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Inside
this Issue

COLON CANCER IN
YOUNG ADULTS

IVC AND THE RIORDAN
APPROACH TO
ADJUNCTIVE CANCER
CARE: 7 KEY QUESTIONS

CANCER-RELATED
FATIGUE

COLON CANCER IN YOUNG ADULTS



AUTHOR

Dr. Ron Hunninghake, MD

The star of the movie *Black Panther*, Chadwick Boseman, died at age 43 of early-onset colon cancer after a 4-year struggle against the disease. His death has spotlighted the fact that colon cancer has been increasingly affecting younger adults over the past decade.

Why Are Young Adults Getting Colon Cancer?

The third most common cause of cancer diagnosed in men and women in the U.S. is rising. In 2004, newly diagnosed colorectal cancer in people under age 50 was approximately 10%.¹ By 2015, this rate rose to 12.2%.¹ However, the real tragedy is that 50% of these younger patients were diagnosed at later stages of the disease.

Vague Abdominal Symptoms

Colorectal cancer symptoms tend to be very nonspecific. Obvious bowel cancer symptoms include rectal bleeding or a significant change in bowel habits. More subtle symptoms, like mild abdominal pain or cramping, that won't go away can herald early cancer but often goes unnoticed.

Links to Ethnicity and Family History

Colorectal cancer rates also differ by ethnicity, with rates being 20% higher in African Americans than non-Hispanic whites.² The rate of death is also 40% higher in this group.² African American's low vitamin D levels due to darker skin and poor outdoor sun exposure time have been implicated. Family history is another possible link. Almost one-third of colorectal cancers are diagnosed in patients 35 or younger who report similarly afflicted close family members.

Obesity

Metabolic Syndrome is often associated with obesity and diabetes. Altered glucose metabolism may also link obesity to colorectal cancer, with high levels of pro-proliferative insulin and related growth factors promoting tumorigenesis,³ the production or formation of a

>>>>> 7 Tips to Lower Your Colon Cancer Risk



Follow a diet high in fiber that includes lots of vegetables, fruits, and organic whole grains with avoidance of processed and factory-farmed meats.



Limit alcohol to no more than two drinks a day for men and one drink a day for women.



Achieve or maintain a healthy weight through lifestyle changes.



Follow recommended colorectal screening guidelines.



Familiarize yourself with your family medical history.



Make exercise a regular daily routine.



Don't smoke or use tobacco products.



tumor or tumors. Obesity can also induce a chronic inflammatory state because body fat, also known as adipose tissue, secretes inflammatory cytokines (small proteins important in cell signaling). Overactive cytokines can contribute to carcinogenesis, according to Marc Gunter, Ph.D. of the International Agency for Research on Cancer.³ Lower physical activity and more sedentariness, which is increasing in younger adults, are also risk factors for colorectal cancer.

Gut Microbes

Elevated levels of certain gut microbes and low microbial diversity are associated with greater colorectal cancer risk.³ Diet, obesity, and physical activity significantly affect the gut biome. Pathogenic bacteria-derived compounds can leak into the colorectal mucosa, the moist inner lining of some organs and body cavities, and promote the above-noted inflammation.³

The pervasive use of glyphosate (Roundup) on crops and lawns has resulted in widespread contamination of common foods and drinking water.⁴ In addition, glyphosate interferes with the Shikimate Pathway in gut bacteria, further eroding a healthy gut biome.⁵ How changes in the gut microbiome specifically play a role in colorectal cancer remains unclear.

Folic Acid Supplementation

Nationwide fortification of enriched uncooked cereal grains with folic acid began in the United States and Canada in 1996 and 1997, respectively, and became mandatory in 1998. The rationale was to reduce the number of births complicated by neural tube defects. Concurrently, the United States and Canada experienced abrupt reversals of the downward trend in colorectal cancer incidence that the two countries had enjoyed in the preceding decade. In each country, the increase in colorectal cancer incidence from the pre-fortification trend falls significantly outside of the downward linear fit based on nonparametric 95% confidence intervals.⁶ In addition, changes in the rate of colorectal endoscopic procedures do not seem to account for this increase in colorectal cancer incidence.⁶ These observations alone do not prove causality but are consistent with the known effects of folate on existing neoplasms, as shown in both preclinical and clinical studies.⁶ Common folic acid fortified foods include processed, boxed cereals and low fiber white bread.

Screening and Early Warning Signs

Colorectal Screening Guidelines

The American Cancer Society recommends that adults at average risk for colorectal cancer begin screening at age 45. People at higher risk may need to start screenings earlier or have them done more often. This type of cancer has over a 90% 5-year survival rate if found early.⁷ However, that rate drops to about 14% once it spreads to other organs.⁷

Early Warning Signs

See a doctor if you notice any warning signs, including changes in bowel patterns, straining or discomfort with bowel movements, rectal bleeding, or feeling full or bloated. Also, have a complete blood count blood test to check if anemia has developed, making the rectal bleeding a sign of possible disease.

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MISTLETOE THERAPY

Did you know that the liquid extract of the Mistletoe plant has been used as an alternative method to treat cancer for close to a century?¹

Did you know that Mistletoe is one of the most widely studied and evidence-based, naturopathic medicines prescribed for cancer patients in Europe?²

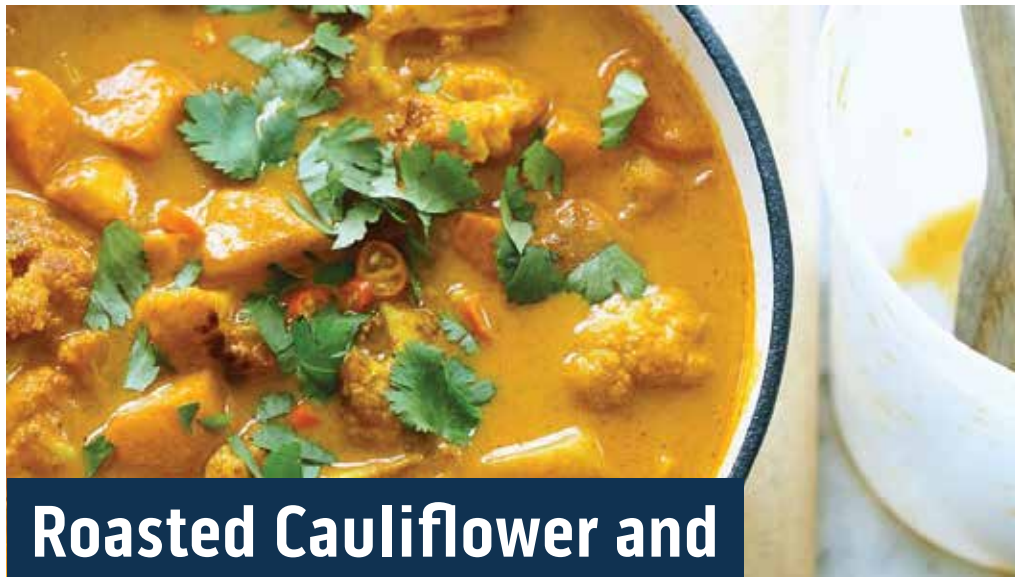
Did you know that numerous studies have shown Mistletoe Therapy may enhance cancer patient survival rates,³ improve quality of life,⁴ and reduce the side-effects of chemotherapy and radiation?⁴

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Hover your phone camera over the QR code to find more information about Mistletoe Therapy.





Roasted Cauliflower and Potato Curry Soup

INGREDIENTS

2 tsp ground coriander
 2 tsp ground cumin
 1 ½ tsp ground cinnamon
 1 ½ tsp ground turmeric
 1 ¼ tsp salt
 ¾ tsp ground pepper
 ⅛ tsp cayenne pepper
 1 small head cauliflower, cut into small florets (about 6 cups)
 2 Tbsp extra-virgin olive oil, divided
 1 large onion, chopped
 1 cup diced carrot
 3 large cloves garlic, minced
 1 ½ tsp grated fresh ginger
 1 fresh red chile pepper, such as serrano or jalapeño, minced, plus more for garnish
 1 (14 ounce) can no-salt-added tomato sauce
 4 cups low-sodium vegetable broth
 3 cups diced peeled russet potatoes (1/2-in)
 2 tsp lime zest
 2 Tbsp lime juice
 1 (14 oz) can coconut milk
 Chopped fresh cilantro for garnish

COOKING INSTRUCTIONS

1. Preheat the oven to 450 degrees F.
2. Combine coriander, cumin, cinnamon, turmeric, salt, pepper, and cayenne in a small bowl. Toss cauliflower with 1 Tbsp oil in a large bowl, sprinkle with 1 Tbsp of the spice mixture and toss again. Spread in a single layer on a rimmed baking sheet. Roast the cauliflower until the edges are browned, 15 to 20 minutes. Set aside.
3. Meanwhile, heat the remaining 1 Tbsp oil in a large pot over medium-high heat. Add onion and carrot and cook, stirring often, until starting to brown, 3 to 4 minutes. Reduce heat to medium and continue cooking, stirring often, until the onion is soft, 3 to 4 minutes. Add garlic, ginger, chile, and the remaining spice mixture. Cook, stirring, for 1 minute more.
4. Stir in tomato sauce, scraping up any browned bits, and simmer for 1 minute. Add broth, potatoes, sweet potatoes, lime zest, and juice. Cover and bring to a boil over high heat. Reduce heat to maintain a gentle simmer and cook, partially covered and stirring occasionally, until the vegetables are tender, 35 to 40 minutes.
5. Stir in coconut milk and the roasted cauliflower. Return to a simmer to heat through. Serve garnished with cilantro and chiles, if desired.

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Kimberly Romig
 Editor

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IVC AND THE RIORDAN APPROACH TO ADJUNCTIVE CANCER CARE: 7 KEY QUESTIONS



AUTHOR

Riordan Clinic Provider Team

IVC and the Riordan Approach to Adjunctive Cancer Care: 7 Key Questions has been reviewed and updated from the original Health Hunters article Vol. 31 No. 10 in October 2017.



Q1. What is IVC, and how does it benefit cancer patients?

Intravenous Vitamin C, also referred to as IVC, is an adjunctive cancer therapy widely used in naturopathic and integrative oncology settings. Two decades of groundbreaking research on IVC therapy at the Riordan Clinic have resulted in the Riordan IVC Protocol for Adjunctive Cancer Care.

While the focus of this protocol is IVC, Dr. Hugh Riordan emphasized the importance of providing comprehensive wellness care for the cancer patient in conjunction with IVC therapy.

Q2. What are the proven benefits of IVC therapy in the care of cancer patients?

During this intravenous treatment, high doses of buffered ascorbic acid enter your body through a small tube inserted into a vein in your arm or through a port. This results in blood levels of vitamin C that reach 300-400 times the levels achievable by oral intake alone. The cancer patient can benefit from IVC therapy in several ways:

1. Because cancer patients are often depleted in vitamin C, the IVC provides a rapid means of restoring tissue reserves.¹
2. IVC improves the quality of life in cancer patients by a variety of metrics, as documented in published studies.¹
3. IVC reduces inflammation as measured by C-reactive protein levels.¹
4. IVC is preferentially toxic to tumor cells but not to normal cells.¹
5. IVC inhibits the growth factor that promotes new blood vessels to grow towards the tumor.¹
6. IVC reduces the production of pro-inflammatory cytokines, which down-regulates the "micro-inflammatory cellular environment" of cancer cells.²

Q3. Is IVC a vitamin or a drug?

IVC shifts ascorbate from a simple anti-scurvy vitamin to a surprisingly beneficial pro-oxidant with powerful pharmaceutical actions. Pharmaceutical IVC doses have shown significant anticancer effects in animal models and tissue culture studies.³ This well-studied effect has been described as the "selective cytotoxicity effect of high dose ascorbate on tumor cells."⁴ Numerous research institutions have replicated this effect over the last several decades. However, only recently has research on sepsis brought this effect to the attention of conventional medicine.

Q4. Is IVC "a natural Chemotherapy?"

Although the literature and clinical studies suggest that IVC has a good safety profile and important anti-tumor activity,⁵ it is nevertheless not considered a "stand-alone" chemotherapy agent. Instead, IVC is best utilized as one component of a multi-faceted, adjunctive care approach that would best include dietary, nutritional, and lifestyle changes that support overall wellness in the cancer patient. When used in this wellness context, IVC acts as an ideal adjunctive therapy that can:

1. Reduce chemotherapy side effects⁶
2. Improve survival time⁶
3. Enhance the quality of life⁶ for the cancer patients receiving it once or twice weekly as part of an overall lifestyle program of care

Q5. Can IVC be used in conjunction with traditional oncology?

Published studies have shown that IVC therapy can be used in parallel with traditional cancer treatments, such as surgery and chemotherapy, without interfering with their effectiveness.⁶ Most, but not all, patients choose to enlist a standard of care team including their oncologist and an integrative oncology team to provide the best of both modalities for superior outcomes.

Q6. What are the "basics" of the Riordan IVC Protocol?

The Riordan IVC Protocol for Adjunctive Cancer Care is an integrative program that favors optimal treatment for both the cancer disease and the wellness care of the patient who has a cancer diagnosis.

The decision to start IVC is made by Riordan Medical Providers after careful review of the patient's medical history, in conjunction with comprehensive lab testing. Treatment is to be continuous with infusions of IVC two times per week, on average. Regular treatments with IVC, without lapses in treatment, have been shown by our studies to increase the overall effectiveness of the IVC in the suppression of tumor growth.

The Multi-C Oral Vitamin C Protocol is advised 2-3 times daily, especially on non-IVC days, as an important but often neglected part of the effective implementation of the Riordan Protocol. The Multi-C Protocol includes oral liposomal C, sodium ascorbate, and ascorbyl

palmitate to maintain high serum, extracellular, and intracellular levels of vitamin C between intravenous infusions.

Infusion time and financial requirements need to be carefully assessed prior to beginning IVC treatment to determine whether the patient can sustain the benefits of the complete protocol. IVC is typically continued until there is an improvement of patient conditions (stabilization of patient tumor or no detection of cancer for a 12-month period of time). At such a point, treatment frequency is gradually tapered while maintaining the Multi-C Oral Protocol.

Therapeutic IVC Dosage Testing

- High doses of intravenous Vitamin C are titrated up to a therapeutic dose as outlined in the Riordan IVC Protocol, which is now a standard of integrative cancer care worldwide.
- Starting with a low, safe dose of 15 grams, the patient's resulting blood level is assessed to find out what level of blood saturation is achieved at this dose.
- This starting dose is escalated each subsequent day (25 grams, 50 grams, 75 grams, and occasionally 100 grams in very heavy patients) until a target dose of near 400 mg/dl is achieved.
- Riordan uses two methods to assess post-IVC saturation levels:
 1. Serum ascorbate testing at the Bio-Center Laboratory.
 2. Fingerstick testing using a glucometer (if serum testing is not readily available.*

**Note: the Vitamin C molecule is similar in shape and structure to the glucose molecule, and studies have utilized glucometer readings to correlate with the therapeutic levels of IVC in the bloodstream.*

- Each patient's unique blood findings are used to determine their therapeutic IVC dose.

Q7. What are the "adjunctive" components of the Riordan IVC Protocol for Adjunctive Cancer Care?

Following Dr. Hugh Riordan's death in 2005, the Riordan approach to the care of cancer patients was formulated by way of 7 key verbs in 7 precepts:

1. Create Co-learner Relationships

Cancer patients co-learn best in partnership with their Riordan Clinic Doctors and medical team.

2. Identify the Causes

The Real Health Discovery Laboratory Profile is utilized to search for and address 17 common underlying causes that perpetuate conditions that have been shown to give rise to cancer. Correcting these factors can help the body's healing system slow and possibly eliminate cancer growth.

3. Characterize Biochemical Individuality

The Real Health Discovery Laboratory Profile analyzes vitamins, minerals, amino acids, fatty acids, hormones, food reactions, inflammation markers, and additional biochemical indicators which can serve as:

- A baseline of your current health status
- An inventory of correctable health factors
- A source of valuable clues that point to correctable carcinogenic factors

4. Care for the Whole Person

Cancer is a disease that occurs in the real life of a human being. The complex life histories, traumas, stressors, toxic exposures, dietary indiscretions, medication side effects, spiritual crises, poor lifestyle habits, sleep disorders, physical, emotional, psychological, financial, marital and many other health challenges – all of these may be playing into the grueling challenges of a cancer care plan.



The Riordan Approach is not a simple solution for this complex array of lifestyle issues. It is an acknowledgment that an adjunctive cancer care assessment is more than just infusing vitamin C into the vein of that human being.

5. Choose Food as Medicine

Although there is no single diet that is widely acknowledged as effective in cancer patient care, the importance of making healthy food choices is paramount for good cancer outcomes.

Food issues that need to be addressed include food wholeness, safety, quality, hidden inflammatory lectins, mold toxins, GMO issues, and effects of food on the gut biome, phytonutrient factors, glycemic issues, ketogenic programs, and the appropriateness of other controversial cancer diet plans.

6. Cultivate Healthy Reserves

The Riordan Approach, like gardening, takes time and is the result of continuous effort and ongoing co-learning. Healthy reserves include nutrients, habits, social networks, spiritual resources, and a strong self-concept.

The Real Health Discovery Laboratory Profile is a valuable key and starting point for identifying deficiency states that can be corrected as an integral part of building whole-life reserves.

7. Discover the Healing Power of Nature

An old Latin proverb says: "Medicus curat, natura sanat," which means the doctor cares [for the patient], nature heals [the patient]. The Riordan Approach integrates the ancient wisdom of natural healing techniques with modern medical science.

To learn more: The updated Riordan IVC Protocol for Adjunctive Cancer Care and our cancer research articles relating to IVC and cancer are helpful to read and share with your medical support team. These can be found on our website at riordanclinic.org.

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CANCER-RELATED FATIGUE

Cancer-Related Fatigue has been reviewed and updated from the original Health Hunters article Vol. 33 No. 8 in August 2019.



AUTHOR

Lucas Tims, ND, FABNO



Fatigue is a common problem in cancer patients, both among those undergoing active treatment and survivors. Some reports show that as many as 90% of cancer patients struggle with fatigue at some point in their journey and a prevalence of up to 45% in cancer survivors. The fatigue that comes with cancer, called cancer-related fatigue (CRF), is different from the fatigue of daily life. CRF disrupts all aspects of quality of life and may be a risk factor for reduced survival.¹

By definition, CRF is a distressing, persistent, subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning. More and more, Cancer Centers are relying on integrative medicine practitioners to help manage this complex condition with complementary and alternative (CAM) therapies², as these have been shown to be the most promising interventions available at this time.

What Causes CRF?

While the causes of CRF are not fully understood, it is generally thought to be a multifactorial condition and component of a symptom complex which may include depression, anxiety, and sleep disorders.

With CRF, sometimes there are measurable factors involved, such as anemia, nutritional deficiencies, or hormonal imbalances. However, there are intangibles that may contribute to CRF, such as pain, stress, poor sleep patterns, deconditioning, and medication side effects. On top of all that, there is fatigue that can be caused by cancer itself and cancer treatments such as surgery, chemotherapy, and radiation.

Given the complexity of the problem and the lack of objective measurement of what is primarily a subjective symptom, interventional trials have been somewhat limited.

What Can be Done?

Despite the lack of a universal objective measurement for CRF, research into effective interventions has continued to build and better inform clinicians on mitigating this highly prevalent condition. Several evidence-based therapies have been identified to help improve CRF potentially. Let's take a look at some of these:

Ginseng

This traditional Chinese Medicine herb has long been used as a natural energy booster. In a large study led by Mayo Clinic, high doses of the American ginseng (*Panax quinquefolius*) given over two months effectively reduced CRF.³ Ginseng's improvement of fatigue is likely due to its known mechanisms of decreasing inflammation and regulating cortisol levels.

IV Vitamin C

A 2018 review of several human trials concluded that intravenous ascorbic acid (vitamin C) up to 25g can improve several quality of life measures, including CRF.⁴ Of note, most of these trials have shown this effect in patients undergoing concomitant chemotherapy treatments.

Mistletoe

European mistletoe (*Viscum album*) extracts have an extensive history of use and clinical evidence as a safe and effective adjunctive cancer treatment to help with the quality of life measures, including CRF. Although it is used across all tumor types, gynecologic and breast cancer patients have shown particular improvement in fatigue with mistletoe use.⁵

Acupuncture

More established as a tool to treat pain and nausea in cancer patients, recent studies have also shown this versatile modality to be quite beneficial for CRF.⁶

Exercise

Aerobic exercise, with its myriad health benefits, has been clearly shown to improve CRF, particularly in survivors. The American Cancer Society recommends that adult cancer survivors get at least 150 minutes of moderate-intensity or 75 minutes of vigorous activity each week (or a combination of the two).⁷ This intervention not only helps with CRF but also reduces cancer recurrence.

Sleep

The majority of studies that have assessed both sleep and fatigue in patients with cancer provide evidence supporting a strong correlation between CRF and various sleep parameters.⁸ It's clear that the quality and duration of sleep, or lack thereof, reciprocate with CRF. Improving sleep hygiene is crucial and oftentimes the first place to start. Beyond that, a trial of a natural sleep aid, such as melatonin, may be enough to tip the scales in favor of improved sleep.

Tai Chi

The traditional Chinese health-promoting exercise, often done in groups, has been shown to have many positive effects in cancer patients. A meta-analysis investigating the effectiveness of Tai Chi on CRF concluded that the practice leads to short-term ameliorative effects that are actually superior to rigorous physical exercise and psychological support.⁹ The best results were shown in patients with breast and lung cancers.

Summary

CRF is one of the most distressing cancer-related symptoms and requires a clinician or team of clinicians to look at many underlying causes and interrelated conditions. Cancer patients would benefit

greatly by working with an integrative practitioner. As the understanding of cancer and its treatments evolves rapidly, so will our knowledge of CRF and how to best manage it.



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ONCOLOGY PROFILE

Laboratory testing is essential to the process of determining and monitoring various cancer markers, detecting nutrient deficiencies, screening for other major health issues, and finding gaps that can be addressed to optimize overall health as well as work on the cancer diagnosis itself.

The Riordan Clinic's medical team has designed a lab profile that is specific to those with an active cancer diagnosis. Our doctors use the results of this lab testing as a vital tool in discovering the root cause of your health concerns, making decisions on treatment care and protocols, and monitoring progress along the way. Because laboratory testing requires fasting, we will have you meet with one of our experienced phlebotomists as your first step in the day's schedule. Although the Oncology Profile provides a comprehensive baseline, additional testing may be recommended that is specific to your type or stage of cancer as well as other factors unique to your situation. These recommendations will be fully explained to you by your doctor during your appointment(s) and you will have the opportunity to decide together how to proceed.



Hover your phone camera over the QR code to find more information about the Oncology Profile.



PATIENT STORIES

To Have Energy is Wonderful

"I would recommend this clinic to everyone. I have been there for a weekly visit for eight weeks & life is so worth living again. To have energy is wonderful." - Pam

What's Wrong With Me?

"I found the Riordan Clinic in Wichita, KS when I googled 'where to go when no one can figure out what's wrong with you.' I took my income tax return that year and went for treatment. Best money I ever spent! 3 cancers later, I'm here to tell the tale!

Riordan Clinic is recognized worldwide for practicing 21st-century medicine. They now have a 3rd site in Kansas City." - Sharon

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The Latest Information and Top Experts in Functional and Integrative Medicine

LATEST EPISODES



EPISODE 29 ANTI-AGING

Mike Shaw, PA-C, ABAHP

In this episode, Mike Shaw and Dr. Ron discuss anti-aging and the community that started the anti-aging movement. Do you know your physiological age? Mike and Dr. Ron distinguish the difference between one's chronological age and physiological age. Mike discusses what steps you can take to measure and match your PhysioAge to your actual age.



EPISODE 28 STORY OF AN INTEGRATIVE NURSE

Annette Chlumsky, RN

Annette Chlumsky has been an Integrative Nurse for over 30 years and a Nurse with the Riordan Clinic for 7.5 years. In this episode, Dr. Ron talks with Annette about her experience as an Integrative Nurse and why she chose the Integrative approach. Annette and Dr. Ron also discuss the many roles Nurses play in a patients' healing journey and why the Nurses at Riordan Clinic are trained as co-learners and not just healthcare professionals.

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