Complementary Therapy
Survivorship
Complementary Therapy – Hormonal Treatment and Alternatives in Breast Cancer Survivors – Survivorship

- **Versions 2002–2023:**
  Albert / Bauerfeind / Blohmer / Dall / Fersis / Friedrich / Gerber / Göhring / Hanf / Heil / Janni / Kümmel / Lück / von Minckwitz / Nitz / Oberhoff / Rhiem / Scharl / Schmidt / Schütz / Solomayer / Thomassen

- **Version 2024:**
  Kümmel / Thomassen

**Screened Data Sources:**
Pubmed 2015 - 01/2024
ASCO 2015 – 2023
SABCS 2015 – 2023
EBCC 2015 – 2023
ESMO 2023
Cochrane library: summary Jan. 2024

-RCT, systematic review, meta-analysis

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

“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.”
All patients should be consulted as early as possible and in the course of the process repeatedly on the interest in information complementary medical measures and, if interested, reliable sources of information should be referred.

S3 LL "Komplementärmedizin in der Behandlung von onkologischen PatientInnen"

General Considerations


Complementary Therapy Pre- and Postoperative

Preoperative:
- Hypnosis (reduces anxiety, pain, nausea) 1b B +

Postoperative:
- Acupuncture (pain relief, anxiety) 1b B +
- Acupuncture (nausea, vomiting) 2b B +
- Massage therapy (pain relief) 2b C +/-
- Early postoperative exercise reduces upper-limb dysfunction (beware: increased wound drainage) 1a A +
- Physical exercise
  - to reduce breast cancer related secondary lymphedema 1a A +
  - as a prophylaxis of lymphedema 1b B +/-
- Prophylactic lymphatic drainage 1b B --
- Yoga (arm and shoulder pain) 2b C +
- Music therapy (reduces pain after mastectomy) 2b C +/-

General:

Pre-Peri-operative:
Hypnosis


**Peri-Postoperative:**

**Acupuncture**


**Massage**


Postoperative exercise

General

Upper extremities

Reduction secondary lymphedema

**Prophylactic lymph drainage**


Yoga

Music therapy
### Complementary Treatment

**While on Cancer Treatment – Impact on Toxicity I**

<table>
<thead>
<tr>
<th>During anti-cancer treatment: Beware of drug interactions</th>
<th>Oxford</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LoE</td>
</tr>
<tr>
<td></td>
<td>1a</td>
</tr>
<tr>
<td><strong>Mistletoe (Viscum album)</strong> in order to reduce side effects</td>
<td>1a</td>
</tr>
<tr>
<td><strong>Thymic peptides</strong> lower risk of severe infections</td>
<td>1a</td>
</tr>
<tr>
<td><strong>Ginseng</strong> reduces fatigue; note: interacts with cytochrome P enzymes e.g. CYP 3A4</td>
<td>2b</td>
</tr>
<tr>
<td><strong>Ganoderma Lucidum</strong> reduces fatigue, note: inhibits cytochrome P enzymes (e.g. CYP 3A4)</td>
<td>1a</td>
</tr>
</tbody>
</table>
| **L-Carnitine**  
  - peripheral neuropathy  
  - treatment of fatigue | 1b | B | -- |  |
| **Melatonin** (reduces fatigue, improve sleep, depressive symptoms, cognition) | 2a | B | +/- |  |
| **Curcumin** adjunct to reduce radiation-induced dermatitis | 1b | B | +/- |  |
| **Ginger** adjunct to guideline-oriented medication to treat chemotherapy induced nausea & vomiting – beware of drug interactions | 1b | C | +/- |  |

**General**


**Mistletoe**


**Thymus**


**Ginseng**


**Ganoderma Lucidum**


**L-Carnitine**


Melatonin


Curcumin


Ingwer
1. Chang WP, Peng YX. Does the Oral Administration of Ginger Reduce Chemotherapy-Induced Nausea and Vomiting?: A Meta-analysis

## Complementary Treatment
### While on Cancer Treatment – Impact on Toxicity II

<table>
<thead>
<tr>
<th>Supplement</th>
<th>LoE</th>
<th>GR</th>
<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Antioxidant supplements</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• various antioxidative extracts (to reduce anthracyclin-induced cardiotoxicity)</td>
<td>1b</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>• High dose vitamin C</td>
<td>1b</td>
<td>C</td>
<td>-</td>
</tr>
<tr>
<td><strong>Vitamine E</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Selenium</strong> (for alleviating therapy side effects)</td>
<td>1b</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td><strong>Co-Enzyme Q 10 (fatigue, QoL)</strong></td>
<td>1b</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td><strong>Proteolytic enzymes</strong> (for reduction of chemotherapy-induced toxicity)</td>
<td>2b</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td><strong>Chinese herbal medicine improves wound healing</strong></td>
<td>1b</td>
<td>B</td>
<td>--</td>
</tr>
<tr>
<td><strong>Oxygen and ozone therapy</strong></td>
<td>3</td>
<td>C</td>
<td>--</td>
</tr>
<tr>
<td><strong>Short-term fasting</strong> (under 3 week chemotherapy cycle - QoL, Fatigue)</td>
<td>2b</td>
<td>B</td>
<td>+/-**</td>
</tr>
</tbody>
</table>

* Application of substances or combinations not tested in Germany
** Treatment in clinical trials recommended

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### General


### Antioxidant supplements


**Vitamine C**

**Vitamine E**

**Selen**

**Coenzyme Q10**
Proteolytic enzymes

Bromelain

Chinese Herbal Medicine-Wound Healing

Ozone, Oxygen

Short-term-Fasting

### Additional Complementary Therapy of Side Effects Related to Cancer Treatments

<table>
<thead>
<tr>
<th>Therapy</th>
<th>LoE</th>
<th>GR</th>
<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis-based drugs (against pain, emesis/nausea)</td>
<td>1b</td>
<td>A</td>
<td>+/-</td>
</tr>
<tr>
<td>Chinese medicinal herbs (to treat the side effects of chemotherapy and endocrine therapy)</td>
<td>1b</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>Homoeopathic medicine (against therapy-related side effects / placebo effect)</td>
<td>1b</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>Topical Silymarin (to prevent acute dermatitis during radiotherapy)</td>
<td>2b</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>Massage (to improve on fatigue, pain, anxiety, nausea)</td>
<td>1b</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>Transcutaneous Electrical Nerve stimulation (TENS) (against cancer pain)</td>
<td>1a</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>Hydrotherapy (for supportive skin care)</td>
<td>2b</td>
<td>B</td>
<td>+/-</td>
</tr>
</tbody>
</table>

* Cave! Overviews or meta-analyses with purely Chinese-language original works cannot be verified by the Commission Mamma

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**Cannabis**


**Chinese medicinal herbs**


**Homeopathic medicines for adverse effects of cancer treatments**


Topical use of Silymarin

Massage

Transcutaneous electric nerve stimulation (TENS)


Hydrotherapy


Additional Complementary Therapy of Side Effects Related to Cancer Treatments

<table>
<thead>
<tr>
<th>Acupuncture** in order to improve</th>
<th>Oxford LoE</th>
<th>GR</th>
<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemotherapy-induced nausea and vomiting</td>
<td>1b B +</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Electro/Ear) Acupuncture as adjunct to antiemetic treatment</td>
<td>1b B +</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ear) Acupuncture as adjunct to antiemetic treatment</td>
<td>1b B +</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>1b B +</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer pain</td>
<td>1a B +</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aromatase-inhibitor – induced athralgia</td>
<td>1a B +</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatigue</td>
<td>1b B +</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acupuncture</td>
<td>1b B +</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive Dysfunction</td>
<td>2b C +/-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep Problems</td>
<td>2b C +/-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Menopause syndrome (under treatment)</td>
<td>1b B *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to improve on frequency and severity of hot flashes</td>
<td>1b B +/-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leucopenia (Moxibustion)</td>
<td>2b B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment of chemotherapy-induced polyneuropathy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>prophylactically</td>
<td>1b B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>therapeutically</td>
<td>2b B +/-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic lymph edema after breast cancer treatment</td>
<td>2b B +/-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* data only post treatment

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General

Acupuncture
Nausea, Emesis


Pain


Fatigue

Kognitive Dysfunction

Sleep

Menopausal Problems


Chemotherapy induced peripheral neuropathy


Chronic Lymphedema


Mind-Body Medicine (MBM)

**MBSR (Mindfulness-Based Stress Reduction)**
Program improves quality of life, coping strategies, attentiveness, and lowers stress, anxiety (incl. fear of recurrence), depression, fatigue, and sleep disturbances

**Physical exercise / sport**
min. 3x/week moderate endurance training in combination with workout exercises (2x per week) improve quality of life, cardio-respiratory fitness, physical performance, sleep, pain, depression, lymphedema, fatigue, cognition, weight-control

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Physical exercise


Quality of Life


Cardiorespiratoric Fitness/Physical Performance


Sleep


Pain/PNP


Depression

Cognition

Fatigue


Lymphedema

Weight
## General


### Relaxation techniques

<table>
<thead>
<tr>
<th>Technique</th>
<th>Reduction of anxiety, depressivity and nausea, improvement of quality of life, sleep, reduction of psychological stress</th>
<th>LoE</th>
<th>GR</th>
<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relaxation techniques</strong></td>
<td></td>
<td><strong>2b</strong></td>
<td><strong>C</strong></td>
<td>+/-</td>
</tr>
<tr>
<td><strong>Yoga</strong></td>
<td>Improves quality of life, sleep, anxiety, depression, lymphedema and especially fatigue</td>
<td><strong>1b</strong></td>
<td>A</td>
<td>+</td>
</tr>
<tr>
<td><strong>Qi Gong</strong></td>
<td>May improve quality of life, fatigue, and mood</td>
<td><strong>2a</strong></td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td><strong>Tai Chi</strong></td>
<td>Improves quality of life, muscular strength, sleep</td>
<td><strong>2a</strong></td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td><strong>Hypnosis</strong></td>
<td>Improves fatigue and muscle weakness under radiotherapy; also reduces distress</td>
<td><strong>1b</strong></td>
<td>A</td>
<td>+</td>
</tr>
</tbody>
</table>


6. Chang YC, Yeh TL, Chang YM, Hu WY. Short-term Effects of Randomized Mindfulness-Based Intervention in Female Breast Cancer


Yoga


Qigong


Tai-Chi


Hypnosis


Physical exercise

Improved in DFS and OS, prevention of recurrence
4. Tsilidis KK, Cariolou M, Becerra-Tomás N, et al. Postdiagnosis body fatness, recreational physical activity, dietary factors and breast...


**Smoking**


**Alcohol**


Adherence to normal body weight/BMI


Overweight


**Low Fat**

**Fiber**

**General Nutrition Guidelines**


Short-Term Fasting


Dietary Extremes


3. Mohsen M, Katsiki N et al. Lower carbohydrate diets and all-cause and cause-specific mortality: a population-based cohort study and
pooling of prospective studies. European Heart Journal 2019; 40: 2870-2879
## Complementary Treatment
### Prevention of Recurrence / Improvement of Overall Survival III.1
#### Dietary Supplements – Herbal Therapies

<table>
<thead>
<tr>
<th>During anti-cancer treatment: Beware of drug interactions</th>
<th>Oxford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post treatment vitamin / antioxidant supplements does not appear to be associated with increased risk of recurrence (beware of drug / treatment interactions)</td>
<td>2b B</td>
</tr>
<tr>
<td>Smokers on antioxidant supplements are at higher risk for lung cancer</td>
<td>1b A</td>
</tr>
</tbody>
</table>

**For Prevention of BC Recurrence:**

- **Antioxidants**
  - Vitamin supplementation in patients on a balanced diet (esp. Vitamin C, E)  
  - Vitamin D (after Vit D level)
  - Soy-food (natural source of phytoestrogenes)
  - Food or concentrates containing ≥ 100 mg isoflavones per day
- **Black Cohosh** (Cimicifuga racemosa)
- **Antioxidant supplements** (after completion of radiotherapy)
- **Green tea**
- **Selenium**

**Guidelines Breast**

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in der DGGG e.V.
sowie in der DKG e.V.

### General – post treatment


### Antioxidants

3. Ambrosone CB, Zirpoli GR, Hutson AD et al. Diatery supplement use during chemotherapy and survival outcomes of patients with

Vitamine C, E

Vitamine D

Soy

Black cohosh/Traubensilberkerze

Green Tea

Selenium
Complementary Treatment
Prevention of Recurrence / Improvement of Overall Survival III.2
Dietary Supplements – Herbal Therapies

<table>
<thead>
<tr>
<th>During anti-cancer treatment: Beware of drug interactions</th>
<th>Oxford</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Trace elements and minerals</td>
<td>2b</td>
</tr>
<tr>
<td>• Artificial carotenoids</td>
<td>2b</td>
</tr>
<tr>
<td>• Proteolytic enzymes (Papain, Trypsin, Chymotrypsin)</td>
<td>3b</td>
</tr>
<tr>
<td>• Mistletoe (Viscum album)</td>
<td>1b</td>
</tr>
<tr>
<td>• Thymic peptides (impact on OS)</td>
<td>2a</td>
</tr>
<tr>
<td>• Oxygen- and ozone therapy</td>
<td>5</td>
</tr>
<tr>
<td>• Laetrile (Amygdalin, „Vitamin B17”)</td>
<td>1c</td>
</tr>
<tr>
<td>• Methadone</td>
<td>5</td>
</tr>
<tr>
<td>• TCM-Herbs *</td>
<td>2b</td>
</tr>
<tr>
<td>• Cancer bush [Sutherlandia frutescens], Devil’s claw [Harpagophytum procumbens], Roobos tea [Aspalathus linearis], Bambara groundnut [Vignea subterranean]</td>
<td>4</td>
</tr>
<tr>
<td>• Incense</td>
<td>5</td>
</tr>
<tr>
<td>• Curcuma, curcumine</td>
<td>2b</td>
</tr>
</tbody>
</table>

* Cave! Reviews with original Chinese studies and herbal mixtures without knowledge of interactions

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Trace Elements, Minerals

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Carotenoides

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Mistletoe

**Thymus Peptides**

**Oxygen, Ozone**

**Laetrile**

**TCM Herbs**

**Cancer bush, Devil’s Claw, Rooibos Tea, Bambara Groundnut**

**Incense**

**Curcuma, Curcumin**
