



THE ROLE OF
COMPLEMENTARY MEDICINE
(CAM) AND
INTEGRATIVE ONCOLOGY
IN THE CONTEXT OF CANCER

POSITION PAPER
MARCH 2022

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

Table of content

Executive summary	2
Introduction.....	3
Integrative Oncology.....	4
Cancer Patients using Integrative Medicine.....	5
• Awareness and Education.....	6
A developing evidence-base.....	7
Integrative Medicine Cancer Interventions.....	8
• Lifestyle: Preventing Cancer and Recurrence During Remission.....	9
• Treatment: Optimising the Healthcare System.....	10
Recommendations.....	11
References.....	12
EUROCAM.....	13

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

Executive summary

Cancer is a major public health problem, accounting for a quarter of all deaths in the EU. Cancer is the number one cause of death for people aged 45-64 [1]. As such, health expenditure on cancer places a huge burden on health services. While policies, such as [Europe's Beating Cancer Plan](#) and the [EU4Health Programme](#), set ambitious targets to tackle the issue of cancer, Integrative Oncology should be made fully part of the implementation of the Cancer Plan and of any other EU initiative in this field.

Incorporating evidence-based practices from different medical traditions alongside conventional cancer treatments optimises quality of life, and clinical outcomes. The integration of these traditions into mainstream care provides a coherent treatment approach as well as an ethical response to frequent requests and unmet needs from patients. Integrative Oncology is *"a patient-centred, evidence-informed field of cancer care that utilises mind and body practices, natural products, and/or lifestyle modifications from different traditions alongside conventional cancer treatments"* [3].

The urgent need to see Integrative Oncology incorporated into healthcare on a wider scale is reflected in the number of complementary modalities chosen by cancer patients during and after their conventional care. According to a systematic review and meta-analysis this includes an estimated 37% of all cancer patients in Europe [7]. The evidence for the efficacy of complementary treatment modalities in improving Quality of Life and relieving disease burden and side effects of conventional treatments is constantly increasing. However, more research investment is needed.

Including Integrative Medicine in cancer treatment is relevant to address patients' needs and requires good communication and patient-doctor relationship. Therefore educational programmes and continuous professional development need to be in place to ensure that all the oncology healthcare team are fully informed about the basis for and the implications of these treatment options.

Cancer interventions in Integrative Medicine improve outcomes in two major areas: (a) healthy lifestyle, by preventing cancer and recurrence during remission with nutrition, mindful physical activity, and mental and emotional health; (b) via treatment and optimising the healthcare system through a diverse team of multidisciplinary healthcare workers and the application of specific complementary and integrative modalities.

Based on these, we suggest the inclusion of Integrative Oncology in policies addressing all stages of cancer care, from prevention to treatment, rehabilitation, follow-up, and palliative care, with special attention to paediatric cancer.

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

Introduction

Cancer is a disease with multi-factor aetiology and uncertain prognosis. Multi morbidity is also common. Cancer accounts for a quarter of all deaths and is the number one cause of death for people aged 45-64 in an increasing number of EU countries [1]. A 2016 study estimated that health expenditure on cancer increased continuously from €35.7 billion in 1995 to €83.2 billion in 2014 in the EU, and spending on cancer drugs increased from €7.6 billion in 2005 to €19.1 billion in 2014 [2]. Cancer, therefore, presents major challenges for any health system. In February 2021, the European Commission released Europe's Beating Cancer Plan, an ambitious initiative to tackle cancer at all stages in the EU and a key initiative of the European Health Union. Cancer is also a key issue in the EU4Health Programme.

Integrative Oncology, i.e. integrating evidence-based complementary therapies with mainstream cancer care, should be fully integrated in the implementation of the Beating Cancer Plan and any other EU initiative in this field. Integrative Oncology incorporates practices from different medical traditions alongside conventional cancer treatments, aiming to optimise health, Quality of Life (QoL), and clinical outcomes, in all stages of the disease. Prevention is also at the core of this approach. The integration of evidence-based complementary therapies into mainstream care provides on one hand a coherent treatment approach and an ethical response to frequent requests of patients on the other.

Definitions

A variety of terms are used in this context and it is helpful at the outset to define terms.

'Complementary Medicine' or **'Complementary and Alternative Medicine' (CAM)** is generally defined as a broad set of health care practices that are not part of that country's own tradition or conventional medicine and are not fully integrated into the dominant health-care system [a].

'Integrative Medicine' reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic and lifestyle approaches, healthcare professionals and disciplines to achieve optimal health and healing (Academic Consortium of Integrative Medicine and Health)

[a] <https://www.who.int/health-topics/traditional-complementary-and-integrative-medicine>

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

Integrative Oncology

The concept of Integrative Oncology has emerged in hospital and community settings in response to the increasing role that patients with cancer and survivors have in managing their own care. This approach to cancer care has the advantage of respecting patients' treatment preferences and values as well as recognising the importance of a therapeutic alliance between conventional cancer care and 'Complementary Medicine' (CAM). Integrative Oncology is defined as *"a patient-centred, evidence-informed field of cancer care that utilises mind and body practices, natural products, and/or lifestyle modifications from different traditions alongside conventional cancer treatments. [It] aims to optimise 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"*[3].

The Society for Integrative Oncology (SIO) [4] which is *"the premier multi-disciplinary professional organisation for Integrative Oncology, [with the] mission to advance evidence-based, comprehensive, integrative healthcare to improve the lives of people affected by cancer,"* has consistently encouraged rigorous scientific evaluation of both pre-clinical and clinical science, while advocating for the transformation of oncology care to integrate evidence-based complementary approaches. SIO's vision is to have research inform the true integration of complementary modalities into oncology care, so that evidence-based complementary care is accessible and part of standard cancer care in the European Union, for all patients across the cancer continuum.

The need for Integrative Oncology is steadily rising all around the world: a significant growth in the number of cancer centres offering Integrative Oncology has been recently observed in North America, Australia, and Western Europe [5]. A mapping study conducted in 2013 [6] found that nearly half of the cancer centres (47.5%) provided Integrative Oncology services. These services were predominantly provided by the public health sector (69.9%), followed by a smaller number of privately owned centres (19.6%). Complementary medicine treatments provided by specialised health professionals in private settings are also commonly used by patients to complement ongoing conventional treatment. The study found that the complementary medicine treatments most frequently provided are acupuncture (55.3%); homeopathy (40.4%), herbal medicine (38.3%) and Traditional Chinese Medicine (36.2%); anthroposophic medicine (21.3%); homotoxicology (12.8%); along other therapies (63.8%).

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

Cancer patients using Integrative Medicine

In Europe, almost 40% of cancer patients seek complementary modalities in addition to their conventional cancer treatment [7]. There is a higher demand in German-speaking (41%) and Mediterranean (39%) countries and an almost 10% lower prevalence in the United Kingdom (32%) and Scandinavia (31%). According to a systematic review of 7,219 children from 34 countries [8], the use of complementary treatment modalities (following cancer diagnosis) in paediatric cancer is widely common globally, with national figures ranging in studied European countries from 12.4% (Italy) to 91.2% (Hungary).

Certain sociodemographic predictors may explain preferences for Integrative Oncology: it particularly concerns patients of younger age, female gender and with higher educational level[9]. Personal traits can also predict the preference for the use of Integrative Oncology: patients with higher commitment to mindfulness and spirituality have increased interest in the psychological aspects of healing, and a greater preference for mind-body methods [10] [11].

The following study by Evans et al. (2007) [12] found that cancer patients use Integrative Oncology for these five major reasons:

1. **Desire for active participation in treatment:**

Patients want to make active choices to counter a sense of passivity sometimes experienced in accepting diagnosis and undergoing conventional medical treatment. Use of complementary medicine modalities in addition to conventional treatment provides an avenue for self-help and enables individuals to regain a sense of control in the face of uncertainty.

2. **Desire for good communication:**

In the Evans study, patients reported experiencing poor communication with oncologists, identifying lack of time to talk in-depth, difficulty in establishing desired patient-doctor relationship with clinicians and facing barriers to formulate and ask questions. Integrative Medicine health professionals provide patient-centred care, on the basis of trust, knowledge, regard, and loyalty, accommodating patients' needs for positive therapeutic relationships.

3. **To relieve side effects of cancer treatment or symptoms of cancer:**

Patients experience an improvement in their subjective state of health after using complementary therapies, and report increased energy, better sleep quality and a reduction in fatigue and depression. These treatments relieve side effects of conventional treatments, such as nausea, vomiting, skin reactions, anaemia, pain and the need for analgesic medicines. They also reduce the length and number of hospitalizations for serious side effects and increase the effectiveness of conventional treatment.

4. **Desire for a more holistic approach:**

Patients often perceive conventional treatment as limited to the physical aspects of the

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

disease and not geared to their individual needs for psychological, emotional and/or spiritual support. They value a more individualised 'whole-person' approach with an emphasis on self-healing, an approach that characterises many complementary therapies. Patients undergoing integrative cancer treatment report a reduction in stress, depression, anxiety and panic attacks, feel more relaxed, and experience greater mental clarity and a positive attitude to healing and to their future life.

5. **Prolongation of remission periods:**

While improving quality of life is the major rationale for the use of Integrative Oncology, there is a definite undercurrent of expectation, particularly among the younger patients, that some therapies might have an anti-cancer effect (prolongation of remission periods) and slow/stagnate tumour growth (prolongation of survival periods), and boost the immune system, making it easier to overcome the disease.

These five reasons make an emphatic case for the wider availability of Integrative Oncology in Europe.

Awareness and Education

While more than a third of cancer patients in Europe request Integrative Medicine to be part of their cancer treatment [7], there is a lack of recognition from conventional oncology healthcare professionals about integrative cancer therapies [13]. Possible factors that may explain lack of assessment by healthcare professionals are [b]:

1. Poor awareness of which complementary modalities are used by patients to relieve side effects of cancer treatment or symptoms of cancer;
2. Insufficient interprofessional educational programmes and training courses that include complementary modalities as a part of Integrative Medicine in mainstream oncology.

To overcome infrequent recognition and assessment the following factors must be considered and implemented:

1. Campaigns and clinical practice guidelines that stimulate accurate information and good communication with patients on follow up, with the inclusion of all healthcare professionals, particularly nurses.
2. Inclusion of study credits on complementary modalities as part of Integrative Medicine in interprofessional educational programmes and continuing education for physicians and oncologists.

Addressing patients' needs for options of Integrative Medicine modalities in their cancer treatment requires a two way approach: (1) awareness of this need by good communication and patient-doctor relationship; and (2) the establishment of interprofessional education programmes and training courses that support physicians and oncologist in selecting and integrating the best fitting complementary treatment options into their patients cancer treatment.

[b] Also see: Trimble, Edward & Rajaraman, Preetha. (2017). Integrating Traditional and Allopathic Medicine: An Opportunity to Improve Global Health in Cancer. *Journal of the National Cancer Institute - Monographs*. 2017. 9-10. 10.1093/jncimonographs/lgx011.

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

A developing evidence-base

The evidence base for the effectiveness of Integrative and Complementary Medicine, including preclinical studies, observations, economic analyses, patient perspectives, systematic reviews as well as laboratory and epidemiological research is increasing. Reviews that have been published on the evidence of acupuncture, homeopathy, herbal medicine, mistletoe therapy, anthroposophic medicine, or other complementary treatments, and aromatherapy/massage for cancer patients suggest that these therapies have benefits on measures of Quality of Life (QoL), psychological well-being, relieve adverse effects of conventional cancer treatments, and may impact on survival [14].

Numerous references on the effectiveness of complementary therapies in cancer care can be found at CAM Cancer, a web resource hosted by NAFKAM, Norway's National Research Centre in Complementary and Alternative Medicine [15].

The Society of Integrative Oncology (SIO) publishes online monthly updates of relevant literature [16]. Each month, the SIO Research Committee co-chairs select recent papers to be listed on the website, based on search criteria that focus on original clinical research in human populations spanning a full range of complementary medicine modalities. SIO has also published several Integrative Oncology Practice Guidelines. Specialised experts in integrative or complementary therapies categorised the interventions into specific levels of utility based on the methodological strength of supportive evidence, benefits versus risks, practicality, and value.

Evidence-Based Clinical Practice Guidelines for Integrative Oncology were issued by SIO in 2009. These guidelines were the first evidence-based clinical practice guidelines in 2009 [17], aimed to help physicians choose which complementary therapies could be integrated into the care of their cancer patients. These guidelines advocate for evidence-based complementary therapies that support patients through their standard cancer treatment, to help reduce adverse effects, and improve their quality of life. More recently, the Society published guidelines for the care of breast cancer patients [18], which conclude that “there is a growing body of evidence supporting the use of integrative therapies, especially mind-body therapies, as effective supportive care strategies during breast cancer treatment”, while highlighting that many integrative practices still remain understudied. The guidelines have been endorsed by the American Society of Clinical Oncology ([ASCO](#)) [19]. In Germany, the German Cancer Society ([DKG](#)) together with the Working group of the Scientific Medical Societies ([AWMF](#)) came to similar conclusions [20].

It can be concluded that a growing body of evidence suggests the benefits of complementary and integrative therapies and their integration into conventional cancer care and that more studies and guidelines are needed for wider integration.

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

Integrative Medicine Cancer Interventions

Integrative Medicine Cancer interventions support cancer patients both in prevention and recurrence during remission, as well as during treatment, by optimising options for healthcare treatments, facilitating collaboration between oncologists and healthcare workers.

Lifestyle Management: Preventing Cancer and Recurrence During Remission

Oncologists conclude that several complementary medicine approaches targeting lifestyle management both improve the prognosis of cancer patients and also reduce the risk of cancer and its recurrence during periods of remission, in particular through nutrition, physical activities, and mental and emotional health.

Nutrition

Nutrition is vital in preventing malnutrition before, during and after cancer treatment [21]. Today, registered dietitians play a fundamental role in Integrative Oncology, not just for the management of specific cancer, but also in the prevention of cancer relapses. Nutrition facilitates cellular recovery and physical strength daily and is thus elemental in preventing the recurrence of cancer.

A systematic review and meta-analysis of cohort studies, including 117 studies enrolling 209 597 cancer survivors, suggests that adherence to a healthy dietary pattern (assessed predominantly prior to cancer diagnosis) is associated with a decreased risk of mortality in cancer survivors, whereas Western dietary patterns resulted in the opposite outcome [22].

Research shows that the risk of breast cancer recurrence is higher in women who are obese and lack dietary fruit and vegetables. A study also reveals that fat-loss-targeted dietary interventions translate to good clinical oncological outcomes [23]. In a similar correlation, a higher risk of prostate cancer relapse occurs in men who have a diet high in highly saturated fats [24].

As such, many institutions, including the American Institute for Cancer Research, recommend a diet rich in whole grains, vegetables, fresh fruits and beans and recommend avoiding consumption of 'fast foods' and other processed foods high in fat, starches or sugars, red and processed meat, sugar-sweetened drinks and alcohol [25]. In addition to relapse prevention, research suggests that dietary intake is also associated with mental wellbeing [24]. Poor nutrition can skew hormone ranges, inflammatory processes, and neuronal pathways, thereby negatively impacting cognitive function, stress levels, and increasing the risk of illness and relapse.

Physical activity

Studies suggest that physical exercise training improves a number of immune system parameters that may be important in cancer defence [26] [27]. Physical activities offered by complementary modalities such as yoga, tai chi, and eurythmy therapy help improve physical and mental health across a wide range of ages and health statuses [28]. Benefits to cancer patients range from reducing pain and fatigue to boosting mood and easing depression and anxiety.

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

Mental, emotional and spiritual health

Stress can induce behavioural or lifestyle modifications such as an increase in alcohol consumption, smoking, and an unhealthy diet [29]. These behaviours increase the risk of cancer relapses.

Cancer is a traumatic experience for any patient and mental, emotional and spiritual wellbeing have become a vital part of Integrative Oncology. Through counselling, patients with cancer and survivors of cancer can better accept and establish a new normal. They are also more resourced to cope with overwhelming fears of recurrence, and therefore stressors that lead to the above-mentioned behaviours in cancer patients are lowered.

Treatment: Optimising the Healthcare System

Integrative Oncology involves a diverse team of multidisciplinary healthcare professionals, including oncologists, nurses[c], psychologists, social workers, nutritionists, complementary medicine practitioners, yoga therapists, massage therapists, lifestyle coaches, and many other healthcare professionals. Effective coordination and real-time access to medical records are crucial in optimising the integrative healthcare system. Healthcare facilities providing Integrative Oncology can also contribute to improving the communication with patients, especially with those who initially refuse conventional treatments, and play a positive role in treatment refusal management.

Integrative Oncology includes the following treatment modalities:

- Complementary medicine modalities: acupuncture; homeopathy; herbal medicine; traditional Chinese medicine; ayurvedic medicine; anthroposophic medicine
- Mind-body modalities: meditation; mindfulness techniques; deep-breathing exercises; guided imagery; hypnotherapy; progressive relaxation; yoga; tai chi; eurythmy; music; speech and art therapy
- Nutritional supplements and diet: botanicals; vitamins; minerals; probiotics and other natural products
- Counselling; psychotherapy
- Touch therapies: massage; therapeutic touch; reflexology, nursing, external applications

Integrative Oncology, i.e., true integration of complementary modalities into oncology care, responds to the needs of all patients across the cancer continuum. The long-term goal of integrative oncology is to empower each individual to become an active participant in their health, from prevention and treatment to survivorship and end of life, using high-quality, safe, and effective therapies from both complementary and conventional medicine in a cohesive and coordinated manner.

[c] Given the holistic philosophy that is germane to nursing, more and more nurses are interested in gaining skills and integrating complementary therapies into their regular clinical oncology practice or becoming integrative health professionals.

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

Recommendations

Complementary Medicine approaches can be safely and effectively used by trained and competent professionals as a part of Integrative Oncology, in particular, to mitigate disease symptoms and side effects of conventional treatment. It also helps provide social, psychological and nutritional guidance for patient reintegration and rehabilitation. A multidisciplinary approach is of paramount importance. The evidence for the effectiveness of Integrative Oncology in cancer treatment is promising and it should be expanded and supported with adequate public funding [d].

Therefore, we call on the European Institutions to make Integrative Oncology fully part of the implementation of Europe's Beating Cancer Plan, along with other EU initiatives in this field [e]. Integrative Oncology should be considered in particular the following areas and related initiatives in the Europe's Beating Cancer Plan:

- **SUSTAINABLE CANCER PREVENTION: Integrative Oncology should be included in policies addressing Cancer Prevention, and in particular in the European Code Against Cancer and the EU Mobile App for Cancer Prevention, and the Healthy Lifestyle for All campaign.** *Integrative Oncology promotes patient-centred healthcare with focus on prevention of cancer and recurrence during remission, by addressing key risk factors, promoting healthy diets and physical activities and improving health literacy.*
- **HIGH STANDARDS IN CANCER CARE: Integrative Oncology should be included in policies and actions aiming at ensuring high standards in cancer care, in particular in the actions aimed at creating an EU Network of Comprehensive Cancer Centres, also to ensure equal access to complementary medicine for all cancer patients in Europe.** In addition, Integrative Oncology should be included in the upcoming inter-speciality cancer training program, in order to build a stronger multidisciplinary and multiprofessional cancer workforce. Currently delivery of and access to high-quality Integrative Medicine treatments for cancer patients varies greatly across Europe. The Competence Network on Integrative Medicine in Baden-Württemberg[f], sponsored by the regional Ministry of Social Affairs and Integration, represents an invaluable blueprint of sharing integrative oncology knowledge, good practices and experience to improve patient's lives, and deliver the highest-quality care that is based on personalised medicine in all stages of cancer.

[d] E.g. Following the 2020 USA Trans-National Cancer Institute-National Institutes of Health conference on international perspectives on Integrative Medicine for cancer prevention and cancer patient management, in Mao JJ et al. (2021). Integrative Oncology: Addressing the global challenges of cancer prevention and treatment. *CA Cancer J Clin*, doi: 10.3322/caac.21706

[e] E.g. EU4Health Programme

[f] <https://www.kim-bw.de>

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

- **IMPROVING QUALITY OF LIFE (QoL) FOR PATIENTS, SURVIVORS, AND CARERS:** **Integrative Oncology should be included in the data collection and analysis under the European Cancer Patient Digital Centre, for a qualitative and quantitative assessment of integrative cancer treatment impact on patients' and survivors' health conditions.** *Integrative Oncology focuses on improving Quality of Life (QoL) by responding to patients and survivors' need for active participation in treatment and desire for holistic cancer care. Studies show complementary and integrative medicine therapies can help patients with reduction in stress, depression, anxiety and having a positive attitude to healing and their future life.*
- **CHILDHOOD CANCER: Integrative Oncology should be part of developing and sharing best practices in the care for children with cancer,** in particular in the European Commission's "Childhood cancer and cancers in adolescent and young adults: cure more and cure better" project, under the Horizon Europe Cancer Mission to increase options for evidence-based Integrative Oncology treatments in paediatric cancer. *A systematic review including 7,219 children [8] showed that complementary medicine therapies are sought after in 12.4% (Italy) to 91.2% (Hungary) in cases of childhood cancers, in addition to their conventional therapy.*

In addition, we call on European Institutions to allocate dedicated **funding for Integrative Oncology research under Horizon Europe** to further expand the evidence on Integrative Oncology. For this reason, Integrative Oncology needs to be included in any current and future EU data collection initiative.

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

References

- [1] See https://ec.europa.eu/info/research-and-innovation/events/special-features/world-cancer-day_en [Retrieved 17 February 2022]
- [2] Jönsson B et al. (2016). The cost and burden of cancer in the European Union 1995–2014. *European Journal of Cancer*, 66:162-170
- [3] Witt CM et al. (2017). A Comprehensive Definition for Integrative Oncology. *Journal of the National Cancer Institute Monographs*, 1:2017(52).
- [4] See <https://integrativeonc.org> [Retrieved 17 February 2022]
- [5] Grant SJ et al. (2019). Integrative Oncology: International Perspectives. *Integrative Cancer Therapies*, 18(1): 1-11
- [6] Rossi E et al. (2015). Complementary and alternative medicine for cancer patients: results of the EPAAC survey on integrative oncology centres in Europe. *Support Care Cancer*, 23:1795-1806
- [7] Horneber M et al. (2012). How many cancer patients use complementary and alternative medicine: A systematic review and meta-analysis. *Integrative Cancer Therapies*, 11:187-203.
- [8] Diorio C et al. (2017). Global Use of Traditional and Complementary Medicine in Childhood Cancer: A Systematic Review. *Journal of Global Oncology*, 3(6):791-800.
- [9] Molassiotis A et al. (2005). Use of complementary and alternative medicine in cancer patients: a European survey. *Ann Oncol*, 16(4):655-63
- [10] Dufter SA et al. (2021) Traits of cancer patients and CAM usage. *Journal of Cancer Research and Clinical Oncology*. doi.org/10.1007/s00432-021-03605-7
- [11] Skaczkowski G et al. (2013). Complementary medicine and recovery from cancer: the importance of post-traumatic growth. *Eur J Cancer Care (Engl)*, 22(4):474-83.
- [12] Evans MA et al. (2007). Men with cancer: is their use of complementary and alternative medicine a response to needs unmet by conventional care? *European Journal of Cancer Care*, 16: 517-525
- [13] Balneaves LG, Watling CZ. "Part of the Conversation": A Qualitative Study of Oncology Healthcare Professionals' Experiences of Integrating Standardized Assessment and Documentation of Complementary Medicine. *Integrative Cancer Therapies*. January 2022. DOI:10.1177/15347354221077229
- [14] Rossi E et al. (2017). Add-On Complementary Medicine in Cancer Care: Evidence in Literature and Experiences of Integration. *Medicines (Basel)*, 24:4(1).
- [15] See <http://cam-cancer.org/en> [Retrieved 17 Feb 2022]
- [16] See <https://integrativeonc.org/knowledge-center/monthly-integrative-oncology-digest> [Retrieved 17 February 2022]
- [17] Deng GE et al. (2009). Evidence-Based Clinical Practice Guidelines for Integrative Oncology: Complementary Therapies and Botanicals. *Journal of the Society for Integrative Oncology*, 7: 3, 85-120
- [18] Greenlee H et al. (2017). Clinical Practice Guidelines on the Evidence-Based Use of Integrative Therapies During and After Breast Cancer Treatment. *CA Cancer Journal for Clinicians*, 67(3):194-232.
- [19] Lyman GH et al. (2018). Integrative Therapies During and After Breast Cancer Treatment: ASCO Endorsement of the SIO Clinical Practice Guideline. *J Clin Oncol* 36:2647-2655.
- [20] See <https://www.leitlinienprogramm-onkologie.de/leitlinien/komplementaermedizin> [Retrieved 17 February 2022]
- [21] Zhang YB, Pan XF, Chen J, Cao A, Zhang YG, Xia L, Wang J, Li H, Liu G, Pan A. Combined lifestyle factors, incident cancer, and cancer mortality: a systematic review and meta-analysis of prospective cohort studies. *Br J Cancer*. 2020 Mar;122(7):1085-1093. doi: 10.1038/s41416-020-0741-x. Epub 2020 Feb 10. PMID: 32037402; PMCID: PMC7109112.
- [22] Schwedhelm C et al. (2016) Effect of diet on mortality and cancer recurrence among cancer survivors: a systematic review and meta-analysis of cohort studies. *Nutrition Reviews*, 74(12):737-748.
- [23] Dieli-Conwright CM et al. (2016). Reducing the Risk of Breast Cancer Recurrence: an Evaluation of the Effects and Mechanisms of Diet and Exercise. *Curr Breast Cancer Rep*. 2016; 8(3): 139-150.
- [24] Langlais CS et al. (2021). Post-Diagnostic Dietary and Lifestyle Factors and Prostate Cancer Recurrence, Progression, and Mortality *Curr Oncol Rep*, 23(3):37
- [25] See <https://www.wcrf.org/wp-content/uploads/2021/02/Summary-of-Third-Expert-Report-2018.pdf> [Retrieved 17 Feb 2022]
- [26] Adan RAH et al. (2019). Nutritional psychiatry: Towards improving mental health by what you eat. *European Neuropsychopharmacology*, 29(12),1321-1332
- [26] Fairey AS et al. (2002). Physical Exercise and Immune System Function in Cancer Survivors - A Comprehensive Review and Future Directions. *Cancer*, 94:539-51.
- [27] Kruijssen-Jaarsma M et al. (2013). Effects of exercise on immune function in patients with cancer: a systematic review. *Immunol Rev*, 19:120-43
- [28] Cramer H et al. (2017). Yoga for improving health-related quality of life, mental health and cancer-related symptoms in women diagnosed with breast cancer. *Cochrane Database Syst Rev*, 1(1):CD010802.
- [29] Mao JJ et al. (2021). Integrative Oncology: Addressing the global challenges of cancer prevention and treatment. *CA Cancer J Clin*, DOI: 10.3322/caac.21706

The role of Complementary Medicine (CAM) and Integrative Oncology in the context of cancer

EUROCAM

EUROCAM is a European platform for organisations representing patients, medical doctors, veterinarians, and practitioners in the sector of Traditional, Complementary, and Integrative Medicine (TCIM). EUROCAM aims to promote the contribution of TCIM to better health in Europe. EUROCAM is an independent non-profit and non-governmental European umbrella organisation.

EUROCAM represents acupuncture, Ayurveda, anthroposophic medicine, herbal medicine, homeopathic medicine, naturopathic or traditional European medicine, reiki therapy, and traditional Chinese medicine. The practice of TCIM modalities is based on clinical expertise and the best available clinical evidence from scientific research built over the last few decades.

EUROCAM runs the secretariat of the MEP Interest Group on Integrative Medicine & Health

EUROCAM is accredited as a non-state actor to the WHO Regional Office for Europe

Office: Rue du Trône 194, 1050 Brussels, Belgium
secretariat@cam-europe.eu | www.cam-europe.eu

