


Diagnostik und Therapie früher und fortgeschrittener Mammakarzinome

Komplementäre Therapie „Survivorship“



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Komplementäre Therapien

Hormontherapie

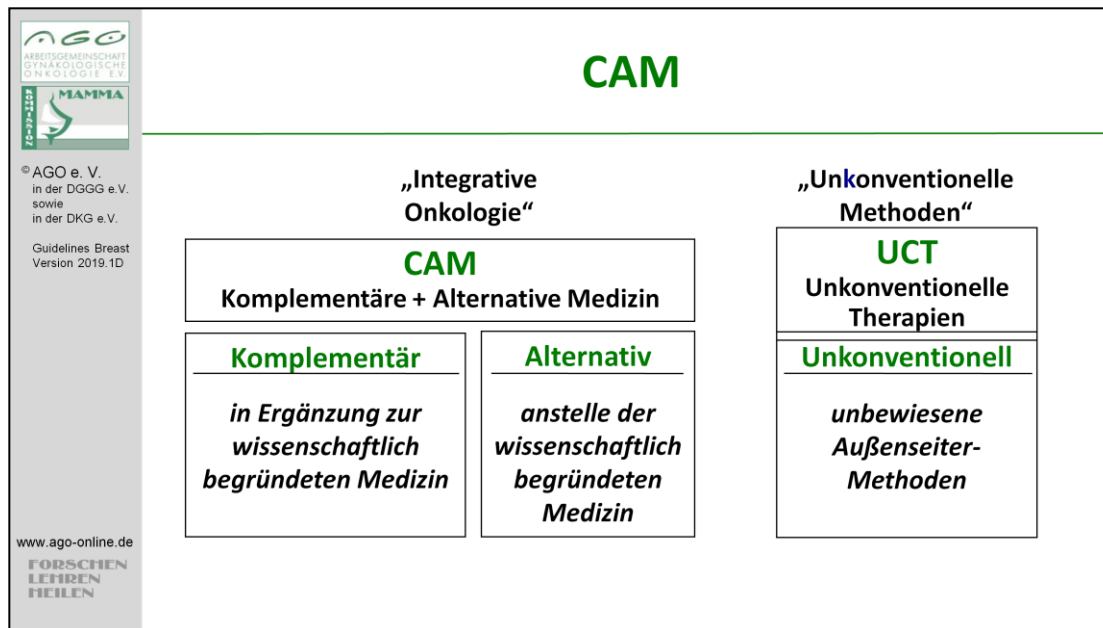
„Survivorship“ (Rezidiv-Prävention)

- **Versionen 2002–2018:**
**Albert / Bauerfeind / Blohmer / Fersis / Friedrich /
Gerber / Göhring / Hanf / Janni / Kümmel / Lück /
von Minckwitz / Oberhoff / Scharl / Schmidt /
Schütz / Thomssen**

- **Version 2019:**
Nitz / Rhiem

Screened Data Sources:

Pubmed	2012 - 01/2019
ASCO	2015 – 2018
SABCS	2015 – 2018
EBCC	2015 – 2018
Cochrane library:	summary Jan. 2019:




Komplementäre Verfahren werden parallel zur konventionellen Therapie angewendet und unterscheiden sich von alternativen Verfahren dadurch, dass sie den Wert der konventionellen Verfahren nicht in Frage stellen, sondern sich als Ergänzung verstehen

Onkoleitlinienprogramm

1. Witt CM et al.. A Comprehensive Definition for Integrative Oncology. J Natl Cancer Inst Monogr (2017) 2017(52): lgx012

“Integrative oncology is a patient-centered, evidence-informed field of cancer care that utilizes mind and body practices, natural products, and/or lifestyle modifications from different traditions alongside conventional cancer treatments. Integrative oncology aims to optimize health, quality of life, and clinical outcomes across the cancer care continuum and to empower people to prevent cancer and become active participants before, during, and beyond cancer treatment.”



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Allgemein

- CAM anstelle lokoregionärer Interventionen
- CAM anstelle systemischer Therapie
- Patienten sollten nach ihrer Nutzung von komplementären und alternativen Therapien befragt werden.
- Diagnostische Verfahren im Zusammenhang mit komplementären und alternativen Therapiekonzepten ohne Evidenz (z.B. Irisdiagnostik, Bioresonanz) sollen nicht empfohlen werden.
- *Unter Systemtherapie:*
Besondere Beachtung gilt möglichen Medikamenteninteraktionen

Oxford		
LoE	GR	AGO
2b	B	--
2b	B	--

1. Saquib J, Parker BA, Natarajan L, et al. Prognosis following the use of complementary and alternative medicine in women diagnosed with breast cancer. Complement Ther Med. 2012 Oct;20(5):283-90. doi: 10.1016/j.ctim.2012.04.002. Epub 2012 Apr 27.
2. Guha N, Kwan ML, Quesenberry CP, et al: 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;118(2):395–405, pmid:19221874.
3. Johnson SB et al.. Use of Alternative Medicine for Cancer and Its Impact on Survival. JNCI J Natl Cancer Inst (2018) 110(1): dxj145.
4. Fremd C et al.. Use of complementary and integrative medicine among German breast cancer patients: predictors and implications for patient care within the PRAEGNANT study network. Arch Gynecol Obstet. 2017 May;295(5):1239-1245. doi: 10.1007/s00404-017-4348-2. Epub 2017 Mar 22.
5. Samuels N et al.. Unmonitored use of herbal medicine by patients with breast cancer: reframing expectations. J Cancer Res Clin Oncol (2017) 143:2267–2273
6. Smith PJ et al.. Complementary and alternative medicine use by patients receiving curative-intent chemotherapy. Asia-Pacific Journal of Clinical Oncology 2016; 12: 265–274
7. Greenlee H et al.. Association Between Complementary and Alternative Medicine Use and Breast Cancer Chemotherapy Initiation: The Breast Cancer Quality of Care (BQUAL) Study. JAMA Oncol. 2016 Sep 1;2(9):1170-6. doi: 10.1001/jamaoncol.2016.0685

8. Johnson SB et al. Complementary Medicine, Refusal of Conventional Cancer Therapy, and Survival Among Patients With Curable Cancers. JAMA Oncol. doi:10.1001/jamaoncol.2018.2487 published online July 19, 2018.
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Statement zu diagnostischen Verfahren: analog S3-Leitlinie, Konsensbasierte Empfehlung 6.53, S. 302

Komplementäre Therapien prä- und postoperativ			
	Oxford		
	LoE	GR	AGO
Präoperativ			
■ Hypnose (reduziert Ängste, Schmerz, Übelkeit)	1b	B	+
Postoperativ			
■ Akupunktur			
■ bei Schmerzen, Ängstlichkeit	1b	B	+/-
■ bei Übelkeit, Erbrechen	2b	B	+
■ Massage Therapie (bei Schmerzen)	2b	C	+/-
■ Frühzeitige postoperative Bewegungstherapie beugt Dysfunktion der oberen Extremität vor CAVE: vermehrt Wundsekret	1a	A	+
■ Körperliche Aktivität (zur Reduktion des sek. Lymphödems)	1a	A	+
■ Prophylaktische Lymphdrainage	1b	B	-
■ Yoga (bei Arm- und Schulterschmerzen)	2b	C	+
■ Musiktherapie (Schmerzreduktion nach Mastektomie)	2b	C	+/-

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Hypnosis

1. Cramer H, Lauche R, Paul A, et al: Hypnosis in Breast Cancer Care: A Systematic Review of Randomized Controlled Trials. Integr Cancer Ther. 2015 Jan;14(1):5-15. Epub 2014 Sep 18.
2. Montgomery GH, David D, Kangas M, et al. (2014) Randomized Controlled Trial of a Cognitive-Behavioral Therapy Plus Hypnosis Intervention to Control Fatigue in Patients Undergoing Radiotherapy for Breast Cancer. JCO DOI 10.12007JCO.2013.49.3437
3. Montgomery GH, Bovbjerg DH, Schnur JB et al. (2007): A randomized clinical trial of a brief hypnosis intervention to control side effects in breast surgery patients. J Nat Cancer Inst; 99:1304–1312.
4. Schnur JB, Bovbjerg DH, David D et al. (2008): Hypnosis decreases presurgical distress in excisional breast biopsy patients. Anesth Analg , 106(2):440-4
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Acupuncture and Postoperative Nausea and Vomiting / Pain

1. Mallory MJ et al.: Acupuncture in the postoperative setting for breast cancer patients: a feasibility study. Am J Chin Med. 2015;43(1):45-56.
2. Chao LF et al.: The efficacy of acupoint stimulation for the management of therapy-related adverse events in patients with breast

cancer: a systematic review. *Breast Cancer Res Treat* (2009) 118:255–267.

3. Quinlan-Woodward J, Gode A, Dusek JA: Assessing the Impact of Acupuncture on Pain, Nausea, Anxiety, and Coping in Women Undergoing a Mastectomy. *Oncol Nurs Forum*. 2016 Nov 1;43(6):725-732.
4. Giron PS, Haddad CA, Lopes de Almeida: Effectiveness of acupuncture in rehabilitation of physical and functional disorders of women undergoing breast cancer surgery. *Support Care Cancer*. 2016 Jun;24(6):2491-6.
5. Chiu HY, Hsieh YJ, Tsai PS. Systematic review and meta-analysis of acupuncture to reduce cancer-related pain. *Eur J Cancer Care (Engl)*. 2017 Mar;26(2). doi: 10.1111/ecc.12457. Epub 2016 Feb 7

Massage Therapy

1. Lee SH, Kim JY, Yeo S et al: Meta-Analysis of Massage Therapy on Cancer Pain. *Integr Cancer Ther*. 2015 Jul;14(4):297-304.
2. Pan YQ, Yang KH, Wang YL, et al: Massage interventions and treatment-related side effects of breast cancer: a systematic review and meta-analysis. *Int J Clin Oncol*. 2014 Oct;19(5):829-41.

Postoperative exercise

1. De Groef A, Van Kampen M, Dieltjens E, et al. Effectiveness of postoperative physical therapy for upper-limb impairments after breast cancer treatment: a systematic review. *Arch Phys Med Rehabil*. 2015 Jun;96(6):1140-53. doi: 10.1016/j.apmr.2015.01.006. Epub 2015 Jan 13. Review.
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4. Anderson RT, Kimmick GG, McCoy TP, et al. A randomized trial of exercise on well-being and function following breast cancer surgery: the RESTORE trial. *J Cancer Surv* 2012;6(2):172-81
5. Eyigor S, Uslu R, Apaydin S, et al. Can Yoga have any effect on shoulder and arm pain and quality of life in patients with breast cancer? A randomized, controlled, single-blind trial. *Complementary Therapies in Clinical Practice* 2018;32:40-45.

Sekundäres Lymphödem

1. Baumann FT, Reike A, Reimer V et al: Effects of physical exercise on breast cancer –related secondary lymphedema : a systematic review *Br Ca res Treatment* 2018; 170: 1-13

Prophylactic lymph drainage

1. Devoogdt N, Christiaens MR, Geraerts I, et al: Effect of manual lymph drainage in addition to guidelines and exercise therapy on arm lymphoedema related to breast cancer: randomised controlled trial. *BMJ* 2011;343:d5326 doi: 10.1136/bmj.d5326
2. Li L, Yuan L, Chen X: Current Treatments for Breast Cancer-Related Lymphoedema: A Systematic Review. *Asian Pac J Cancer Prev*. 2016 Nov 1;17(11):4875-4883.

Music therapy

1. Li, X.M., Yan H, Zhou KN, et al. *Effects of music therapy on pain among female breast cancer patients after radical mastectomy: results from a randomized controlled trial*. *Breast Cancer Res Treat*, 2011. 128(2): p. 411-9.
2. Binns-Turner, P.G., Wilson LL, et al. *Perioperative music and its effects on anxiety, hemodynamics, and pain in women undergoing mastectomy*. *Aana j*, 2011. 79(4 Suppl): p. S21-7.
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Komplementäre Therapien

Behandlungsphase – Einfluss auf Toxizität I

Bei laufender onkologischer Standardtherapie:

CAVE: Interaktionen beachten!

- **Mistellektine (Viscum album)**
zur Reduktion therapieassoziiierter Nebenwirkungen
- **Thymuspeptide**
verringern Risiko schwerer Infektionen
- **Ginseng**
verringert Fatigue; (Cave: interagiert mit P Enzyme, z.B. CYP3A4)
- **Ganoderma Lucidum**
verringert Fatigue; (Cave: inhibiert P Enzyme, z.B. CYP3A4)
- **L-Carnitin**
Prävention der Toxizität, verbessert periphere Neuropathie
verringert Fatigue
- **Curcumin**
vermindert Radiodermatitis
- **Ingwer**
komplementär zu Leitlinien-gerechter Medikation gegen Chemotherapie induzierte Übelkeit/Erbrechen; (Cave: Wechselwirkungen)

Oxford		
LoE	GR	AGO
1a	B	+/-
2a	B	+/-
2b	C	-
2b	C	-
1b	B	--
1b	B	-
1b	B	+/-
1b	C	+/-

General

1. Li Y, Wang J, Lin F: A Methodology for Cancer Therapeutics by Systems Pharmacology-Based Analysis: A Case Study on Breast Cancer-Related Traditional Chinese Medicines. PLoS One. 2017 Jan 9;12(1):e0169363.
2. Farahmand L, Darvishi B, Majidzadeh-A K: Naturally occurring compounds acting as potent anti-metastatic agents and their suppressing effects on Hedgehog and WNT/ β -catenin signalling pathways. Cell Prolif. 2017 Feb;50(1). doi: 10.1111/cpr.12299.
3. Cramer H, Lauche R, Klose P: Yoga for improving health-related quality of life, mental health and cancer-related symptoms in women diagnosed with breast cancer. Cochrane Database Syst Rev. 2017 Jan 3;1:CD010802.
4. Neuhouwer ML, Smith AW, George SM: Use of complementary and alternative medicine and breast cancer survival in the Health, Eating, Activity, and Lifestyle Study. Breast Cancer Res Treat. 2016 Dec;160(3):539-546.

Mistletoe

1. Marvibaigi M, Supriyanto E, Amini N, et al: Preclinical and clinical effects of mistletoe against breast cancer. BioMed research international 2014;2014:785479.
2. Shneerson C, Taskila T, Gale N, et al: The effect of complementary and alternative medicine on the quality of life of cancer survivors: A systematic review and meta-analyses. Complementary therapies in medicine 2013;21:417-429.
3. Troger W, Zdravle Z, Stankovic N, et al: Five-year follow-up of patients with early stage breast cancer after a randomized study

comparing additional treatment with viscum album (l.) extract to chemotherapy alone. Breast cancer : basic and clinical research 2012;6:173-180.

4. Troger W, Zdrale Z, Tisma N, et al: Additional therapy with a mistletoe product during adjuvant chemotherapy of breast cancer patients improves quality of life: An open randomized clinical pilot trial. Evidence-based complementary and alternative medicine : eCAM 2014;2014:430518.
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6. Pelzer F, Tröger W. Complementary Treatment with Mistletoe Extracts During Chemotherapy: Safety, Neutropenia, Fever, and Quality of Life assessed in a randomized study. JAC 2018;24:954-961.

Thymus

1. Wolf E, Milazzo S, Boehm K, et al. Thymic peptides for treatment of cancer patients. Cochrane Database of Systematic Reviews 2012, Issue 2. Art. No.: CD003993. DOI: 10.1002/14651858.CD003993.pub3.

Ginseng, Ganoderma lucidum

1. Leggett S1, Koczwara B, Miller M. The impact of complementary and alternative medicines on cancer symptoms, treatment side effects, quality of life, and survival in women with breast cancer--a systematic review. Nutr Cancer. 2015;67(3):373-91.
2. Bao, P. P., W. Lu, Y. Cui, Y et al(2012). "Ginseng and Ganoderma lucidum use after breast cancer diagnosis and quality of life: a report from the Shanghai Breast Cancer Survival Study." PLoS One 7(6): e39343.
3. Jin X, Ruiz Beguerie J, Sze Daniel M-y et al: Ganoderma lucidum (reishi mushroom) for cancer treatment. Cochrane Database of Systematic Reviews 2012
4. JL Ryan et al.: Ginger (Zingiberofficinale) reduces acute chemotherapy-induced nausea: a URCC CCOP study of 576 patients. Support Care Cancer 2012;20(7):1479-89
5. Karimi N, Roshan VD: Change in adiponectin and oxidative stress after modifiable lifestyle interventions in breast cancer cases. Asian Pacific journal of cancer prevention : APJCP 2013;14:2845-2850.

L-Carnitine

1. Hershman DL, Unger JM, Crew K et al.: Randomized double-blind placebo-controlled trial of acetyl-L-carnitine for the prevention of taxane-induced neuropathy in women undergoing adjuvant breast cancer therapy. J Clin Oncol. 2013 Jul 10;31(20):2627-33

2. Cruciani RA, Zhang JJ, Manola J et al. L-carnitine supplementation for the management of fatigue in patients with cancer: an eastern cooperative oncology group phase III, randomized, double-blind, placebo-controlled trial. J Clin Oncol. 2012 Nov 1;30(31):3864-9

Curcumin

1. Ryan, J. L., C. E. Heckler, M. Ling, et al (2013). "Curcumin for radiation dermatitis: a randomized, double-blind, placebo-controlled clinical trial of thirty breast cancer patients." Radiat Res 180(1): 34-43.
2. Kumar P, Kadakol A, Shasthrula P, et al: Curcumin as an adjuvant to breast cancer treatment. Anti-cancer agents in medicinal chemistry 2015
3. Bandyopadhyay D: Farmer to pharmacist: Curcumin as an anti-invasive and antimetastatic agent for the treatment of cancer. Frontiers in chemistry 2014;2:113.

Ingwer

1. Thamlikitkul L, Srimuninnimit V, Akewanlop C, et al. Efficacy of ginger for prophylaxis of chemotherapy-induced nausea and vomiting in breast cancer patients receiving adriamycin-cyclophosphamide regimen: a randomized, double-blind, placebo-controlled, crossover study. Support Care Cancer. 2017 Feb;25(2):459-464. doi: 10.1007/s00520-016-3423-8. Epub 2016 Oct 6.
2. Sanaati F, Najafi S, Kashaninia Z, et al. Effect of Ginger and Chamomile on Nausea and Vomiting Caused by Chemotherapy in Iranian Women with Breast Cancer. Asian Pac J Cancer Prev. 2016;17(8):4125-9.



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Komplementäre Therapien

Behandlungsphase – Einfluss auf Toxizität II

	Oxford		
	LoE	GR	AGO
▪ Antioxidanzien (Suppl.)			
▪ verschied. antioxidative Extrakte zur Minderung anthracyclinbedingter Cardiotoxizität	1b	B	-
	2b	B	+/-
▪ Hochdosiert Vitamin C	1b	C	-
▪ Vitamin E	2b	D	-
▪ Selen (zur Linderung von Nebenwirkungen)	1b	B	-
▪ Co-Enzym Q 10 (Fatigue, Lebensqualität)	1b	B	-
▪ Proteolytische Enzyme (gegen Chemotherapie-induzierte Toxizität)	3b	B	-
▪ Chinesische Medizin (Besserung der Wundheilung)	1b	B	-*inf
▪ Sauerstoff- und Ozon-Therapie	5	D	--
▪ Kurzzeitfasten (QoL, Fatigue)	3b	C	+/-*

*inf: Infusion in Deutschland nicht geprüfter Substanzen

* Studienteilnahme empfohlen

General

1. Zhu L, Li L, Li Y: Chinese Herbal Medicine as an Adjunctive Therapy for Breast Cancer: A Systematic Review and Meta-Analysis. Evid Based Complement Alternat Med. 2016;2016:9469276. doi: 10.1155/2016/9469276.
2. McPherson L, Cochrane S, Zhu X: Current Usage of Traditional Chinese Medicine in the Management of Breast Cancer: A Practitioner's Perspective. Integr Cancer Ther. 2016 Sep;15(3):335-42. doi: 10.1177/1534735415607656.

Antioxidant supplements

1. Greenlee H, Hershman DL, Jacobson JS: Use of antioxidant supplements during breast cancer treatment: a comprehensive review. Breast Cancer Res Treat. 2009 Jun;115(3):437-52.
2. S.-K. Myung, Y. Kim, W. Ju et al.: Effects of antioxidant supplements on cancer prevention: meta-analysis of randomized controlled trials. Annals of Oncology 21: 166–179, 2010.
3. Harvie M: Nutritional supplements and cancer: Potential benefits and proven harms. American Society of Clinical Oncology educational book / ASCO American Society of Clinical Oncology Meeting 2014:e478-486.
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5. The Protective Role of Phenolic Compounds Against Doxorubicin-induced Cardiotoxicity: A Comprehensive Review. Razavi-

- Azarkhiavi K, Iranshahy M, Sahebkar A, et al. Nutr Cancer. 2016 Aug-Sep;68(6):892-917. doi: 10.1080/01635581.2016.1187280. Epub 2016 Jun 24. Review
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 7. Zhang H1, Shen WS, Gao CH, et al.

Vitamin C

1. Ohno S, Ohno Y, Suzuki N et al.: High-dose Vitamin C (Ascorbic Acid) Therapy in the Treatment of Patients with Advanced Cancer. Anticancer Res. 2009 Mar; 29(3):809-15. Review.
2. Heaney M, Gardner J, Karasavvas N et al.: Vitamin C antagonizes the cytotoxic effects of antineoplastic drugs. Cancer Res. 2008 Oct 1;68(19):8031-8.
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4. Sci Transl Med. 2014 Feb 5;6(222):222ra18. doi: 10.1126/scitranslmed.3007154. High-dose parenteral ascorbate enhanced chemosensitivity of ovarian cancer and reduced toxicity of chemotherapy. Ma Y1, Chapman J, Levine M, et al.

Selen

1. Dennert G, Horneber M. Selenium for alleviating the side effects of chemotherapy, radiotherapy and surgery in cancer patients. Cochrane Database of Systematic Reviews 2010, Issue 11. Art. No.: CD005037. DOI: 10.1002/14651858.CD005037.pub2.
2. Greenlee H, Hershman DL, Jacobson JS: Use of antioxidant supplements during breast cancer treatment: a comprehensive review. Breast Cancer Res Treat. 2009 Jun;115(3):437-52.

Coenzym Q10

1. Lesser GJ, Case D, Stark N, et al. A randomized, double-blind, placebo-controlled study of oral coenzyme Q10 to relieve self-reported treatment-related fatigue in newly diagnosed patients with breast cancer. J Support Oncol 2013;11(1):31-42
2. Lockwood K et al.: Partial and complete regression of breast cancer in patients in relation to dosage of coenzyme Q10. Biochem Biophys Res Comm 1994;199:1504-8.

3. Lockwood K et al.: Progress on therapy of breast cancer with vitamin Q10 and the regression of metastasis. *Biochem Biophys Res Comm* 1995;212:172-7.
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5. *Ann Oncol.* 2017 Mar 1;28(3):628-633. doi: 10.1093/annonc/mdw671. Interventions for preventing cardiomyopathy due to anthracyclines: a Bayesian network meta-analysis. Abdel-Qadir H1,2,3,4, Ong G4, Fazelzad R5, Amir E1,5,6, Lee DS1,2,6,7, Thavendiranathan P6,7, Tomlinson G1,6.

Proteolytic enzymes and toxicity of chemotherapy

1. Petru U, Stranz B, Petru C: Effects of proteolytic enzyme therapy with Wobe Mugos against chemotherapy-induced toxicity in breast cancer patients - results of a pilot study *Wien Med Wochenschr.* 2010 Nov;160(19-20):513-6.

Bromelain

1. Hidaka M, Nagata M, Kawano Y, et al.: Inhibitory effects of fruit juices on cytochrome P450 2C9 activity in vitro. *Biosci Biotechnol Biochem.* Feb 2008;72(2):406-411.

Chinese herbal medicine and wound healing

1. Chen J, Lv Q, Yu M et al.: Randomized clinical trial of Chinese herbal medications to reduce wound complications after mastectomy for breast carcinoma. *Br J Surg.* 2010 Dec;97(12):1798-804

Kurzzeit-Fasten

1. Bauersfeld SP, Kessler CS, Wischnewsky M et al. The effects of short-term fasting on quality of life and tolerance to chemotherapy in patients with breast and ovarian cancer: a randomized cross-over pilot study. *B MC Cancer* (2018) 18:476
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Komplementäre Therapien unter onkologischer Therapie Behandlung von Nebenwirkungen

Oxford		
LoE	GR	AGO
Chinesische Kräutermedizin (zur Behandlung chemotherapiebedingter Nebenwirkungen)		
1b	B	-
Homöopathische Medizin (gegen therapiebedingte Nebenwirkungen)		
1b	B	+/-
→ Topische Kalendula (≥ 20% Kalendulaanteil) zur Prophylaxe einer akuten Dermatitis unter Strahlentherapie		
→ Traumeel S® Mundspülung bei chemotherapieinduzierter Stomatitis		
Topische Anwendung Silymarin (Silybin, Mariendisteleextrakt) (akute Hautreaktion unter Strahlentherapie)		
3a	B	+/-
Massage (zur Verbesserung von Fatigue, Schmerzen, Angst, Übelkeit)		
1b	C	+/-
Transkutane elektrische Nervenstimulation (TENS) (bei Karzinomschmerzen)		
2b	D	+/-
Hydrotherapie (bei therapie-assoziiierter Hauttrockenheit, Hautverhärtung, Nagelveränderung)		
3b	C	+/-

Chinese medicinal herbs

1. Zhu L, Li L, Li Y: Chinese Herbal Medicine as an Adjunctive Therapy for Breast Cancer: A Systematic Review and Meta-Analysis. Evid Based Complement Alternat Med. 2016;2016:9469276. doi: 10.1155/2016/9469276.
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Homeopathic medicines for adverse effects of cancer treatments

1. Kassab S, Cummings M, Berkovitz S, et al. Homeopathic medicines for adverse effects of cancer treatments. Cochrane Database of Systematic Reviews 2012, Issue 8. Art. No.: CD004845. DOI: 10.1002/14651858.CD004845.pub2.

Topical use of Silymarin

1. M. Becker-Schiebe et al.: Topical Use of a Silymarin-Based Preparation to Prevent Radiodermatitis. Strahlenther Onkol 2011;187:485–91.
2. Lazzeroni M, Guerrieri-Gonzaga A, Gandini S: A Presurgical Study of Oral Silybin-Phosphatidylcholine in Patients with Early Breast Cancer. Cancer Prev Res (Phila). 2016 Jan;9(1):89-95. doi: 10.1158/1940-6207.

Massage

1. Shin ES, Seo KH, Lee SH, et al. Massage with or without aromatherapy for symptom relief in people with cancer. Cochrane Database of Systematic Reviews 2016, Issue 6. Art. No.: CD009873. DOI: 10.1002/14651858.CD009873.pub3.
2. Robison JG, Smith CL. Therapeutic Massage During Chemotherapy and/or Biotherapy Infusions: Patient Perceptions of Pain, Fatigue, Nausea, Anxiety, and Satisfaction. Clin J Oncol Nurs. 2016 Apr;20(2):E34-40. doi: 10.1188/16.CJON.E34-E40.
3. Donoyama N, Satoh T, Hamano T et al., Effects of Anma therapy (Japanese massage) on health-related quality of life in gynecologic cancer survivors: a randomized controlled trial. PLoS one 2018;13:e0196638.

Transcutaneous electric nerve stimulation (TENS) for cancer pain in adults: (von Slide 16 übertragen)

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Akupunktur zur Verbesserung von:				
▪ Chemotherapie-induzierter Übelkeit und Erbrechen	▪ Elektro-Akupunktur als Ergänzung zu antiemetischer Therapie)	1b	B	+
	▪ Akkupressur als Ergänzung zu Antiemetika	1b	B	+
▪ Schmerzen	▪ Krebschmerzen	1b	B	+
	▪ AI-induzierter Arthralgie	1a	B	+
	▪ TENS - transkutane elektrische Nervenstimulation bei Krebschmerzen	2b	D	+/-
▪ Fatigue	▪ Akkupressur	1a	B	+
		1b	B	+
▪ Angst und Depression		2b	B	+
▪ Kognitiver Dysfunktion		5	D	+/-
▪ Menopausensyndrom bei Patientinnen mit Mammakarzinom	▪ zur Verbesserung v. Häufigkeit und Schwere d. Hitzewallungen	1b	B	+
	▪ Elektroakupunktur zur Verbesserung des Schlafs bei Hitzewallungen	1b	B	+/-
		2a	B	+
▪ Leukopenie (Moxibustion)		2b	B	+/-
▪ Chemotherapie-induzierter Polyneuropathie	▪ als Prophylaxe	1b	B	-
	▪ als Therapie	2b	B	+/-
▪ Chronischem Lymphödem nach MaCa Therapie		2b	B	+/-

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 <p>© AGO e. V. in der DGGG e.V. sowie in der DKG e.V.</p> <p>Guidelines Breast Version 2019.1D</p> <p>www.ago-online.de FORSCHEN LEHREN HEILEN</p>	<h2 style="text-align: center;">Komplementäre Therapien</h2> <h3 style="text-align: center;">Behandlungsphase – Mind-Body Medizin I</h3>		
MBSR (Mindfulness-Based Stress Reduction – dt. Achtsamkeitsbasierte Stressbewältigung) Programm verbessert Lebensqualität, Bewältigungsstrategien, Achtsamkeit, vermindert Stress, Angst, Depression, Fatigue und Schlafstörung	1a	A	+
Körperliches Training/Sport (mind. 150 Min. moderate oder 75 Min. anstrengende körperliche Aktivität pro Woche in Kombination mit kräftigendem Gerätetraining 2 x /Wo.) verbessert Lebensqualität, kardiorespiratorische Fitness, körperliche Leistungsfähigkeit, Schlaf, Schmerz, Depression, Polyneuropathie, Lymphödem und Fatigue	1a	A	++

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Entspannungsverfahren			
Reduktion von Angst und Übelkeit, Verbesserung der Lebensqualität, Verminderung psychischer Belastung	2b	C	+/-
Yoga			
Verbesserung von Lebensqualität, Stress, Fatigue, Schlaf, Angst und Depression	1b	A	+
Qigong Verbesserung von Lebensqualität, Fatigue, Stimmung	2a	B	+/-
Tai-Chi			
Verbesserung von Lebensqualität, Muskelkraft, Schlaf	2a	B	+/-
Hypnose (in Kombination mit kognitiver Therapie)			
Verbesserung von Fatigue unter Radiotherapie, Reduktion von Distress	1b	A	+

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Komplementäre Therapien

Rezidivprävention / Verbesserung Gesamtüberleben I

Beeinflussbare Lebensstilfaktoren – Sport – Genussmittel

	Oxford LoE	GR	AGO
<ul style="list-style-type: none"> ■ Körperliches Training/Sport (das Äquivalent zu 3–5 Std. mäßiggradigem „Walking“ verbessert DFS und OS und kardiopulmonale Funktion) 	2a	A	++
<ul style="list-style-type: none"> ■ Nikotinreduktion 	2b	A	+
<ul style="list-style-type: none"> ■ Alkoholkonsum reduzieren (< 6g/die) 	2b	A	+

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Komplementäre Therapien

Rezidivprävention / Verbesserung Gesamtüberleben II

Beeinflussbare Lebensstilfaktoren – Ernährung

		Oxford	
		LoE	GR AGO
■ Anstreben eines normalen BMI		1a	A ++
■ Ernährung mit geringem Fettanteil (Ernährungsberatung empfohlen)		1a	B +
■ Ballaststoffhaltige Lebensmittel (u.a. Saaten, z.B. Leinsamen)		2a	B +
■ Beachten genereller Ernährungsempfehlungen (z.B. von DGE, WCRF) im Sinne einer mediterranen (Vollwert-)Ernährung		2a	B ++
■ Diät-Extreme		2a	B --

Adherence to normal body weight/BMI

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Komplementäre Therapien

Rezidivprävention / Verbesserung Gesamtüberleben III

Pflanzliche Therapieansätze – Nahrungsergänzung

		Oxford		
		LoE	GR	AGO
<ul style="list-style-type: none"> Nach Systemtherapie – Vitamine/Antioxidanzien scheinen nicht mit einem erhöhtem Rezidivrisiko assoziiert Raucher haben ein höheres Bronchial-Ca-Risiko unter Antioxidanzien 		2b	B	
		1b	A	
Prävention eines brustkrebsassoz. Rezidivs				
<ul style="list-style-type: none"> Antioxidanzien Orthomolekulare Substanzen (Selen, Zink ...) Vitamine (zusätzlich zu ausgewogener Ernährung; Vit. C, E, D) Karotenoide erscheinen mit schlechterem Ergebnis assoziiert Proteolytische Enzyme (Papain, Trypsin, Chymotrypsin) Sojaprodukte (Phytoöstrogene) <ul style="list-style-type: none"> Konzentration ≥ 100 mg Isoflavone pro Tag Traubensilberkerze (Cimicifuga racemosa) Mistellektine (Viscum album) Thymuspeptide (Einfluss auf Überleben) Sauerstoff- und Ozon-Therapie Antioxidative Supplemente nach Beendigung der Radiotherapie Laetrile (Aprikosenkernextrakt) Grüner Tee Methadon Cancer bush (Sutherlandia frutescens), Devil's claw (Harpagophytum procumbens), Rooibos Tee (Aspalathus linearis), Bambara-Erdnuss (Vigna subterranean) 		2a	B	+/-
		5	D	-
		2a	B	+/-
		2b	B	-
		3b	B	-
		2a	B	+/-
		2a	B	-
		3b	C	+/-
		1b	C	-
		2a	B	-
		5	D	--
		2b	B	+/-
		1c	D	--
		3a	C	+/-
		5	D	--
		5	D	-

General

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