

# Diagnosis and Treatment of Patients with early and advanced Breast Cancer



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## Complementary Therapy Survivorship

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



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- **Versions 2002–2023:**

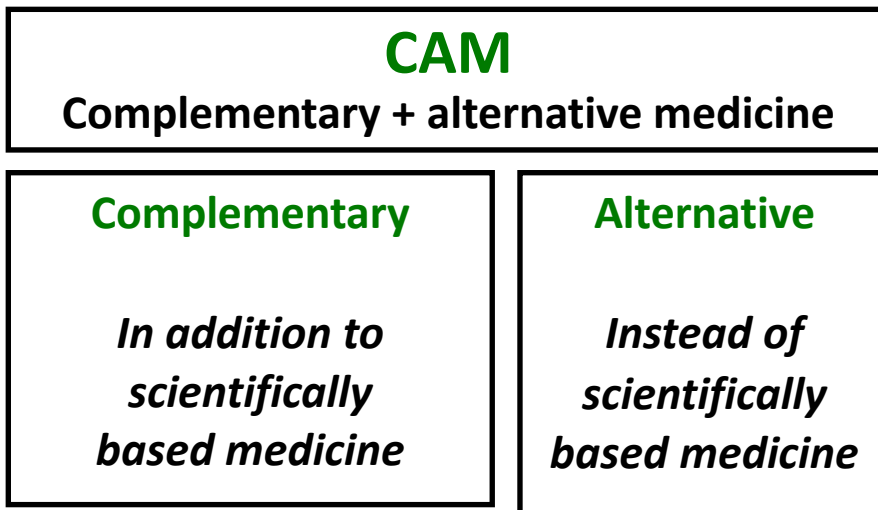
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- **Version 2024:**

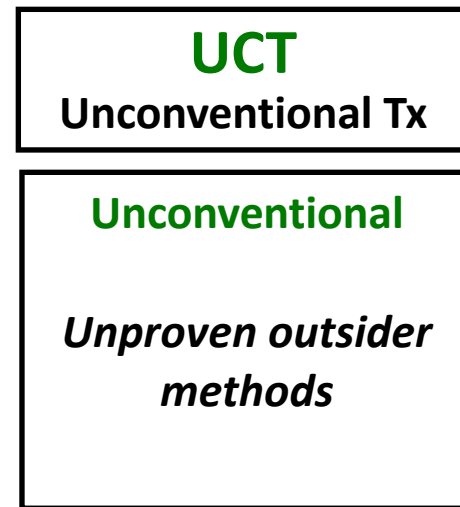
**Kümmel / Thomssen**

# CAM

## „Integrative Oncology“



## „Unconventional methods“





# Good Clinical Practice

**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.**

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S3 LL “Komplementärmedizin in der Behandlung von onkologischen PatientInnen“

# General Considerations

## Oxford

LoE	GR	AGO
-----	----	-----

- CAM instead of loco-regional interventions

2b	B	--
----	---	----

- CAM instead of systemic treatment

2b	B	--
----	---	----

- Diagnostic procedures in connection with complementary and alternative therapy concepts without evidence (e.g. iris diagnostics, bioresonance) should not be recommended.

- *During anti-cancer treatment:* Beware of drug interactions

# Complementary Therapy Pre- and Postoperative

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	Oxford		
	LoE	GR	AGO
<b><u>Preoperative:</u></b>			
▪ Hypnosis (reduces anxiety, pain, nausea)	1b	B	+
<b><u>Postoperative:</u></b>			
▪ 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	+/-

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

Oxford

## During anti-cancer treatment: Beware of drug interactions

- **Mistletoe (*Viscum album*)** in order to reduce side effects
- **Thymic peptides** lower risk of severe infections
- **Ginseng** reduces fatigue; note: interacts with cytochrome P enzymes e.g. CYP 3A4
- **Ganoderma Lucidum** reduces fatigue, note: inhibits cytochrome P enzymes (e.g. CYP 3A4)
- **L-Carnitine**
  - peripheral neuropathy
  - treatment of fatigue
- **Melatonin** (reduces fatigue, improve sleep, depressive symptoms, cognition)
- **Curcumin** adjunct to reduce radiation-induced dermatitis
- **Ginger** adjunct to guideline-oriented medication to treat chemotherapy induced nausea & vomiting – beware of drug interactions

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

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

Oxford

- **Antioxidant supplements**
  - **various antioxidative extracts** (to reduce anthracyclin-induced cardiotoxicity)
- **High dose vitamin C**
- **Vitamine E**
- **Selenium** (for alleviating therapy side effects)
- **Co-Enzyme Q 10** (fatigue, QoL)
- **Proteolytic enzymes** (for reduction of chemotherapy-induced toxicity)
- **Chinese herbal medicine improves wound healing \***
- **Oxygen and ozone therapy**
- **Short-term fasting** (under 3 week chemotherapy cycle - QoL, Fatigue)

	LoE	GR	AGO
	<b>1b</b>	<b>B</b>	-
	<b>1b</b>	<b>B</b>	-
	<b>1b</b>	<b>C</b>	-
	<b>2b</b>	<b>B</b>	-
	<b>1b</b>	<b>B</b>	-
	<b>1b</b>	<b>B</b>	-
	<b>2b</b>	<b>B</b>	-
	<b>1b</b>	<b>B</b>	--
	<b>3</b>	<b>C</b>	--
	<b>2b</b>	<b>B</b>	+/-**

\* Application of substances or combinations not tested in Germany

\*\* Treatment in clinical trials recommended

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# Additional Complementary Therapy of Side Effects Related to Cancer Treatments

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

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

# Additional Complementary Therapy of Side Effects Related to Cancer Treatments

## Acupuncture\*\* in order to improve

- **Chemotherapy-induced nausea and vomiting**
  - (Electro/Ear)-Acupuncture as adjunct to antiemetic treatment
  - (Ear-)Acupressure as adjunct to antiemetic treatment
- **Pain**
  - Cancer pain
  - Aromatase-inhibitor – induced arthralgia
- **Fatigue**
  - Acupressure
- **Cognitive Dysfunction**
- **Sleep Problems**
- **Menopause syndrome (under treatment)**
  - to improve on frequency and severity of hot flashes
- **Leucopenia (Moxibustion)**
- **Treatment of chemotherapy induced polyneuropathy**
  - prophylactically
  - therapeutically
- **Chronic lymph edema after breast cancer treatment**

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

\* data only post treatment

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

# Complementary Treatment

## Mind-Body Medicine I

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### 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

Oxford		
LoE	GR	AGO
1a	A	+

### 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

1a	A	++
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# Complementary Treatment

## Mind-Body Medicine II

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

## Prevention of Recurrence / Improvement of Overall Survival I

### Modifiable Lifestyle Factors

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- **Physical exercise**

(equivalent to 3–5 hrs moderate walking per week)  
improves DFS and OS, cardio-respiratory fitness,  
physical functioning

- **Reduce smoking**

- **Reduce alcohol consumption (< 6 g/day)**

### Oxford

LoE	GR	AGO
2a	A	++
2b	A	+
2b	A	+

# Modifiable Lifestyle Factors

## Nutrition after Breast Cancer Diagnosis

### Prevention of Recurrence / Improvement of Overall Survival II

#### Oxford

LoE	GR	AGO
-----	----	-----

- |                                                                                                                                              |    |   |     |
|----------------------------------------------------------------------------------------------------------------------------------------------|----|---|-----|
| <ul style="list-style-type: none"> <li>Adherence to normal BMI / weight loss if overweight, irrespective of HR-status</li> </ul>             | 1a | A | ++  |
| <ul style="list-style-type: none"> <li>Low fat diet<br/>dietary counseling recommended</li> </ul>                                            | 1a | B | +   |
| <ul style="list-style-type: none"> <li>Increased fiber intake (e.g. Flaxseed)</li> </ul>                                                     | 2a | B | +   |
| <ul style="list-style-type: none"> <li>Adherence to general nutrition guidelines (e.g. DGE, WCRF) similar to a Mediterranean Diet</li> </ul> | 2a | B | ++  |
| <ul style="list-style-type: none"> <li>Nightly Fasting</li> </ul>                                                                            | 2b | C | +/- |
| <ul style="list-style-type: none"> <li>Dietary extremes</li> </ul>                                                                           | 2a | B | --  |

# Complementary Treatment

## Prevention of Recurrence / Improvement of Overall Survival III.1

### Dietary Supplements – Herbal Therapies

**During anti-cancer treatment: Beware of drug interactions**

Oxford

LoE GR AGO

**Post treatment vitamine / antioxidant supplements does not appear to be associated with increased risk of recurrence** (beware of drug / treatment interactions)

2b

B

**Smokers on antioxidant supplements are at higher risk for lung cancer**

1b

A

#### For Prevention of BC Recurrence:

- |                                                                                       |    |   |     |
|---------------------------------------------------------------------------------------|----|---|-----|
| ▪ <b>Antioxidants</b>                                                                 | 2a | B | +/- |
| ▪ <b>Vitamine supplementation in patients on a balanced diet</b> (esp. Vitamine C, E) | 2a | B | +/- |
| ▪ <b>Vitamine D (after Vit D level)</b>                                               | 2b | B | +/- |
| ▪ <b>Soy-food</b> (natural source of phytoestrogenes)                                 | 2a | B | +/- |
| – <b>food or concentrates containing <math>\geq 100</math> mg isoflavones per day</b> | 2a | B | -   |
| ▪ <b>Black Cohosh</b> (Cimicifuga racemosa)                                           | 3b | C | +/- |
| ▪ <b>Antioxidant supplements</b> (after completion of radiotherapy)                   | 2b | B | +/- |
| ▪ <b>Green tea</b>                                                                    | 3a | C | +/- |
| ▪ <b>Selenium</b>                                                                     | 2b | B | +/- |

# Complementary Treatment

## Prevention of Recurrence / Improvement of Overall Survival III.2

### Dietary Supplements – Herbal Therapies

#### During anti-cancer treatment: Beware of drug interactions

	Oxford		
	LoE	GR	AGO
▪ <b>Trace elements and minerals</b>	2b	B	-
▪ <b>Artificial carotenoids</b>	2b	B	-
▪ <b>Proteolytic enzymes</b> (Papain, Trypsin, Chymotrypsin)	3b	B	-
▪ <b>Mistletoe</b> (Viscum album)	1b	C	-
▪ <b>Thymic peptides</b> (impact on OS)	2a	B	-
▪ <b>Oxygen- and ozone therapy</b>	5	D	--
▪ <b>Laetrile</b> (Amygdalin, „Vitamine B17“)	1c	D	--
▪ <b>Methadone</b>	5	D	--
▪ <b>TCM-Herbs *</b>	2b	C	--
▪ <b>Cancer bush</b> (Sutherlandia frutescens), <b>Devil's claw</b> (Harpagophytum procumbens), <b>Rooibos tea</b> (Aspalathus linearis), <b>Bambara groundnut</b> (Vigna subterranean)	4	C	-
▪ <b>Incense</b>	5	D	-
▪ <b>Curcuma, curcumine</b>	2b	C	-

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