

Survivorship Needs For People Living With Advanced And Metastatic Cancer

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Integrative
Cancer
Care

Disclosures

Nothing to disclose

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Objectives

- Understand a whole person approach to survivorship care
- Describe two comorbidities that affect survivors
- List three lifestyle changes that can improve overall health and wellness in a cancer survivor
- Briefly discuss modalities that can be helpful during treatment and after

Advanced Disease and Metastasis

- What are the issues
- What are the concerns
- What is important
- What are the needs
- Strategies to reaching goals - overall health and wellness
- What else can one do

Survivorship Issues

- 41% of women over the age of 21 are obese
 - 74% of the country is overweight or obese
 - 45% of women have high blood pressure
- 1 out of 9 women will get Type 2 Diabetes
- 1 out of 8 women will develop a thyroid problem
- 80% of autoimmune issues happen to women
 - 50 million people have an autoimmune disease
- 25% of young adults have fatty liver disease
- 88% of Americans are metabolically unhealthy

O'Hearn, Meghan, Brianna N. Lauren, John B. Wong, David D. Kim, and Dariush Mozaffarian. "Trends and Disparities in Cardiometabolic Health among U.S. Adults, 1999-2018." *Journal of the American College of Cardiology* 80, no. 2 (July 12, 2022): 138–51. <https://doi.org/10.1016/j.jacc.2022.04.046>.

Araújo J, Cai J, Stevens J. Prevalence of Optimal Metabolic Health in American Adults: National Health and Nutrition Examination Survey 2009-2016. *Metab Syndr Relat Disord*. 2019 Feb;17(1):46-52. doi: 10.1089/met.2018.0105. Epub 2018 Nov 27. PMID: 30484738.

Survivorship Concerns

- Estimated 18.1 million cancer survivors
 - By 2040 this number is projected to grow to 26 million.
- Quality of life after or during treatment
 - functional limitations
 - mobility
 - financial
 - co-morbidities
- Fear of recurrence
- Mental and emotional issues
- Information overload and what is real

Survivorship Needs

- Whole person care versus cancer focus
 - Physical
 - Behavioral - who are you?
 - Social and emotional
 - Mental and spiritual
- Resources
 - Meet the patient where they are.....

Top Comorbidities in Cancer Patients

Diabetes

Liver Disease

Hypertension

Kidney Disease

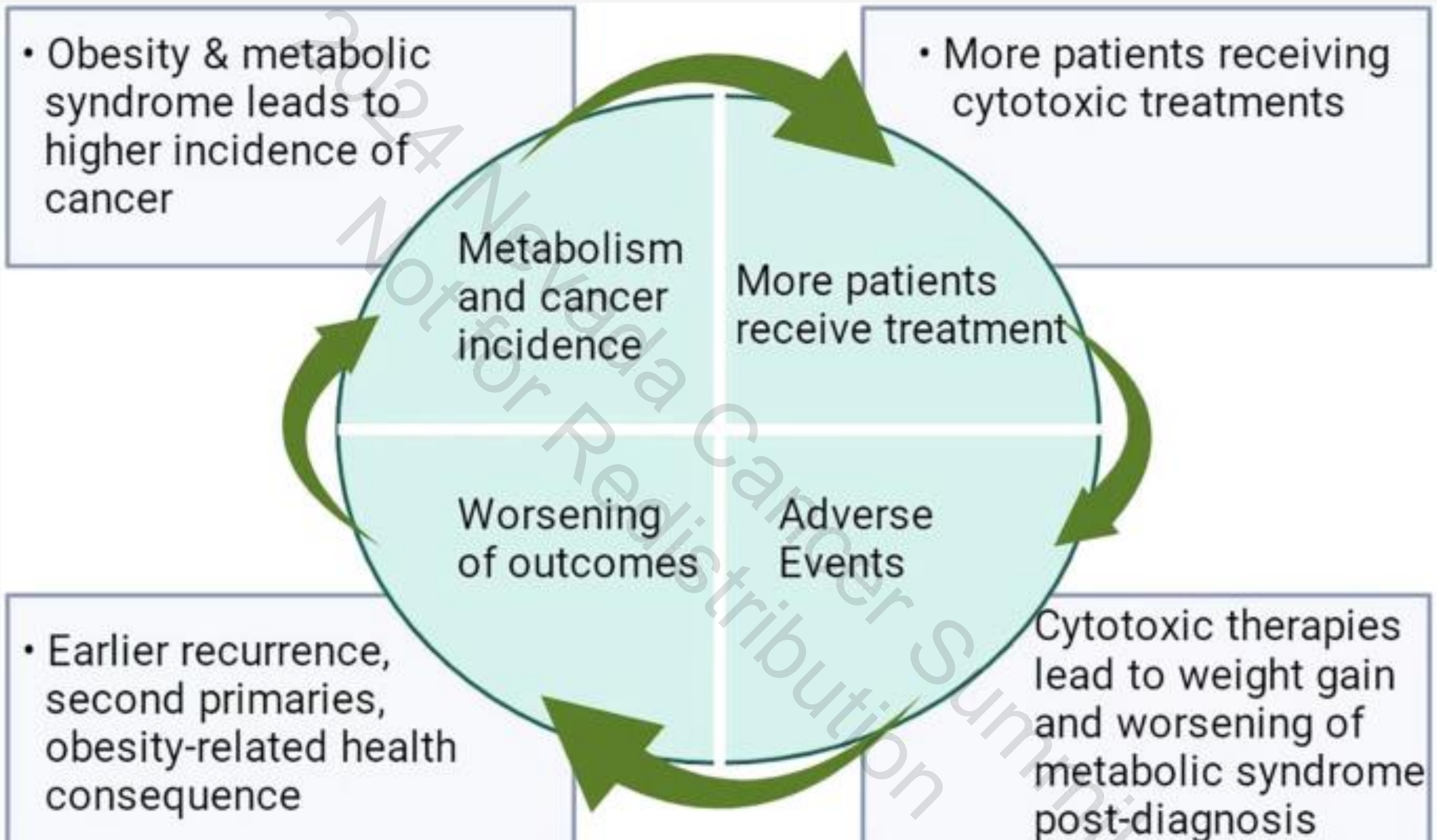
Obesity

Dyslipidemia

Jiang C, Deng L, Karr MA, Wen Y, Wang Q, Perimbeti S, Shapiro CL, Han X. Chronic comorbid conditions among adult cancer survivors in the United States: Results from the National Health Interview Survey, 2002-2018. *Cancer*. 2022. <https://doi.org/10.1002/cncr.33981>

Zullig, L, Sung, A, Khouri, M. et al. Cardiometabolic Comorbidities in Cancer Survivors: JACC: CardioOncology State-of-the-Art Review. *J Am Coll Cardiol CardioOnc*. 2022 Jun, 4 (2) 149–165.

<https://doi.org/10.1016/j.jco.2022.02.005>



Saw, P.E., Song, E. (2023). Systemic Onco-Sphere: Host Metabolic System and Cancer. In: Song, E. (eds) Tumor Ecosystem. Springer, Singapore. https://doi.org/10.1007/978-981-99-1183-7_24

The Importance

- Epigenetics
- Hormone balance
- Inflammation
- Toxic burden
- Stress and biorhythms
- Mental/emotional health
- Immune function
- Blood circulation
- Blood sugar balance
- Microbiome



Adapted from Dr. Nasha Winters

Assessing Metabolic, Inflammatory and Mitochondria Health - Labs

Standard Labs:

- CBC with a Differential
- CMP
- Liver Profile (including GGT)
- Vitamin D

Metabolic Labs:

- Full lipid panel (fasting)
- Fasting Insulin
- Fasting Glucose
- Hemoglobin A1c

Inflammatory labs:

- hs-CRP
- LDH
- ESR
- Uric Acid
- Homocysteine and MMA

Evaluation of SNPs

- Digestion
- Methylation
- Hormones
- Cognition and mental health
- Inflammation and antioxidant
- Detoxification
- Cardiovascular health
- Athletic Performance
- DNA protection, damage and repair

Strategies To Reaching Goals For Overall Health and Wellness

- Nutrition
- Movement
- Sleep
- Stress reduction
 - Work
 - Relationship
 - Community
- Creating a healing environment
 - Eliminating toxins
- Understanding what matters most to the individual patient

Nutrition

- Food as medicine - we should be recommending whole foods and clean eating. Not “eat whatever you can or whatever you want.”
 - Optimize nutritional status
 - Avoidance of vegetable and seed oils
 - Decrease/elimination of added sugar
 - Optimize gut function/microbiome (probiotics rich foods)
 - Glucose management
 - Weight management

Morales-Berstein, F., Biessy, C., Viallon, V. et al. Ultra-processed foods, adiposity and risk of head and neck cancer and oesophageal adenocarcinoma in the European Prospective Investigation into Cancer and Nutrition study: a mediation analysis. *Eur J Nutr* 63, 377–396 (2024). <https://doi.org/10.1007/s00394-023-03270-1>

Zhifei Chen, Fabian Leinisch, Ines Greco, Wei Zhang, Nan Shu, Christine Y. Chuang, Marianne N. Lund, Michael J. Davies, P-8 - Characterization and quantification of protein oxidative modifications and amino acid racemization in powdered infant milk formula, *nFree Radical Biology and Medicine*, Volume 120, Supplement 1, 2018, Page S47, ISSN 0891-5849, <https://doi.org/10.1016/j.freeradbiomed.2018.04.155>.

THESE FOODS DON'T BELONG IN YOUR PROPER HUMAN DIET



MARGARINE



SEED OILS



PROCESSED GRAINS



PLANT-BASED MEAT



DESSERTS



PLANT MILKS



ADDED SUGAR



FRIED STARCHES



JUICE



MOST PACKAGED & PROCESSED FOODS



PLANT BUTTER



SODA

Sleep

- Quality, quantity and consistency matter
- Lack of sleep increases risk for:
 - metabolic syndrome and disease
- Lack of sleep increases:
 - oxidative stress
 - mitochondrial dysfunction
 - chronic inflammation
 - microbiome dysfunction

Knutson, Kristen L. "Impact of Sleep and Sleep Loss on Glucose Homeostasis and Appetite Regulation." *Sleep Medicine Clinics* 2, no. 2 (June 2007): 187–97. <https://doi.org/10.1016/j.jsmc.2007.03.004>.

Andreazza, Ana C., Monica L. Andersen, Tathiana A. Alvarenga, Marcos R. de-Oliveira, Fernanda Armani, Francieli S. Ruiz, Larriany Giglio, José C.F. Moreira, Flávio Kapczinski, and Sergio Tufik. "Impairment of the Mitochondrial Electron Transport Chain Due to Sleep Deprivation in Mice." *Journal of Psychiatric Research* 44, no. 12 (September 2010): 775–80. <https://doi.org/10.1016/j.jpsychires.2010.01.015>.

Sleep

- Blue light exposure
- Screen time
- Nature deficit disorder
 - Loss of connection to the natural rhythm of the world (nature) around us
- Medication
- Overdoing
- Overworking

Vgontzas, A. N., E. Zoumakis, E. O. Bixler, H.-M. Lin, H. Follett, A. Kales, and G. P. Chrousos. "Adverse Effects of Modest Sleep Restriction on Sleepiness, Performance, and Inflammatory Cytokines." *The Journal of Clinical Endocrinology & Metabolism* 89, no. 5 (May 1, 2004): 2119–26. <https://doi.org/10.1210/jc.2003-031562>.

Gao, Ting, Zixu Wang, Yulan Dong, Jing Cao, and Yaoxing Chen. "Butyrate Ameliorates Insufficient Sleep-Induced Intestinal Mucosal Damage in Humans and Mice." *Microbiology Spectrum* 11, no. 1 (December 21, 2022). <https://doi.org/10.1128/spectrum.02000-22>.

Movement

- daily functional fitness
- strength training
 - muscle development
 - balance work
- aerobic activity
- improved metabolic function
 - increased muscle mass
 - decrease fat mass
- decreases chronic inflammation
- improved muscle and bone health and strength

Dagfinn Aune, et al., Physical Activity and Health-Related Quality of Life in Women With Breast Cancer: A Meta-Analysis, JNCI Cancer Spectrum, Volume 6, Issue 6, December 2022, pkac072, <https://doi.org/10.1093/jncics/pkac072>

[Dennis R. Taaffe](#), [Tracey L. Robinson](#), [Christine M. Snow](#), [Robert Marcus M.D.](#), High-Impact Exercise Promotes Bone Gain in Well-Trained Female Athletes; December 2009 <https://doi.org/10.1359/jbmr.1997.12.2.255>

Mental/Emotional

- ~40% of women - diagnosed with depression in their lifetime
- ~1/3 of women - diagnosed with anxiety in their lifetime
- over 75% of young people feel unsafe daily
- ~75% of Americans reported health impacts from stress in the past month (2022)
- Increase in depression and anxiety in young people

Witters, Dan. "U.S. Depression Rates Reach New Highs." Gallup, May 17, 2023. <https://news.gallup.com/poll/505745/depression-rates-reach-new-highs.aspx>.

"Any Anxiety Disorder." National Institute of Mental Health, n.d. <https://www.nimh.nih.gov/health/statistics/any-anxiety-disorder>.

Kitanovska, Simona. "Younger Americans Most Likely To Feel Unsafe on a Daily Basis: Poll." Newsweek, July 28, 2022. <https://www.newsweek.com/young-americans-most-likely-feel-unsafe-daily-basis-poll-1728660>.

Englander, Elizabeth, and Meghan K. McCoy. "Analysis: There's a mental health crisis among teen girls. Here are some ways to support them." PBS, February 24, 2023.

<https://www.pbs.org/newshour/health/analysis-theres-a-mental-health-crisis-among-teen-girls-here-are-some-ways-to-support-them>.

"Stress in America 2022." American Psychological Association. Press release. October 2022. <https://www.apa.org/news/press/releases/stress/2022/concerned-future-inflation>.

Mental/Emotional

- Gut health plays a role
 - Metabolic psychiatry
 - Nutrition
 - Movement
 - Sleep
- Get outside - spend time in nature
- Breath work
- Meditation
- Referrals
 - social worker or psychologist
 - Liber8 - precision emotional healing
- Community involvement - support groups

Modalities/Supplements

- Reduce side effects of conventional therapy
 - Cannabis is a multitasker
 - Probiotics rich foods
 - Medicinal mushrooms (reshi, shiitake, chaga, maitake, and turkey tail - support immune function)
 - DGL powder, Aloe Vera gel
 - Magnesium
 - Melatonin
 - Miracle berry
 - Omega 3
 - Acupuncture/Acupressure - Nausea and vomiting

Enhance Treatment

- Enhance efficacy of treatment
 - Intermittent fasting and fasting mimicking with some patients can help decrease side effects of chemo
 - Ketosis
 - Off label medications
 - Vitamin D

Other Integrative Approaches

- Protect healthy cells
 - Vitamin D supplementation
 - Melatonin
- Create a terrain that is inhospitable to cancer cell growth and spread
- Immune boosting
 - Quercetin
 - Black seed oil
 - Melatonin
- Low Dose Naltrexone
- Mistletoe therapy

Other Integrative Approaches

- Hot Flashes
 - Non-hormonal herbs
 - Cooling pad for sleeping
 - Acupuncture
- Low Energy/Fatigue
 - Vitamin D optimization
 - Gut health
 - Electrolyte replacement
 - Exercise
 - Acupuncture
 - Rhodiola/ Ashwaganda

Other Integrative Approaches

- Vaginal Dryness
 - Non-hormonal vaginal suppositories
 - Coconut oil
 - Elimination of irritants
- Anxiety
 - Vitamin D optimization
 - Gut health
 - Electrolyte replacement - magnesium
 - Exercise
- Acupuncture
 - Chemo induced peripheral neuropathy
 - Sleep
 - Hot flashes
 - Joint pains from AI/Surgical pain

Other Integrative Approaches

- Brain Fog/Chemo brain
 - Magnesium L-threonate
 - Lions Mane supplement
- Weight gain
 - Nutrition evaluation - eating enough protein
 - Gut health
 - Electrolyte replacement
 - Exercise - especially strength training
- Quality of Life
 - Acupuncture
 - Qigong
 - Stress management

Top Survivorship Focus

- Whole person approach
- Nutrition
- Movement
- Sleep
- Stress

- And when at a loss for what to do:
 - focus on the CDC
 - Circadian Rhythm
 - Diet
 - Community

References

- Greenlee H, DuPont-Reyes MJ, Balneaves LG, et al. Clinical practice guidelines on the evidence-based use of integrative therapies during and after breast cancer treatment. *CA Cancer J Clin.* 2017;67(3):194-232. doi:10.3322/caac.21397
- Desai et al, *JACM*, 2021 Nov; 27 (11): 1011-1013. doi: 10.1089/acm.2021.0102
- Geffen, J. R. (2010). Integrative oncology for the whole person: a multidimensional approach to cancer care. *Integr Cancer Ther*, 9(1), 105-121. doi:10.1177/1534735409355172
- Lyman et al. *J Clin Oncol* 36:2647-2655, 2018
- Brauer, J. A., El Sehamy, A., Metz, J. M., & Mao, J. J. (2010). Complementary and alternative medicine and supportive care at leading cancer centers: a systematic analysis of websites. *J Altern Complement Med*, 16(2), 183-186. doi:10.1089/acm.2009.0354
- Luo, Q., & Asher, G. N. (2017). Complementary and Alternative Medicine Use at a Comprehensive Cancer Center. *Integr Cancer Ther*, 16(1), 104-109. doi:10.1177/1534735416643384
- Wischmeyer, P. (2022). The Critical Role of Nutrition and Exercise: Optimization In the Patient with Cancer. *J Adv Pract Oncol* 2022; 13(3):270-274
- Dieli-Conwright et al. *Diabetol Metab Syndr*, (2022), Mar 3; 14 (1): 36
- Diababa et al. *Breast Cancer Res Treat*, 174, 209-218 (2019)
- Garland, C.F., et al. (2009). *Annals of Epidemiology*. 19 (7): 468-483
- Wang et al. *Cancer Chemother Pharmacol*. 2012, May; 69 (5): 1213-20
- Eliza, W., et al. *Recent Pat Inflamm Allergy Drug Discov*. 2012, jan: 6 (1): 78-87
- Wilken, MK, et al. *Clin J Oncol Nurs*, 2012, Oct; 16 (5), E173-7
- Johnson, S., et. al. (2021) Mistletoe and the Emerging Future of Integrative Oncology.
- Di Tano M, Longo VD. A fasting-mimicking diet and vitamin C: turning anti-aging strategies against cancer. *Mol Cell Oncol*. 2020 Jul 29;7(5):1791671. doi: 10.1080/23723556.2020.1791671. PMID: 32944646; PMCID: PMC7469657.