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Diagnostik und Therapie früher und fortgeschrittener Mammakarzinome

Komplementäre Therapie „Survivorship“



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Komplementäre Therapien

Hormontherapie „Survivorship“ (Rezidiv-Prävention)

- **Versionen 2002–2021:**
 Albert / Bauerfeind / Blohmer / Dall / Fersis / Friedrich / Gerber /
 Göhring / Hanf / Janni / Kümmel / Lück / von Minckwitz / Nitz /
 Oberhoff / Rhiem / Scharl / Schmidt / Schütz / Solomeyer /
 Thomssen

- **Version 2022:**
 Albert / Thomssen

Screened Data Sources:

Pubmed 2015 - 01/2022

ASCO 2015 – 2021

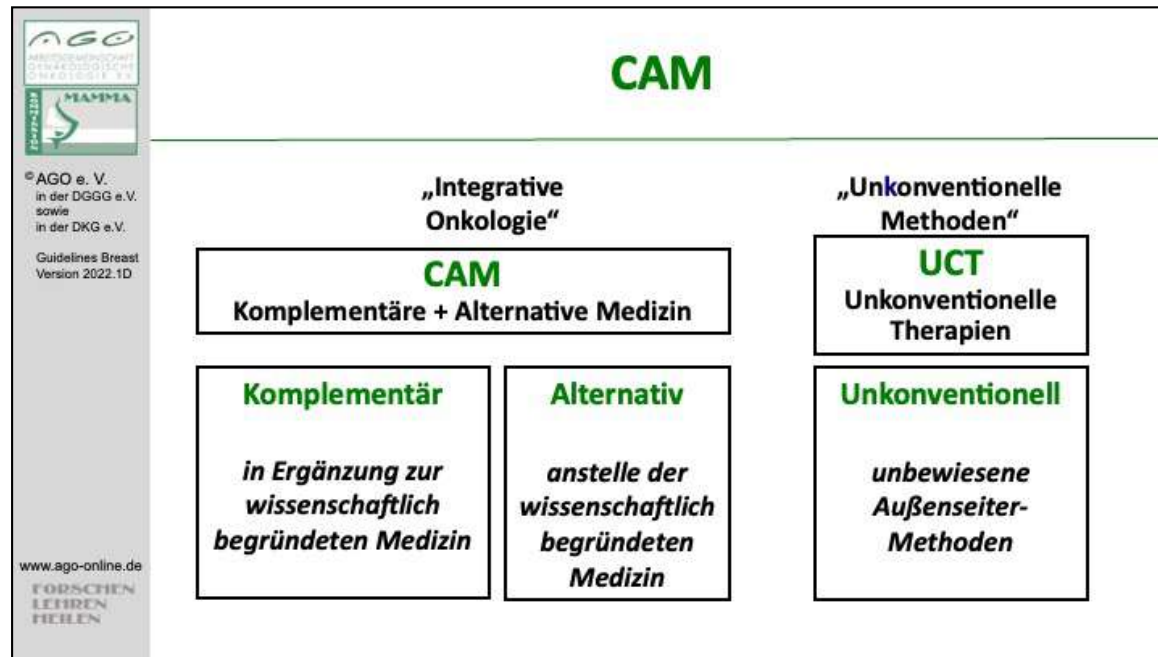
SABCS 2015 – 2021

EBCC 2015 – 2021

Cochrane library: summary Jan. 2022

-RCT, systematic review, meta-analysis

1. Leitlinienprogramm Onkologie (Deutsche Krebsgesellschaft, Deutsche Krebshilfe, AWMF): Komplementärmedizin in der Behandlung von onkologischen PatientInnen, Langversion 1.1, 2021, AWMF Registernummer: 032/055OL, <https://www.leitlinienprogramm-onkologie.de/leitlinien/komplementaermedizin/>





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

Onkolleitlinienprogramm

1. Witt CM et al.. A Comprehensive Definition for Integrative Oncology. J Natl Cancer Inst Monogr 2017;(52): lgx012
2. Leitlinienprogramm Onkologie (Deutsche Krebsgesellschaft, Deutsche Krebshilfe, AWMF): Komplementärmedizin in der Behandlung von onkologischen PatientInnen, Langversion 1.1, 2021, AWMF Registernummer: 032/055OL, <https://www.leitlinienprogramm-onkologie.de/leitlinien/komplementaermedizin/>

“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.”


AGG
ARBEITSGEMEINSCHAFT
ONKOLOGISCHER
GYNÄKOLOGEN
S3

MAMMA
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Gute klinische Praxis

Alle Patienten sollen frühestmöglich und im Verlauf wiederholt zum Interesse an Informationen komplementärmedizinischer Maßnahmen befragt werden und bei Interesse soll auf verlässliche Informationsquellen verwiesen werden.

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S3 LL "Komplementärmedizin in der Behandlung von onkologischen PatientInnen"

Literatur:

1. Leitlinienprogramm Onkologie (Deutsche Krebsgesellschaft, Deutsche Krebshilfe, AWMF): Komplementärmedizin in der Behandlung von onkologischen PatientInnen, Langversion 1.1, 2021, AWMF Registernummer: 032/055OL, <https://www.leitlinienprogramm-onkologie.de/leitlinien/komplementaermedizin/>



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Allgemein

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

- **CAM anstelle lokoregionärer Interventionen**
- **CAM anstelle systemischer Therapie**
- **Patienten sollten nach Nutzung komplementärer und alternativer 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 Medikamenten-Interaktionen**

1. 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.
2. 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.
3. 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
4. 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
5. 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.
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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.

9. Johnson SB, Park HS, Gross CP et al. Use of Alternative Medicine for Cancer and Its Impact on Survival. J Natl Cancer Inst. 2018 Jan 1;110(1). doi: 10.1093/jnci/djx145.
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11. Guerra-Martin MD, Tejedor-Bueno MS, correa-Casado M. Effectiveness of Complementary Therapy in Cancer Patients: A systematic Review. Int J Environ Res Public Health 2021 Jan 24;18(3) 1017.doi:103390/ijerph18031017

| 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 | + |
| ▪ zur Prophylaxe eines Lymphödems | 1b | B | +/- |
| ▪ Prophylaktische Lymphdrainage | 1b | B | - |
| ▪ Yoga (bei Arm- und Schulterschmerzen) | 2b | C | + |
| ▪ Musiktherapie (Schmerzreduktion nach Mastektomie) | 2b | C | +/- |

Präoperativ:

Hypnosis

1. Montgomery GH, David D, Kangas M, et al. Randomized Controlled Trial of a Cognitive-Behavioral Therapy Plus Hypnosis Intervention to Control Fatigue in Patients Undergoing Radiotherapy for Breast Cancer. JCO 2014;DOI 10.1200/JCO.2013.49.3437
2. 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.
3. Amraoui J, Pouliquen C, Fraisse J et al. Effects of a Hypnosis Session Before General Anesthesia on Postoperative Outcomes in Patients Who Underwent Minor Breast Cancer Surgery: The HYPNOSEIN Randomized Clinical Trial. JAMA 2018 Netw Open.;1(4):e181164. doi: 10.1001/jamanetworkopen.2018.1164.

Postoperative:

Acupuncture

1. 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.
2. 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.

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
6. Ruan QZ, Chen AD, Tran BNN integrative Medicine in Plastic Surgery: A Systematic Review of Our Literature. *Ann Plast Surg* 2019 April;82(49):459-468

Massage Therapy

1. 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.
2. 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.
3. Dilaveri CA, Croghan I, Mallory MJ, et al, Massage compared with massage plus acupuncture for breast cancer patients undergoing reconstructive surgery. *J Altern Complement Med* 2020 26(7):602-609

Postoperative exercise

1. McNeely ML, Campbell K, Ospina M et al.: Exercise interventions for upper-limb dysfunction due to breast cancer treatment. *Cochrane Database of Systematic Reviews* 2010, Issue 6. Art. No.: CD005211. DOI: 10.1002/14651858.CD005211.pub2.
2. Cavanaugh KM.: Effects of Early Exercise on the Development of Lymphedema in Patients With Breast Cancer Treated With Axillary Lymph Node Dissection. *J Oncol Pract*. 2011 March; 7(2): 89–93.
3. 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
4. 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.
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.

6. Bruce J, Mazuquin B, Canaway A et al. Exercise versus usual care after non-reconstructive breast surgery (UK PROSPER) multicenter randomised controlled trial and economic evaluation. *BMJ* 2021;375:e066542
7. Heimann J, Onerup A, Wessman C, et al. Recovery after breast cancer surgery following recommended pre and postoperative physical activity: (PhysSURG-B) randomized clinical trial. *Br J Surg* 2021 Jan 27;108(1):32-39
8. Klein i, Kalichman L, Chen N et al. Effect of physical activity levels on oncological breast surgery recovery: a prospective cohort study. *Scientific reports* 2021;11:10432 doi:10.1038/s41598-021-89908-8

Reduction secondary lymphedema

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

Prevention lymphedema

1. Baumann FT, Reike A, Hallek M, et al. (2018) Does Exercise have a preventive effect on secondary lymphedema in breast cancer patients following local treatment – a systemic review. *Breast Care* 13(5): 380–385. DOI. 10.1159/000487428
2. Ammitzbøll G, Johansen C, Lanng C, Andersen EW et al.. Progressive resistance training to prevent arm lymphedema in the first year after breast cancer surgery: Results of a randomized controlled trial. *Cancer*. 2019 May 15;125(10):1683-1692. doi: 10.1002/cncr.31962. Epub 2019 Jan 11.
3. Paskett ED, Le-Rademacher J, Olivieri JM et al. A randomized study to prevent lymphedema in women treated for breast cancer: CALGB 70305 (Alliance). *Cancer* 2021 Jan 15;127(2):291-299

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
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breast surgery:A systematic review. Nurs Womens Health 2021 oct;25(5):377-383.Doi 10.1016/j.nwh.2021.07.005

5. Paskett ED, Le-Rademacher J, Oliveri JM. A randomized study to prevent lymphedema in women treated for breast cancer:CALGB 70305 (Alliance).Cancer 2021 Jan15;127(2):291-299

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.
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3. Bradt, J., et al., Music interventions for improving psychological and physical outcomes in cancer patients. Cochrane Database Syst Rev, 2016;(8): p. Cd006911.

| <div>  <h2>Komplementäre Therapien</h2> <h3>Behandlungsphase – Einfluss auf Toxizität I</h3> </div> | | | |
|---|--|----------|----------|
| Bei laufender onkologischer Standardtherapie: CAVE: Interaktionen beachten! | | Oxford | |
| | | LoE | GR AGO |
| ▪ Mistellektine (<i>Viscum album</i>) zur Reduktion therapieassoziiierter Nebenwirkungen | | 1a | B +/- |
| ▪ Thymuspeptide verringern Risiko schwerer Infektionen | | 2a | B +/- |
| ▪ Ginseng verringert Fatigue; (Cave: interagiert mit P Enzyme, z. B. CYP3A4) | | 2b | C - |
| ▪ Ganoderma lucidum verringert Fatigue; (Cave: inhibiert P Enzyme, z. B. CYP3A4) | | 2b | C - |
| ▪ L-Carnitin zur Behandlung der peripheren Neuropathie zur Behandlung der Fatigue | | 1b 1b | B B - |
| ▪ Melatonin (verringert Fatigue, verbessert Schlaf, depressive Symptome, Gedächtnis) | | 2b | B +/- |
| ▪ Curcumin vermindert Radiodermatitis | | 1b | B +/- |
| ▪ Ingwer komplementär zu Leitlinien-gerechter Medikation gegen Chemother.-induzierte Übelkeit / Erbrechen; Cave: Wechselwirkungen | | 1b | C +/- |

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General

1. Neuhouser 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.
2. 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.
3. 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.
4. 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.

Mistletoe

1. 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.
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3. 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.
4. Ostermann T, Appelbaum S, Poier D, et al.: A Systematic Review and Meta-Analysis on the Survival of Cancer Patients Treated with a Fermented *Viscum album* L. Extract (Iscador) – an Update of Findings. Compl Med Res. 2019. In press.
5. Freuding M, Keinki C, Micke O, et al.: Mistletoe in oncological treatment: a systematic review : Part 1: survival and safety. J Cancer Res Clin Oncol. 2019 Mar;145(3):695-707
6. Freuding M, Keinki C, Kutschan S, et al.: Mistletoe in oncological treatment: a systematic review : Part 2: quality of life and toxicity of cancer treatment. J Cancer Res Clin Oncol. 2019;145(4):927-939.
7. Loeff M, Walach H. Quality of life in cancer patients treated with mistletoe: a systematic review and meta-analysis. Compl Med Res. 2019. In press.
8. Weissenstein U, Kunz M, Oufir M, et al.: Absence of herb-drug interactions of mistletoe with the tamoxifen metabolite (E/Z)-endoxifen and cytochrome P450 3A4/5 and 2D6 in vitro. BMC Complement Altern Med. 2019;19:23.

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. Jin X, Ruiz Beguerie J, Sze Daniel M-y et al: Ganoderma lucidum (reishi mushroom) for cancer treatment. Cochrane Database of Systematic Reviews 2012
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3. 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.

L-Carnitine

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2. Hershman DL, Unger JM, Crew K et al.: Two-Year trends of Taxane-induced neuropathy in women enrolled in a randomized trial of Acetyl-L-carnitine (SWOG S0715). *J Natl Cancer Inst* 2018 Jun 1;110(6) 669-676.

Melatonin

1. Li W, Chi-Hei Kwok C, Chun-Wan Chan D et al. Disruption of sleep, sleep-wake activity rhythm, and nocturnal melatonin production in breast cancer patients undergoing adjuvant chemotherapy: prospective cohort study. *Sleep Med* 2019;55:14-21 DOI 10.1016/j.sleep.2018.11.022
2. Zaki NFW, Sabri YM, Farouk O et al. Depressive symptoms, sleep profile and serum melatonin levels in a sample of breast cancer patients. *Nature and Science of Sleep* 2020;12:135-149
3. Palmer ACS, Zortea M, Souza A et al. Clinical impact on breast cancer patients undergoing chemotherapy; effects on cognition, sleep and depressive symptoms. A randomized, double-blind, placebo-controlled trial. *Plos One* 2020 pril 17;15(4):e0231379 doi:101371
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Curcumin

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2. Kumar P, Kadakol A, Shasthrula P, et al: Curcumin as an adjuvant to breast cancer treatment. *Anti-cancer agents in medicinal chemistry* 2015

Ingwer

1. 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.
2. Thamlikitkul L, Srimuninnim. 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 it V, Akewanlop C, et alCancer*. 2017 Feb;25(2):459-464. doi: 10.1007/s00520-016-3423-8. Epub 2016 Oct 6.
3. Totmaj S, Emamat H, Jarrahi F et al. The effect of ginger (*Zingiber officinale*) on chemotherapy-induced nausea and vomiting in breast cancer patients: A systemativ literature review of randomized controlled trials. *Phytother Res* 2019 Aug;33(8):1957-65

| Komplementäre Therapien Behandlungsphase – Einfluss auf Toxizität II | | | |
|--|--------|----|-------|
| | Oxford | | |
| | LoE | GR | AGO |
| ■ Antioxidanzien (Suppl.) | 1b | B | - |
| • verschied. antioxidative Extrakte (zur Minderung anthracyclinbedingter Cardiotoxizität) | 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) | 2b | B | +/-* |

* inf: Infusion in Deutschland nicht geprüfter Substanzen
Studienteilnahme empfohlen

General

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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. van Dalen EC, Caron HN, Dickinson HO, et al: Cardioprotective interventions for cancer patients receiving anthracyclines. Cochrane Database Syst Rev 2011:Cd003917.
2. 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.
3. 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
4. Jung AY, Cai X, Thoene K, Obi N et al. Antioxidant supplementation and breast cancer prognosis in postmenopausal women undergoing chemotherapy and radiation therapy. Am J Clin Nutr. 2019 Jan 1;109(1):69-78. doi: 10.1093/ajcn/nqy223.

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Vitamin C

1. 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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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.

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
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Proteolytic enzymes and toxicity of chemotherapy

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| Komplementäre Therapien unter onkologischer Therapie Behandlung von Nebenwirkungen | | | |
|---|--------|----|-----|
| | Oxford | | |
| | LoE | GR | AGO |
| ▪ Chinesische Kräutermedizin (zur Behandlung chemo-therapiebedingter Nebenwirkungen) | 1b | B | - |
| ▪ Homöopathische Medizin (gegen therapiebedingte Nebenwirkungen / (Placeboeffekt) | 1b | B | +/- |
| ▪ Topische Anwendung Silymarin (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 (zur supportiven Hautpflege) | 3b | C | +/- |

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FORSCHEN
LEHREN
HEILEN

Komplementäre Therapien unter onkologischer Therapie Behandlung von Nebenwirkungen

Akupunktur zur Verbesserung von

▪ Chemotherapie-induzierter Übelkeit und Erbrechen

- Elektro-Akupunktur als Ergänzung zu antiemetischer Therapie
- Akupressur als Ergänzung zu Antiemetika

▪ Schmerzen

- Krebsschmerzen
- AI-induzierter Arthralgie
- TENS - transkutane elektrische Nervenstimulation bei Krebsschmerzen

▪ Fatigue

- Akupressur

▪ Angst und Depression

▪ Kognitiver Dysfunktion

▪ Menopausensyndrom bei Patientinnen mit Mammakarzinom

- zur Verbesserung v. Häufigkeit und Schwere d. Hitzewallungen
- Elektroakupunktur zur Verbesserung des Schlafs bei Hitzewallungen

▪ Leukopenie (Moxibustion)

▪ Chemotherapie-induzierter Polyneuropathie

- als Prophylaxe
- als Therapie

▪ Chronischem Lymphödem nach MaCa Therapie

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| Komplementäre Therapien Behandlungsphase – Mind-Body Medizin I | | | |
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| <p>© AGO e.V. in der DGGB e.V. sowie in der DKG e.V.</p> <p>Guidelines Breast Version 2022.1D</p> <p>www.ago-online.de</p> <p>FORSCHEN LEHREN HEILEN</p> | 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. 3x/Woche moderates Ausdauertraining in Kombination mit kräftigendem Gerätetraining 2x/Wo.) verbessert Lebensqualität, kardiorespiratorische Fitness, körperliche Leistungsfähigkeit, Schlaf, Schmerz, Depression, Lymphödem und Fatigue | | |
| | 1a | A | ++ |

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Weight change

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Komplementäre Therapien

Behandlungsphase – Mind-Body Medizin II

| | Oxford | | |
|--|-----------|----------|------------|
| | LoE | GR | AGO |
| 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 | | | |
|--|--|--|--|
| <p>© AGO e.V. in der DGGB e.V. sowie in der DKG e.V.</p> <p>Guidelines Breast Version 2022.1D</p> <p>www.ago-online.de</p> <p>FORSCHEN LEHREN HEILEN</p> | Körperliches Training / Sport (das Äquivalent zu 3–5 Std. mäßiggradigem „Walking“ verbessert DFS und OS und kardiopulmonale Funktion) | Oxford LoE GR AGO <hr/> 2a A ++ | |
| | Nikotinreduktion | 2b A + | |
| | Alkoholkonsum reduzieren (< 6g/die) | 2b A + | |
| | | | |
| | | | |

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Smoking

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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 (Erährungsberatung 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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Obesity

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Adherence to general nutrition – guidelines:

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Dietary extremes:

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Komplementäre Therapien

Rezidivprävention / Verbesserung Gesamtüberleben III.1

Pflanzliche Therapieansätze – Nahrungsergänzung

Bei laufender onkologischer Standardtherapie:

Interaktionen beachten!

- Nach Systemtherapie – Vitamine / Antioxidanzien scheinen nicht mit einem erhöhtem Rezidivrisiko assoziiert
- Raucher haben ein höheres Bronchial-Ca-Risiko unter Antioxidanzien

| | Oxford | | |
|--|--------|----|-----|
| | LoE | GR | AGO |
| | 2b | B | |
| | 1b | A | |

Prävention eines Brustkrebs-Rezidivs

| | | | |
|--|----|---|-----|
| Antioxidanzien | 2a | B | +/- |
| Vitamine (zusätzlich zu ausgewogener Ernährung; Vitamine C, E) | 2a | B | +/- |
| Vitamin D | 2b | B | +/- |
| Sojaprodukte (Phytoöstrogene) | 2a | B | +/- |
| Phytoöstrogene Konzentration ≥ 100 mg Isoflavone pro Tag | 2a | B | - |
| Traubensilberkerze (Cimicifuga racemosa) | 3b | C | +/- |
| Antioxidative Supplemente nach Beendigung der Radiotherapie | 2b | B | +/- |
| Grüner Tee | 3a | C | +/- |
| Selen | 2b | B | +/- |

General

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Post treatment vitamin and/or antioxidant supplements

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Guidelines Breast
Version 2022.1D

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FORSCHEN
LEHREN
HEILEN

Komplementäre Therapien

Rezidivprävention / Verbesserung Gesamtüberleben III.2

Pflanzliche Therapieansätze – Nahrungsergänzung

Bei laufender onkologischer Standardtherapie:
Interaktionen beachten!

- **Weitere Orthomolekulare Substanzen** (Zink etc. ...)
- **Karotenoide** erscheinen mit schlechterem Ergebnis assoziiert
- **Proteolytische Enzyme** (Papain, Trypsin, Chymotrypsin)
- **Mistellektine** (*Viscum album*)
- **Thymuspeptide** (Einfluss auf Überleben)
- **Sauerstoff- und Ozon-Therapie**
- **Laetrile** (Aprikosenkernextrakt, Amygdalin, „Vitamin B17“)
- **Methadon**
- **Cancer bush** (*Sutherlandia frutescens*), **Devil's claw** (*Harpagophytum procumbens*), **Rooibos Tee** (*Aspalathus linearis*), **Bambara-Erdnuss** (*Vigna subterranean*)
- **Weihrauch**
- **Curcuma, Curcumin**

| Oxford | | |
|--------|----|-----|
| LoE | GR | AGO |
| 5 | D | - |
| 2b | B | - |
| 3b | B | - |
| 1b | C | - |
| 2a | B | - |
| 5 | D | -- |
| 1c | D | -- |
| 5 | D | -- |
| 4 | C | - |
| 5 | D | - |
| 5 | D | - |

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