoon) wordt aangemaakt in de bijnieren uit cholesterol. Het is voor alles een natuurlijke ontstekingsremmer. Daarnaast heeft het een regulerende werking op het metabolisme van glucose, proteïne en vetzuren. Het reguleren van je stemmingen en welbehagen, je immuunsysteem, je aderen en bloeddruk en het onderhoud van weefsels zoals het beendergestel, de spieren en de huid. Tijdens stress zorgt cortisol ervoor dat je bloeddruk niet te hoog wordt en limiteert het heftige ontstekingen. Cortisol zorgt er ook nog eens voor dat er een hogere concentratie van glucose in je bloed komt wat weer voor meer energie zorgt (die je natuurlijk wel moet gebruiken want anders..vet!) Cortisol dempt de werking van het immuunsysteem, maar verlaagt tevens het aantal lactobacillen en bifodobacteriën in je darmen, waardoor je darmmicrobioom achteruitgaat. En voila, een prikkelbare darm en later een leaky gut.

Het beïnvloed tevens de gladde spieren in de darm waardoor ze aanspannen! (niet poepen kunnen/obstipatie/constipatie ( nooit kunnen achterhalen wat het verschil is.)) (16 t/m 19)



Bij de afbraak van voeding en het opruimen van troep in ons lichaam ontstaan vrije radicalen. Als je meer vrije radicalen produceert dan dat het lichaam m.b.v. anti-oxidanten kan opruimen, krijg je oxidatieve stress. Door oxidatieve stress neemt de werking van je cellen af. (20)

Werking van chemo:

De werking van de meeste chemo is gebaseerd op het leggen van crosslinks op het DNA in de cel, waardoor deze niet meer gaat delen/vermenigvuldigen. Het gevolg is heel veel oxidatieve stress, waardoor tijdens de chemo veel bijwerkingen ontstaan. Je zou tijdens de chemo dus antioxidanten moeten slikken. (21 t/m 63)

Alleen niet als de chemo bestaat uit: Mitomycine C (een eerder oude chemovorm) en Bleomycine (vooral ingezet bij testeskanker). Hun werking is namelijk juist gebaseerd op het toebrengen van oxidatieve stress aan de kankercellen, waardoor ze dood zouden moeten gaan.

Veel oncologen raden het innemen van antioxidanten af, of verklaren dat je dat dan maar op eigen risico moet doen. Dat komt door hun gebrek aan kennis. Er zijn alleen al in **Pub Med 29.594 studies (59)** terug te vinden **over vitaminen en kanker** en de

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meeste studies wijzen op een positieve relatie. Van de negatieve studies zijn de meeste onderzoeken uitgevoerd met synthetische derivaten of te hoge doseringen. We spreken in dit geval over de gevaren van selectieve wetenschap, gebaseerd op economische principes. (64,65,66)

Radiotherapie (bestralingen) werken ook d.m.v. het opwekken van oxidatieve stress door vrije radicalen. Er zijn momenteel nog onvoldoende studies die het veilig gebruik van antioxidanten samen met radiotherapie bewijzen. (67,68)

Andere vormen van conventionele kankertherapie zijn o.a. antihormonen therapie bij hormoon gerelateerde kankers. (Borst- en prostaatkanker en hun uitzaaiingen naar bot, longen en hersenen). Ook daar zijn onderzoeken terug te vinden die een positieve relatie laten zien, tussen bepaalde voedingsstoffen en kankerbestrijding.(69 t/m 104)

Een van de belangrijkste middelen om de hormonale kanker stamcellen te doden zijn [broccolipoeder](#) en [waterkerspoeder](#).(76 & 82)

Maar wat mis je bovenal?

[Jodium \(105 t/m 111\)](#)

Wat heb je nodig om jodium in je cellen te krijgen? [De antioxidanten](#). Wat heb je nodig om jodium te transporteren naar je cellen? [Oxytocinum](#). (112)

- Antioxidanten:

[SAM-e](#), glutathion, op basis van de vitamines A, B, C, D en de spoorelementen seleen en zink en bioactieve stoffen als flavonoïden uit groente, fruit en groene thee.

S-adenosylmethionine (SAMe) is een zwavelhoudend aminozuur. SAMe wordt met name in de lever gemaakt uit het essentiële aminozuur methionine en ATP (adenosinetriofosfaat). De synthese van SAMe neemt met het ouder worden geleidelijk af. SAMe beschermt de lever tegen beschadiging door onder meer cytostatica, alcohol en acetaminofen.(113)



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Bronnen:


1. Schmitt CA., Lowe SW. (1999). **Apoptosis and therapy.** *J Pathol*, 1999;187:127-137.
2. Hanahan D. & Weinberg R. (2000). **The hallmarks of Cancer.** *Cell*, Vol. 100, 57-70, January 7, 2000
3. (2006). **Mitochondrial DNA and Cancer Epidemiology Workshop.** *National Cancer Institute*, September 7-8, 2006.
4. Conklin KA. (2005). **Coenzyme q10 for prevention of anthracycline-induced cardiotoxicity.** *Integr Cancer Ther*, 2005;4(2): 110-30.
5. Conaway CC., Wang CX., et al. (2005). **Phenethyl isothiocyanate and sulforaphane and their n-acetylcysteine conjugates inhibit malignant progression of lung adenomas induced by tobacco carcinogens in A/J mice.** *Cancer Res*, 2005 65(18): 8548-8557.
6. Green J, Czanner G, et al. (2010). **Oral bisphosphonates and risk of cancer of oesophagus, stomach, and colorectum [ZOMETA Zoledroninezuur].** *BMJ*, 2010;341:c4506.
7. Chen G., Chen Z., et al. (2011). **Inhibition of mitochondrial respiration and rapid depletion of mitochondrial glutathione by  $\beta$ -phenethyl isothiocyanate: mechanisms for anti-leukemia activity.** *Antioxid Redox Signal*, 2011 Dec 15;15(12):2911-21.
8. N. Lida, et al. (2013). **Commensal bacteria control cancer response to therapy by modulating the tumor microenvironment.** *Science*, 342:967-70, 2013.
9. Thompson PA, et al. (2015). **Environmental immune disruptors, inflammation and cancer risk.** *Carcinogenesis*, 2015 Jun;36 Suppl 1:S232-53.
10. <http://www.beyondpesticides.org/health/>. Geraadpleegd op mei 2016.
11. Gidron Y1, De Couck M1, De Greve J1 **If you have an active vagus nerve, cancer stage may no longer be important.** *J Biol Regul Homeost Agents*. 2014 Apr-Jun;28(2):
12. De Couck M1, Gidron Y. j.canep.2013.04.016. Epub 2013 May 30. **Norms of vagal**

# Kanker



- nerve activity, indexed by Heart Rate Variability, in cancer patients.** *Cancer Epidemiol.* 2013 Oct;37(5):737-41. doi: 10.1016
13. De Couck M1, van Brummelen D, Schallier D, De Grève J, Gidron Y. **The relationship between vagal nerve activity and clinical outcomes in prostate and non-small cell lung cancer patients.** *Oncol Rep.* 2013 Nov;30(5):2435-41. doi: 10.3892/or.2013.2725. Epub 2013 Sep 9.
14. Marijke De Coucka\*, Raphaël Maréchalb, Sofie Moorthamersc, Jean-Luc Van Laethemb, Yori Gidronc: **Vagal nerve activity predicts overall survival in metastatic pancreatic cancer, mediated by inflammation.** *Cancer Epidemiology* 40 (2016) 47–51
15. Maegawa S., Hinkal G., et al. (2010). **Widespread and tissue specific age-related DNA methylation changes in mice.** *Genome Res*, 2010; 20: 332-40.
16. A Zeuner, R De Maria (2012). **Reprogramming: So simple, so complex.** *Cell Death & Differentiation*, 19, 1253-1254 (August 2012) | doi:10.1038/cdd.2012.64.
17. Orthica, prikkelbare darm en het zenuwstelsel, advieskaart
18. Augusto J. Montiel-Castro, Rina M. González-Cervantes, Gabriela Bravo-Ruiseco, Gustavo Pacheco-López. (2013), **The microbiota-gut-brain axis; neurobehavioral correlates, health and sociality.** *Front. Integr. Neurosci*, October 07, 2013
19. Stephen M. Collins, Michael Serette & Premysl Bercik. **The interplay between the intestinal microbiota and the brain,** *Nature Reviews Microbiology*, 10, 735-742
20. (2015). **Findings suggest link between cancer drug resistance and reactive oxygen species found in mitochondria.** *Cancer*, September 15, 2015.
21. Rusznyak St., Szent-Gyorgyi A. (1936). **Vitamin P: Flavanols as vitamins.** *Nature*. 1936;133:27.
22. Bensath A, et al. (1936). **Vitamin nature of flavones.** *Nature*, 1936; p798.
23. Kandaswami C., Perkins E., et al. (1993). **Ascorbic acid-enhanced antiproliferative effect of flavonoids on squamous cell carcinoma in vitro.** *Anticancer Drugs*, 1993;4(1):91-96.

# Kanker

- 
24. Vinson JA, Bose P. (1988). **Comparative bioavailability to humans of ascorbic acid alone or in a citrus extract.** *Am J Clin Nutr.* 1988;48(3):601-604.
  25. Vrijssen R., Everaert L., et al. (1988). **Antiviral activity of flavones and potentiation by ascorbate.** *J Gen Virol.* 1988;69 ( Pt 7)(1749-1751.
  26. Chinery R., Brockman JA., et al. (1997). **Antioxidants enhance the cytotoxicity of chemotherapeutic agents in colorectal cancer: a p53-independent induction of p21 via C/EBP-beta.** *Nat Med,* 1997;3:1233-1241.
  27. Kiyose C, et al. (1997). **Biodiscrimination of alpha-tocopherol stereoisomers in humans after oral administration.** *Am J Clin Nutr,* 1997 (Mar); 65 (3):785-9.
  28. Weijl NI., Cleton FJ., et al. (1997). **Free radicals and antioxidants in chemotherapy induced toxicity.** *Cancer Treat Rev,* 1997;23:209-240.
  29. Singh DK., Lippman SM. (1998). **Cancer chemoprevention part 1: retinoids and carotenoids and other classic antioxidants.** *Oncology,* 1998;12:1643-1660.
  30. Burton GW, et al. (1998). **Human plasma and tissue alpha-tocopherol concentrations in response to supplementation with deuterated natural and synthetic vitamin E.** *Am J Clin Nutr,* 1998; 67:669-84.
  31. Rubio IT., Cao Y., et al. (1998). **Effect of glutamine on methotrexate efficacy and toxicity.** *Ann Surg,* 1998;227(5): 772-8, discussion 778-80.
  32. Traber MG, et al. (1998). **Synthetic as compared with natural vitamin E is preferentially excreted as a-CEHC in human urine: studies using deuterated a-tocopheryl acetate.** *FEBS Letters,* 1998 (Oct 16); 437:145-8.
  33. Labriola D., Livingston R. (1999). **Possible interactions between dietary antioxidants and chemotherapy.** *Oncology,* 1999;13:1003-1012.
  34. Prasad KN., Kumar AK., et al. (1999). **High doses of multiple antioxidant vitamins: essential ingredients in improving the efficacy of standard cancer therapy.** *J Am Coll Nutr,* 1999;18:13-25.



# Kanker

- 
35. Patrick L. (2000). **Beta-carotene: the controversy continues.** *Altern Med Rev*, 2000;5(6):530- 545.
36. Jung YD., Ellis LM. (2001). **Inhibition of tumour invasion and angiogenesis by epigallocatechin gallate (EGCG), a major component of green tea.** *Int J Exp Pathol*, 2001 Dec;82(6):309-16.
37. Graziano F., Bissoni R., et al. (2002). **Potential role of levocarnitine supplementation for the treatment of chemotherapy-induced fatigue in non-anaemic cancer patients.** *Br J Cancer*, 2002;86(12): 1854-7.
38. Seow A., Yuan JM., et al. (2002). **Dietary isothiocyanates, glutathione S-transferase polymorphisms and colorectal cancer risk in the Singapore Chinese Health Study.** *Carcinogenesis*, 2002;23(12): 2055-261.
39. Koepke CM et al. (2003). **Results of clinical trials with antioxidants: a review.** *GlycoScience & Nutrition (Official Publication of GlycoScience com: The Nutrition Science Site)*, 2003;4(3):1-7.
40. Pace A., Savarese A., et al. (2003). **Neuroprotective effect of vitamin E supplementation in patients treated with cisplatin chemotherapy.** *J Clin Oncol*, 2003;21(5): 927-31.
41. Hong F., Hansen RD., et al. (2003). **Beta-glucan functions as an adjuvant for monoclonal antibody immunotherapy by recruiting tumoricidal granulocytes as killer cells.** *Cancer Res.*, 2003 Dec 15;63(24):9023-31.
42. Weijl NI., Elsendoorn TJ., et al. (2004). **Supplementation with antioxidant micronutrients and chemotherapy-induced toxicity in cancer patients treated with cisplatin-based chemotherapy: a randomised, double-blind, placebo-controlled study.** *Eur J Cancer*, 2004;40(11): 1713-23.
43. Miyoshi N., Naniwa K., et al. (2005). **Alpha-tocopherol-mediated caspase-3 up-regulation enhances susceptibility to apoptotic stimuli.** *Biochem Biophys Res Commun*, 2005 Aug 26 ; 334(2):466-73.
44. Wu HT., Lin SH., et al. (2005). **Inhibition of cell proliferation and in vitro markers of angiogenesis by indole-3-carbinol, a major indole metabolite present in cruciferous vegetables.** *J Agric Food Chem.*, 2005 Jun 29;53(13)5164-9.


# Kanker



45. Jos M. Estrelaa, Angel Ortega, et al. (2006). **Glutathione in cancer biology and therapy.** *Clinical Laboratory Sciences*, Volume 43, Issue 2 March 2006, pages 143-181.
46. Block KI., Koch AC., et al. (2007). **Impact of antioxidant supplementation on chemotherapeutic efficacy: a systematic review of the evidence from randomized controlled trials.** *Cancer Treat Rev.*, 2007 Aug;33(5):407-18.
47. Block KI., Koch AC., et al. (2008). **Impact of antioxidant supplementation on chemotherapeutic toxicity: A systematic review of the evidence from randomized controlled trials.** *International Journal of Cancer Volume*, 123, Issue 6, pages 1227-1239, 15 September 2008.
48. Hardy ML. (2008). **Dietary Supplement Use in Cancer Care: Help or Harm.** *Hematol Oncol Clin N Am*, 22 (2008) 581-617.
49. Lara Gibellini (2010). **Interfering with ROS metabolism in cancer cells: the potential role of quercetin.** *Cancers*, 2010, 2, 1288-1311.
50. Melanie Schmidt, Nadja Pfetzer, et al. (2011). **Effects of a ketogenic diet on the quality of life in 16 patients with advanced cancer: A pilot trial.** *Nutrition & Metabolism*, 2011, 8:54.
51. Piyaviriyakul S., et al. (2011). **Anti-angiogenic activity and intracellular distribution of epigallocatechin-3-gallate analogs.** *Biol Pharm Bull*, 2011;34(3):396-400.
52. Siddiqui RA, Harvey KA, et al. (2011). **Docosahexaenoic acid: A natural powerful adjuvant that improves efficacy for anticancer treatment with no adverse effects.** *Nov*;37(6):399- 412.
53. Kim JL., Park SH., et al. (2012). **Osteogenic activity of silymarin through enhancement of alkaline phosphatase and osteocalcin in osteoblasts and tibia-fractured mice.** *Exp Biol Med (Maywood)*, 2012 Apr;237(4):417-28.
54. Zohreh Ghoreishi (2012). **Omega-3 fatty acids are protective against paclitaxel-induced peripheral neuropathy: A randomized double-blind placebo controlled trial.** *BMC Cancer*, 2012 12:355.



# Kanker

- 
55. Watson J. (2013). **Oxidants, antioxidants and the current incurability of metastatic cancers.**
56. S. Viaud et al. (2013). **The intestinal microbiota modulates the anticancer immune effects of cyclophosphamide.** *Science*, 342:971-76, 2013.
57. Mohd Fozi Nfetr, et al. (2013). **Milk thistle: a future potential anti-osteoporotic & fracture healing agent.** *Curr Drug Targets*, 2013 Oct 2.
58. Masashi Kana (2014). **Therapeutic applications of curcumin for patients with pancreatic cancer.** *World J Gastroenterol.*, 2014 Jul 28; 20(28):9384-9391.
59. Olaf Kelber (2014). **Valerian: no evidence for clinically relevant interactions.** *Evidence-Based Complementary and Alternative Medicine*, Volume 2014 (2014), Article ID 879396, 8 pages  
*Open Biol.*, 2013 Royal Society Publishing.
60. Emily Ho (2015). **Beyond prevention: Sulforaphane may find possible use for cancer therapy.** *ScienceDaily*, 12 January 2015, 541-737-9559.
61. Kelly N.H. Nudelman, et al. (2015). **Cerebral perfusion and gray matter changes associated with chemotherapy-induced peripheral neuropathy.** *American Society of Clinical Oncology*.
62. Safaa Yehia Eid, Mahmoud Zaki El-Readi, et al. (2015). **Natural products modulate the multifactorial multidrug resistance of cancer.** *Pharmacology & Pharmacy*, Vol. 06 No. 03 (2015).
63. Gabriël Devriendt, **Do's and don't's bij kanker: toepassing bij borst-, cervix-, darm-, long- en leverkanker.** Seminar Nutrphyt mei-juni 2016.
64. Neal S. Young, John P.A. Ioannidis, et al. (2008). **Why current publication practices may distort science.** *PLoS Medicine*, October 2008, Volume 5, Issue 10, e201, p1418-1422.
65. (2009). **Pharmaceutical advertising biases journals against vitamin supplements.** *Orthomolecular Medicine News Service*, 5th February 2009.

## Kanker

- 66.(2015). **Sharing clinical trial data: Maximizing benefits, minimizing risk.** Washington, DC: The National Academies Press. *IOM (Institute of Medicine)*.
- 67.Edith Heinrich, Nikola Getoff (2003). **Mitomycin c-activity effected by vitamins B1, C, E and - carotene under irradiation with  $\gamma$ -rays.** *Z. Naturforsch.* 58c, 244D248 (2003).
- 68.Shan GY., Zhang S., et al. (2011). **Clinical evaluation of oral Fructus bruceae oil combined with radiotherapy for the treatment of esophageal cancer.** *Chin J Integr Med*, 2011 Dec;17(12):933-6.
- 69.Bracke ME, Depypere TH, et al. (1999). **Influence of tangeretin on tamoxifen's therapeutic benefit in mammary cancer.** *J Natl Cancer Inst.*, 1999 Feb 17;91(4):354-9.
- 70.Cover CM., et al. (1999). **Indole-3-carbinol and tamoxifen cooperating to suppress human breast cancer growth.** *Cancer Research*, (March 15, 1999) 59: 1244-1251
- 71.VandeCreek L., Rogers E., et al. (1999). **Use of alternative therapies among breast cancer outpatients compared with the general population.** *Altern Ther Health Med*, 1999;5:71-76.
- 72.Mediavilla MD., Cos S., et al. **Melatonin increases p53 and p21WAF1 expression in MCF-7 human breast cancer cells in vitro.** *Life Sci*, 1999;65:415-420.
- 73.Kenneth D, R. Setchell (2001). **Soy isoflavones - benefits and risks from nature's selective estrogen.** *Journal of the American College of Nutrition*, Vol. 20, No. 90005, 354S-362S (2001).
- 74.Jodoin J., Demeule M., et al. (2002). **Inhibition of the multidrug resistance P-glycoprotein activity by green tea polyphenols.** *Biochim Biophys*, 2002, Jan 30. 1542(1-3):149-159.
- 75.Fleischauer AT., et al. (2003). **Antioxidant supplements and risk of breast cancer recurrence and breast cancer-related mortality among postmenopausal women.** *Nutr Cancer*, 2003; 46(1):15-22.

## Kanker

76. Xiao D., Srivastava SK., et al. (2003). **Allyl isothiocyanate a constituent of cruciferous vegetables inhibits proliferation of human prostate cancer cells by causing G2/M arrest and inducing apoptosis.** *Carcinogenesis*, 2003;24(5):891-897.
77. Manusirivithaya S., Sripramote M., et al. (2004). **Antiemetic effect of ginger in gynecologic oncology patients receiving cisplatin.** *Int J Gynecol Cancer*, 2004;14(6): 1063-9.
78. Johnston N. (2004). **Sulforaphane halts breast cancer cell growth.** *Drug Discov Today*, 2004;9(21): 908.
79. A Bardin, et al. (2004). **Loss of ER- $\beta$  expression as a common step in estrogen-dependent tumor Progression.** *Endocr Relat Cancer*, 2004 Sep;11(3):537-51.
80. Morgan G., Ward R., et al. (2004). **The contribution of cytotoxic chemotherapy to 5-year survival in adult malignancies.** *Clin Oncol (R Coll Radiol)*, 2004 Dec; 16(8):549-60.
81. Singh SV., Srivastava SK., et al. (2005). **Sulphoraphane-induced cell death in human prostate cancer cells is initiated by reactive oxygen species.** *J Biol Chem*, 2005; 280(20):19911-19924.
82. Rose P., Huang Q., et al (2005). **Broccoli and watercress suppress matrix metalloproteinase- 9 activity and invasiveness of human MDA-MB-231 breast cancer cells.** *Toxicol Appl Pharmacol*, 2005;S0041-008X.
83. Ralph W. Moss (2006). **Should patients undergoing chemotherapy and radiotherapy be prescribed antioxidants?** *Integrative Cancer Therapies*, 5(1); 2006 pp. 63-82.
84. Cavalieri E., Rogan E. (2006). **Catechol quinones of estrogens in the initiation of breast, prostate, and other human cancers: keynote lecture.** *Ann N Y Acad Sci.*, 2006 Nov;1089:286- 301.
85. S Fan, Q Meng, et al. (2006). **BRCA1 and BRCA2 as molecular targets for phytochemicals indole-3-carbinol and genistein in breast and prostate cancer cells.** *British Journal of Cancer*, (2006) 94, 407-426.
86. Grace L. Lu-Yao, Peter C. Albertsen, et al. (2008). **Survival following primary androgen deprivation therapy among men with localized prostate cancer.** *MD JAMA*, 2008;300(2):173-181



# Kanker

87. Christopher I. Li, et al. (2009). **Adjuvant hormonal therapy for breast cancer and risk of hormone receptor-specific subtypes of contralateral breast cancer.** *Cancer Research*, 10.1158/0008-5472.CAN-09-1355 (August 25, 2009)
88. Guha N., Kwan ML., et al. (2009). **Soy isoflavones and risk of cancer recurrence in a cohort of breast cancer survivors: the Life After Cancer Epidemiology study.** *Breast Cancer Res Treat*, 2009 Nov; 118(2):395-405.
89. P Bougnoux, N Hajjaji, et al. (2009). **Improving outcome of chemotherapy of metastatic breast cancer by docosahexaenoic acid: a phase II trial.** *British Journal of Cancer*, (2009) 101, 1978-1985
90. (2010). **Vitamin reduce the risk of breast cancer.** *American Association for Cancer Research*, 101st annual meeting, 2010.
91. Karimi-Busheri et al. (2010). **Senescence evasion by MCF-7 human breast tumor-initiating cells.** *Breast Cancer Research*, 2010, june
92. Renea A Taylor (2010). **Stem cells in prostate cancer: treating the root of the problem.** *Endocrine related Cancer*, (2010) 17 R273-R285.
93. Xinmei Kang, Qingyuan Zhang, et al. (2010). **Effect of soy isoflavones on breast cancer recurrence and death for patients receiving adjuvant endocrine therapy.** *Canadian Medical Association CMAJ*, November 23, 2010.
94. Mara M Epstein, et al. (2011). **Dietary zinc and prostate cancer survival in a Swedish cohort.** *American Society for Nutrition*.
95. Buck K., Zaineddin AK., et al. (2011). **Estimated enterolignans, lignan-rich foods, and fibre in relation to survival after postmenopausal breast cancer.** *Br J Cancer*, 2011 sep 13.
96. Bergamaschi A., Katzenellenbogen BS. (2012). **Tamoxifen downregulation of miR-451 increases 14-3-3 $\zeta$  and promotes breast cancer cell survival and endocrine resistance.** *Oncogene*, 2012 Jan 5;31(1):39-47. doi: 10.1038/onc.2011.223.
97. Yu Sun, et al. (2012). **Treatment-induced damage to the tumor microenvironment promotes prostate cancer therapy resistance through WNT16B.** *Nature Medicine*, 18, 1359- 1368 (2012).

# Kanker

98. Allal Ouhtit, et al. (2013). **Simultaneous inhibition of cell-cycle, proliferation, survival, metastatic pathways and induction of apoptosis in breast cancer cells by a phytochemical super-cocktail: genes that underpin its mode of action.** *J Cancer*, 2013; 4(9):703-715.
99. Kolenko et al. (2013). **Zinc and zinc transporters in prostate carcinogenesis.** *Nat Rev Urol.*, 2013 Apr;10(4):219-26.
100. **Breast and uterine effects of soy isoflavones.** *The Journal of Clinical Endocrinology & Metabolism*, Vol. 89, No. 7 3462-3468.
101. Kotsopoulos J., Zhang S., et al. (2014). **BRCA1 mRNA levels following a 4-6-week intervention with oral 3,3'-diindolylmethane.** *BJ Cancer*, 2014 Sep 23;111(7):1269-74.
102. Singh CK., Pitschmann A., et al. (2014). **Resveratrol-zinc combination for prostate cancer management.** *Cell Cycle*, 2014 Jun 15;13(12):1867-74.
103. Litovkin K., Joniau S., et al. (2015). **DNA methylation-guided prediction of clinical failure in high-risk prostate cancer.** *PLoS One*, 2015 Jun 18;10(6).
104. <http://global.onclive.com/conference-coverage/AACR-2016/70-gene-signature-identifies-breast-cancer-subgroup-unlikely-to-benefit-from-adjuvant-chemo>. Geraadpleegd op mei 2016.
105. Dr. R. Verheesen en dr. C.M. Schweitzer, **Het jodium tekort is terug**, Medisch Contact, nr. 43, 21 oktober 2008
106. Swietaszczyk C<sup>1</sup>, Pilecki SE, **Two hundred years after discovery of iodine--less known functions of the element in human organism.** *Przegl Lek.* 2012;69(12):1280-2
107. <http://www.optimox.com/iodine-study-4>: The Wolff-Chaikoff Effect: Crying Wolff, Dr. G. Abraham, MD.
108. Calil-Silveira J<sup>1</sup>, Serrano-Nascimento C<sup>1</sup>, Kopp PA<sup>2</sup>, Nunes MT<sup>3</sup>. **Iodide excess regulates its own efflux: a possible involvement of pendrin.** *Am J Physiol Cell*

# Kanker



Physiol. 2016 Apr 1;310(7):C576-82. doi: 10.1152/ajpcell.00210.2015. Epub 2016 Jan 20.

109. Brownstein, D. **Iodine, Why You Need It. Why You Can't Live Without It**, Editions 1-4, Medical Alternative Press, Michigan, 2006
110. Abraham, G.E., Flechas, J.D. Hakala, J.C. " **Optimum Levels of Iodine for Greatest Mental and Physical Health.**" *The Original Internist*, 9:5-20,2002
111. [Http://www.breastcancerchoices.org](http://www.breastcancerchoices.org)
112. Lund TD, Hinds LR, Handa RJ. **The androgen 5 $\alpha$ hadihydrotestosterone and its metabolite 5 $\alpha$ -androstan-3 $\beta$ , 17 $\beta$ -diol inhibit the hypothalamo-pituitary-adrenal response to stress by acting through estrogen receptor beta-expressing neurons in the hypothalamus.** *J Neurosci.* 2006 Feb 1;26(5):1448-56.  
Oxytocin has been shown to support thyroid function by improving the import of iodine into thyroid cells.

Mato JM et al. (2013) **S-adenosylmethionine metabolism and liver disease.** *Ann Hepatol.* 2013;12(2):183-