

**CLL SOCIETY**

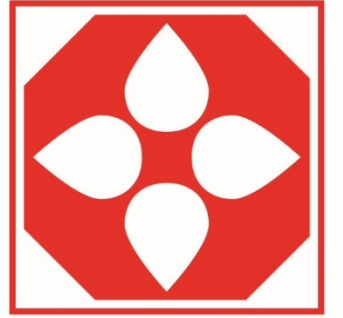
*Smart Patients Get Smart Care™*

# **Navigating Integrative Medicine Approaches in CLL**

**March 19, 2024**

**9:30 AM PT, 10:30 AM MT  
11:30 AM CT, 12:30 PM ET**

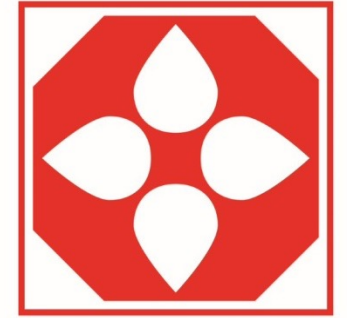
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# Speakers



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## CLL Society Staff



**Speaker**

**Onyemaechi Okolo-Taku, MD**

Medical Oncologist  
Ironwood Cancer & Research Centers  
Gilbert and Chandler, AZ



**Welcome**

**Robyn Brumble, MSN, RN**

Director of Scientific Affairs and  
Research  
CLL Society



**Speaker**

**Stephen S. Brown**

CLL Patient Advocate

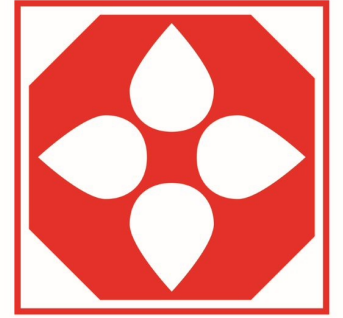


**Moderator**

**Brian Koffman, MDCM (retired)**

**MS Ed**

Executive Vice President and  
Chief Medical Officer  
CLL Society



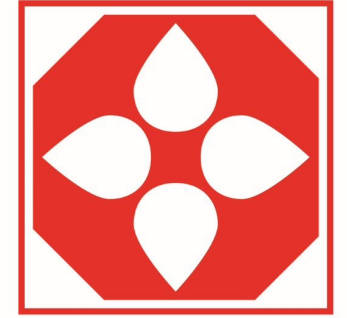
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There are currently no significant sources of funding for Integrative Medicine research in CLL, so your support can truly make a difference.

To learn more about a great matching gift opportunity to help fund CLL Society's integrative medicine research please visit:

<https://cllsociety.org/im>

# CLL Society Resources

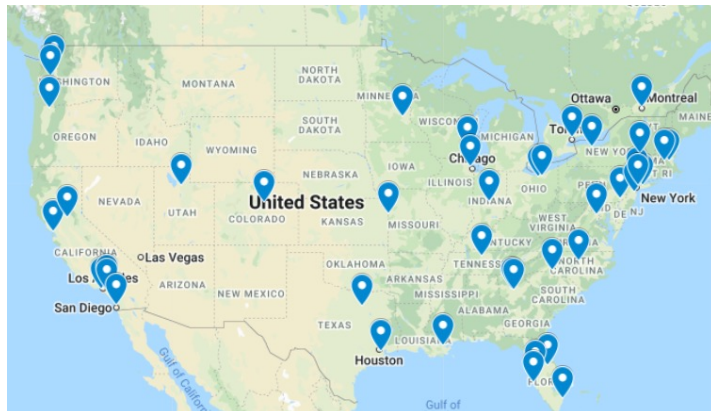


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## CLL / SLL Patient and Care Partner Support Groups

- Over 40 support groups meeting virtually each month for a source of guidance and community.
  - Geographically based
  - Watch & Wait
  - Veterans with CLL/SLL

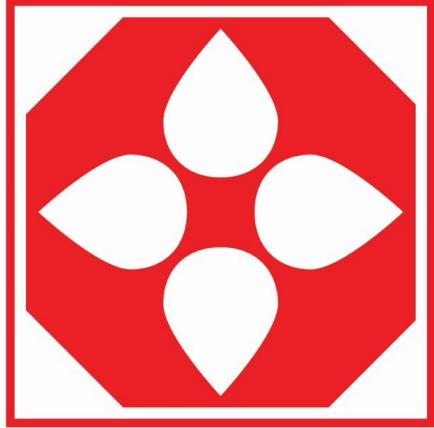
<https://cllsociety.org/support-groups/>



## Emotional & Spiritual Advocate Program

- 1-on-1 support from a board-certified chaplain for people of all faiths or no faith background.
- Help with exploring coping mechanisms, spiritual/theological reflection, meaning making, goals of care conversations, grief/bereavement support, and more.

<https://cllsociety.org/emotional-advocate>



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# Navigating Integrative Medicine Approaches in CLL

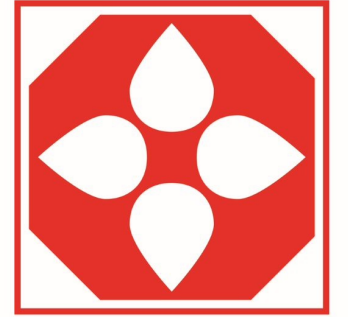
Onyema Okolo-Taku, MD

March 19, 2024

# Introduction



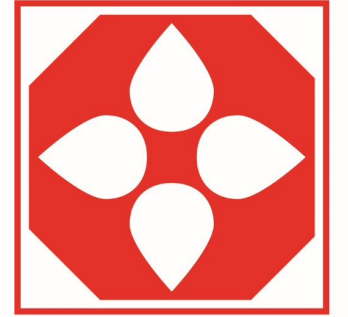
Dr. Onyema Okolo-Taku  
Residency in Internal Medicine  
Hematology & Oncology Fellowship  
Integrative Medicine Fellowship  
University of Arizona



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Why did I choose Hematology & Oncology?  
What led me to Integrative Medicine?  
IM Focus: Nutrition

# Table of Contents

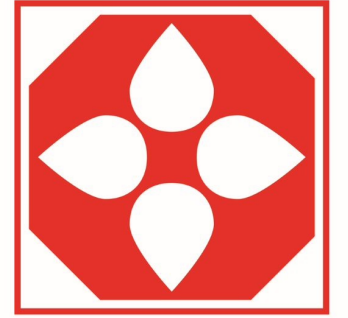


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- Definition: CLL/SLL
- What is Integrative Medicine?
- What is Integrative Oncology?
- Why consider Integrative Medicine as part of the CLL journey?
- What is the data on certain IM approaches in hematologic cancers such as CLL?
  - Focus: Nutrition and cancer related fatigue



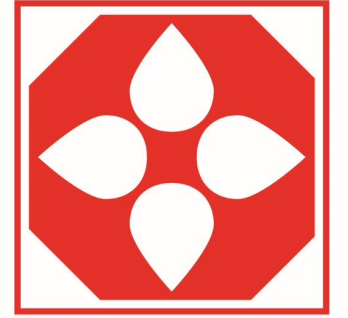
# CLL / SLL Definition Simplified



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- Chronic lymphocytic leukemia is a cancer affecting the white blood cells, specifically mature B cells. It is a non-Hodgkin lymphoma (NHL) and the cells typically have a CD5+ marker.
- Clones of these abnormal mature B cells accumulate in the body and disrupt normal functions.
- Another entity, small lymphocytic lymphoma (SLL), has identical CD5+ cells seen in CLL, but is characterized by lymph node involvement only.

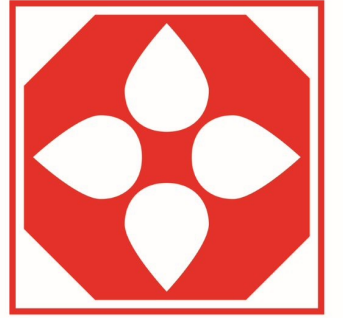
# CLL / SLL: Signs + Symptoms



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- For many people, CLL is discovered incidentally, through a routine CBC which will show a high number of lymphocytes.
- Others are diagnosed due to development of painless enlarged nodes.
- A smaller percentage of people are diagnosed after they seek evaluation for symptoms such as low-grade fever for > 2 weeks (with no source of infection), intense fatigue, unintentional weight loss, and drenching night sweats.
- Even rarer still are those who present with immunodeficiency disorders such as hemolytic anemia, pure red cell aplasia, and thrombocytopenia.

# The Big Question

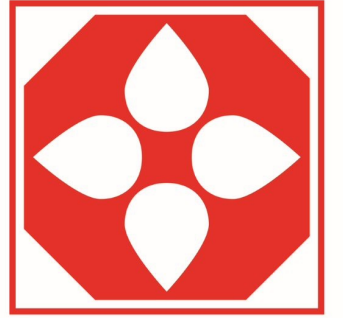


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- Although CLL can be an indolent disease, symptoms such as intense fatigue can be very disruptive to a person's QoL.
- In fact, cancer related fatigue (CRF) is one of the most frequently cited complaints by people with cancer.

Many patients ask: *What more can I be doing?*

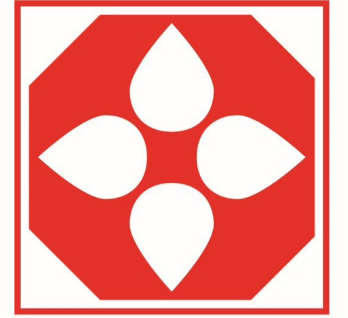
# Integrative Medicine



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- Integrative medicine (IM) is a growing field of medicine that combines the most well-researched conventional medicine with the most well-researched, evidence-based complementary therapies to achieve appropriate care for each person.
- It is whole-person centered, understanding that health care involves not just physical, but mental, emotional, and spiritual care.

# Integrative Oncology

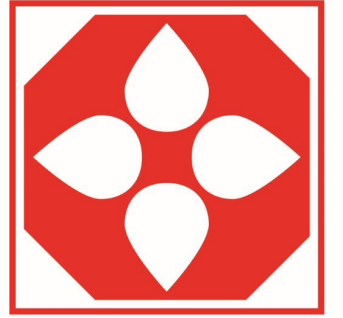


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Society For Integrative Oncology (SIO) Definition:

“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.”

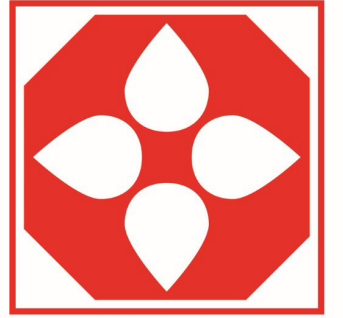
# Why Consider Integrative Oncology?



CLL SOCIETY

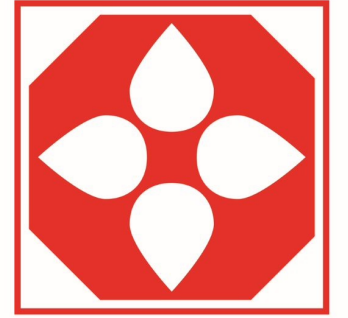
- According to the World Cancer Research Fund / American Institute for Cancer Research, the most common unmet needs among people with cancer are psychological, including:
  - Anxiety
  - Depression
  - Fear of cancer recurrence
  - Cognitive problems

# Why Consider Integrative Oncology?



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- As a result, it is estimated that 33-47% of people with cancer use some sort of complementary, alternative, or integrative therapy during cancer treatment.
  - One report estimates about 89% of people diagnosed with NHL use complementary and Integrative Medicine.
- The problem with this statistic is that most patients undertake this journey alone; most people do not share their use of non-conventional therapies with their treating oncologist.
  - Without complete knowledge of a patient's medication and supplement use, dangerous drug interactions could occur.
  - Patients may inadvertently be putting themselves at risk by utilizing practices with limited or no evidence that could reduce the efficacy of cancer treatments.

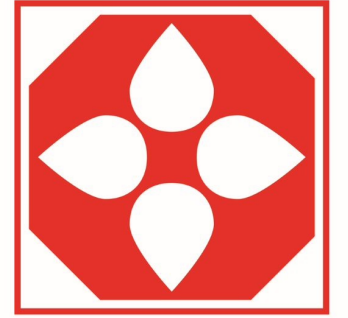


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- Integrative Oncology is a partnership between patient and practitioner and there is growing evidence to support the use of integrative medicine in cancer care, including non-Hodgkins lymphoma, such as CLL/SLL.
- Integrative Medicine approaches can help fill the gap in unmet needs.



# Example of Integrative Medicine Approaches

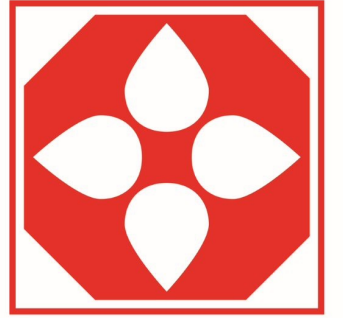


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- Nutrition
- Exercise
- Botanicals and Supplements
- Movement Medicine, Meditation, and Mindfulness
- Energy Medicine
- Medicine from other cultures: TCM\*, TKM\*, Ayurveda etc.

*\*Traditional Chinese Medicine; Traditional Korean Medicine*

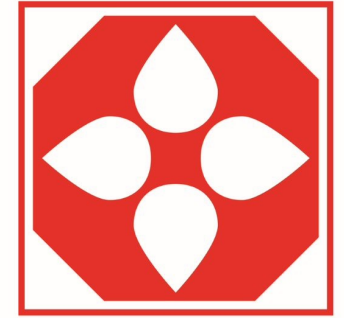
# Nutrition and Nutritional Status



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- “Is there something I can eat to fight this?”
- “Should I cut out sugar?”
- “Was this caused by bad diet?”
- “Do I need to eat organic foods only?”
  
- Researchers have found that dietary factors are among the leading cause of death in 195 countries, including the United States; this is a greater disease burden than smoking.
- In fact, poor nutrition can reduce survival in many cancers, and can make it hard to tolerate cancer directed therapies.

# Nutrition and Nutritional Status



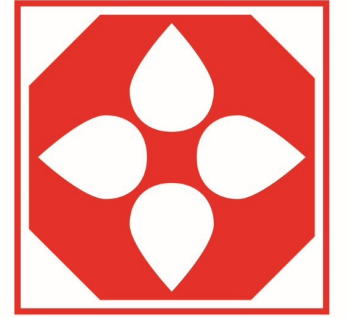
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- CONUT score (controlling nutritional status)
  - Looks at serum albumin, total cholesterol, lymphocyte count
  - Shown to independently affect prognosis of patients with BCL and TCL.
  - A low score <4 (normal and mildly impaired nutritional status) was associated with better progression-free survival and overall survival in patient with an aggressive lymphoma like DLBCL.

Parameters	Normal	Mild	Moderate	Severe
Serum albumin (g/mL)	≥3.5	3.0–3.4	2.5–2.9	<2.50
Score	0	2	4	6
Total lymphocyte count	≥1,600	1,200–1,599	800–1,199	<800
Score	0	1	2	3
Total cholesterol (mg/dL)	≥180	140–179	100–139	<100
Score	0	1	2	3
Total score	0–1	2–4	5–8	9–12
Dysnutritional states	Normal	Mild	Moderate	Severe

CONUT, controlling nutritional status.

# Supplements

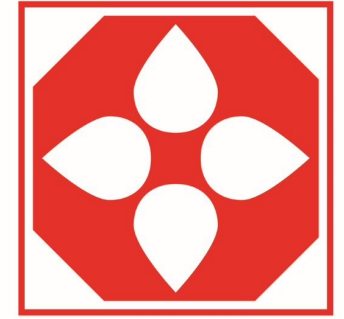


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The use of high dose supplements have not consistently demonstrated “protective effects of micronutrient with regard to cancer risk”, therefore the recommendation is that focusing on balanced and healthy dietary intake is more likely protective against cancer.

# Green Tea Extract or Epigallocatechin Gallate (EGCG) and Turmeric (Curcumin)



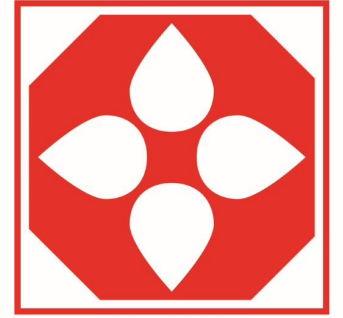
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**EGCG: MAYO Phase 2 study** of Polyphenon E capsules containing ~200 mg of EGCG (this proprietary product is not available now) at a dose of 2000 mg twice daily for 6 months in 42 patients.

- The most common side effects were nausea, diarrhea, liver inflammation, mostly mild.
- Twelve patients discontinued therapy early (9 from adverse events, 3 due to disease progression).
- One patient had a partial remission (overall response rate, 2.4%).
- 30% of patients had a decline in their ALC of  $> 20\%$  for  $\geq 2$  months, and  $\sim 70\%$  of those with enlarged nodes experienced a  $> 50\%$  reduction in node size as determined by physical examination.
- Generally considered safe with liver inflammation a concern but it's rare: need to monitor liver tests.



# Turmeric (Curcumin)



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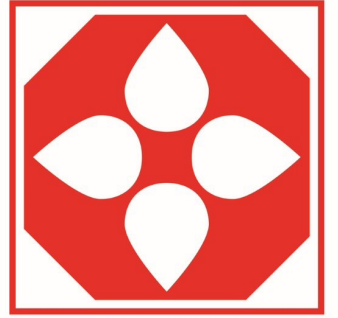


**Curcumin** is the likely active agent in the common yellow spice turmeric, used in many curries.

- **1 CLL trial:** 21 patients with high ALC, stage 0 to 1 CLL received 2000 mg of curcumin daily for 6 mos.
- Generally, well tolerated and safe, but some nausea and diarrhea.
- No objective responses, but 4 patients showed a > 20% reduction in ALC, but it increased after stopping

**SUMMARY:** Both green tea and curcumin are likely safe with some activity but efficacy is unproven and may be minimal

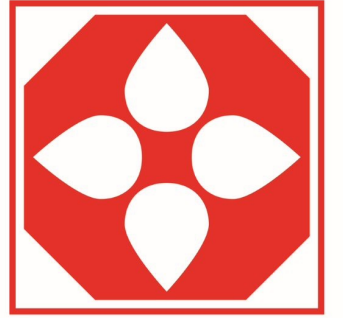
# Sugar



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- Higher fasting insulin levels are associated with increased risk of recurrence and death in breast cancer, but the data is unclear in hematologic malignancies.
- Sugar present in foods naturally does not appear to be problematic, but there is increasing data that suggests that consumption of added sugars and sugary beverages, artificial sweeteners, as well as high dietary glycemic loads can affect treatment response and risk of relapse in certain types of cancers.

# Sugar



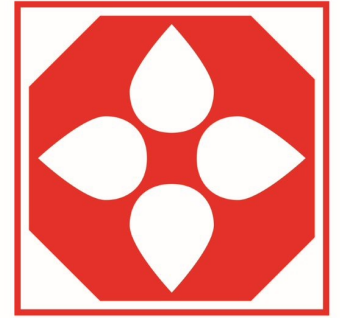
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- Aspartame, artificial sweetener, may increase risk of hematologic malignancies.
  - This is especially important because many people with cancer try to decrease their sugar intake and end up increasing intake of artificial sugars.



# Organic Food

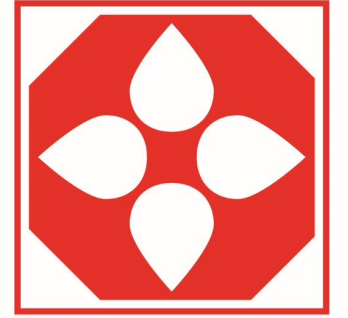
- Organic foods are foods produced without synthetic chemicals or fertilizers, pesticides, genetic engineering, or radiation.
- Research has shown that several pesticides are carcinogenic, in fact, research on occupational pesticide exposure has shown that there is an association with pesticide residue and increased risk of non-Hodgkin lymphoma.
- High organic food intake has been shown to be associated with a decreased risk of developing non-Hodgkin lymphoma.



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# Organic Food



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- BUT organic food is expensive, therefore the American Cancer Society notes that for individuals with limited resources, it is more important to prioritize a diet rich in vegetables and fruits.
- The Clean 15 vs the Dirty Dozen
  - Foods on the “clean 15” list do not need to be purchased organic
  - Foods on the “Dirty Dozen” list should be purchased organic when possible.

# The Environmental Working Group's 2023 Dirty Dozen List

The fruits and veggies with the most pesticide residues



1. Strawberries



2. Spinach



3. Kale, Collard & Mustard Greens



4. Peaches



5. Pears



6. Nectarines



7. Apples



8. Grapes



9. Bell & Hot Peppers



10. Cherries



11. Blueberries



12. Green Beans

With the exception of cherries, 50+ pesticide types were detected on samples of the Dirty Dozen.

Over 90% of strawberry, apple, cherry, spinach, nectarine, and grape samples contained pesticide residue.

AlgaeCal

Source: <https://www.ewg.org>

# The Environmental Working Group's 2023 Clean Fifteen List

The fruits and veggies with the least pesticide residues



1. Avocado



2. Sweet Corn



3. Pineapples



4. Onions



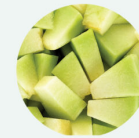
5. Papayas



6. Sweet Peas (frozen)



7. Asparagus



8. Honeydew Melon



9. Kiwi



10. Cabbage



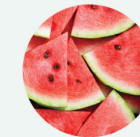
11. Mushrooms



12. Mangoes



13. Sweet Potatoes



14. Watermelon



15. Carrots

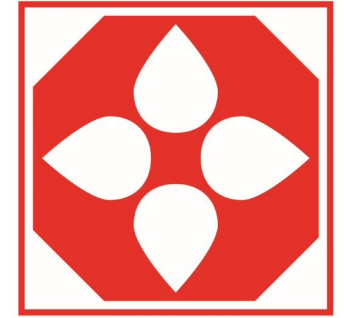
\*A small amount of sweet corn, papaya and summer squash sold in the United States is produced from genetically modified seeds. Buy organic varieties of these crops if you want to avoid genetically modified produce

Less than 2% of avocados and sweet corn samples showed any detectable pesticides.

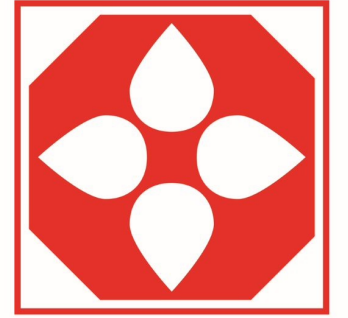
Almost 65% of Clean Fifteen samples had no pesticide residues.

AlgaeCal

Source: <https://www.ewg.org>



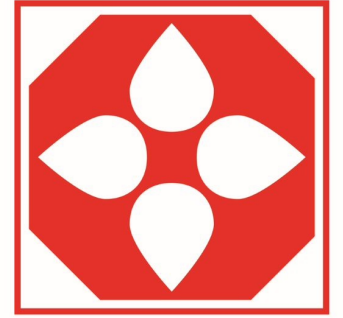
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- Certain fruits and vegetables such as beans, berries, garlic, cruciferous vegetables, flaxseed, green tea, and tomatoes may be beneficial in preventing cancer recurrence.
- Whereas consumption of food from animals, such as red meat, milk, and dairy, may lead to relatively increased risk of developing hematologic malignancies.
- SIO recommends a Mediterranean style diet.

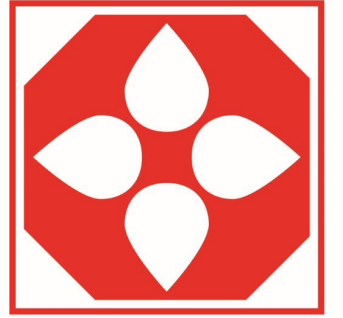
# Mediterranean Diet



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- So, what is the Mediterranean diet?
  - Lots of plant based, minimally processed foods such as fruits, vegetables, whole grains, nuts and legumes
  - Principal source of fat is olive oil
  - Cheese and yogurt, consumed daily in low to moderate amounts
  - Fish and poultry, consumed in low to moderate amounts a few times a week
  - Red meat, consumed infrequently and in small amounts
  - Fresh fruit for dessert, limiting sweets containing added sugars
  - Wine consumed in low to moderate amounts
- The patients who had higher MEDLIFE scores were found to have a 29% lower risk of all-cause mortality and a 28% lower risk of cancer mortality compared with those who had lower MEDLIFE score.

# Cancer Related Fatigue

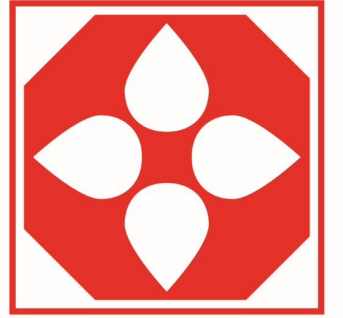


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- Fatigue is a common complaint in people with CLL, and at times is the only physical symptom.
- Fatigue in CLL is not usually alleviated simply by resting; it is thought to be related to immunologic process that occurs with CLL.
- SIO recommends proper diet, hydration, and physical activity to help alleviate CRF.

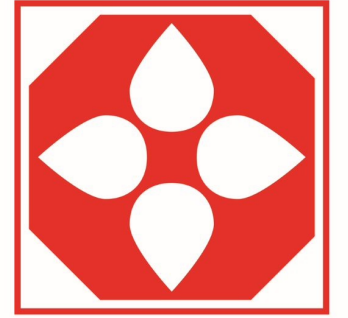
# Cancer Related Fatigue

- A meta-analysis of 113 studies revealed that pharmacological treatments do not improve CRF significantly, while exercise and psychological interventions have a positive effect.
- Additional Tools That Can Help:
  - Acupuncture and acupressure
    - A 2020 meta-analysis showed that acupuncture treatments, when performed by a trained professional, reduced cancer related fatigue by a significant factor compared to the control group.



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# Cancer Related Fatigue

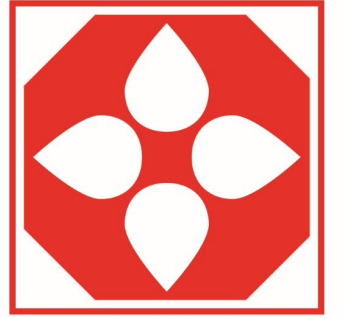


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- Additional Tools That Can Help:
  - Touch therapies (massage, Shiatsu, reflexology)
  - Nutrition and nutritional supplements
  - Mind-Body Therapies (mindfulness and hypnosis, yoga, Tai-chi, Qigong)
  - Circadian rhythm management (blood melatonin levels)
    - One study showed that serum melatonin levels were considerably lower in patients with CLL than in healthy individuals, therefore good sleep habits are also important, and melatonin supplementation can be considered



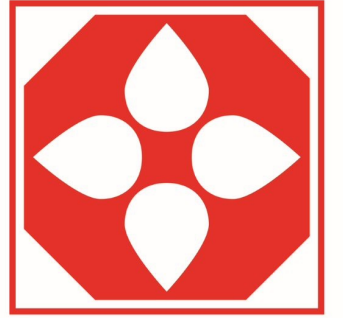
# Cancer Related Fatigue



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- Exposure to morning bright light can reduce chemotherapy related fatigue.
- Omega-3-fatty acids, EPA + DHA, which can be found in fish, limited amounts in flaxseed oil, soy oil, and walnut oil, can not only decrease the risk of total mortality and mortality from cancer, but studies have shown that it can decreased CRF
- American ginseng improves symptoms related to CRF

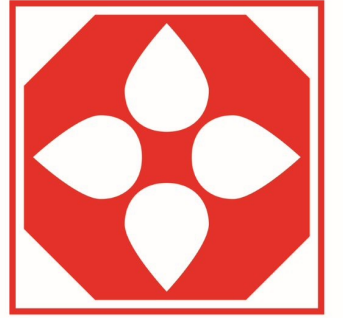
# But wait, there's more...



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- There are so many more integrative medicine approaches when it comes to managing cancer, that can also be individually tailored to each person.
- Interest in IM is growing, and chances are that there is a cancer center close to you that is (starting to) prioritizing IM modalities in patient care.
- If you are interested in an IM consultation you can search for graduates from the AWCIM who are actively practicing using this link:
  - <https://integrativemedicine.arizona.edu/alumni.html>

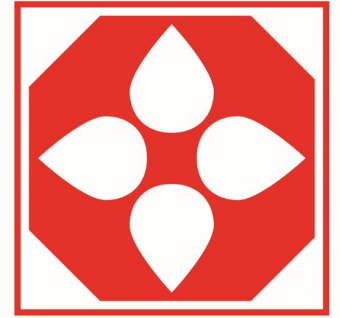
Thank  
You



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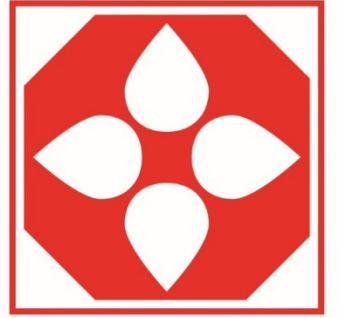
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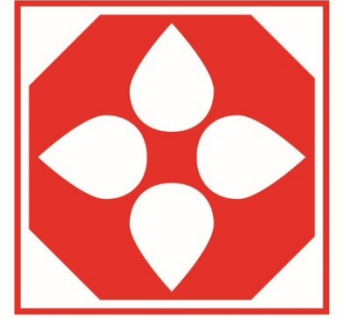


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Please take a moment to complete our **post-event survey**, your feedback is important to us



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If your question was not answered, please feel free to email [asktheexpert@cllsociety.org](mailto:asktheexpert@cllsociety.org)

Join us for our next virtual event “Ask Me Anything” taking place on April 11<sup>th</sup>.

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