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Get Excited: Big Things Are in Store for TTAC in 2018!

By Ty Bollinger

As many of you are probably well aware, the past couple of years have been amazing here at The Truth About Cancer. The rapid growth and viral sharing of our message has saved hundreds of thousands of lives (maybe even millions).

As we kick off a brand new year, I'd like to share some highlights of what WE collectively – the TTAC team and the entire TTAC community (which includes you!) – have been able to accomplish since TTAC's inception only four years ago.

Plus we'll take a look ahead at where we're aiming to go in 2018 and beyond.

Education Is a Powerful tool for “Waking Up” the Public

When I first set out on this life mission to uncover the truth about cancer, I had no idea just how big of an endeavor I was undertaking. I also had no idea I'd eventually become something of an anti-cancer icon leading the charge to educate the public about this dreaded disease. This was a role that I was unknowingly thrust into and that quickly morphed into a full-time calling, for which there was no turning back.

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Message From Ty Bollinger



It seems like it was only a few months ago that I was writing the January 2017 message, and here we are... a whole year has gone by in what seems like the blink of an eye.

A new year is always a great time for reflection and for looking ahead at where you want to go. In this edition of the Heroes Against Cancer newsletter, I wanted to share with you more about what TTAC's journey has been so far and where we want to go. Believe it or not, TTAC as a company is just shy of four years old.

When I think back to meeting my business partner, Jonathan Hunsaker, in February 2014, we (Charlene & I) had no idea the impact this meeting would have on our lives. As Charlene likes to say, it was God's grace that brought Jon to us. And it's that grace that continues to draw the most incredible team of people to us, for which we are eternally thankful.

We are eternally grateful for you too, and the support and love which you continue to show us. That's not to say we don't have our detractors, who would love nothing more than to see us stop spreading our message of truth. But more about all that in the newsletter.

This month we're also trying out an "Ask the Expert" column. This may or may not become a regular feature depending on what you want to know. If you have a specific question that you think would benefit many readers, please send a message to our Customer Success team at: support@thetruthaboutcancer.com and indicate it's a question for the HAC newsletter.

Last but not least, Dr. David Jockers has expanded on the popular Sugar-Cancer Connection talk he gave at TTAC LIVE in October. There's some science to wade through at the beginning, but be sure to keep reading as he gets into the practical health tips that will help keep you vibrant and cancer-free in 2018.

Wishing you and your family an incredibly happy and healthy 2018!


Ty Bollinger

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It's been a lot of blood, sweat, and tears ever since, but a path in life that I wouldn't trade for the world because I'm literally seeing the fruits of my labor ripen into a mass awakening. I'm simply astounded by the sheer number of people from all walks of life who are finally coming to the realization that so much of what they're being told about cancer by mainstream voices is a lie.

This isn't an easy pill to swallow for many people because, in many ways, it shatters the preconceived delusions about cancer that many of us (myself included), were programmed into believing basically from birth. I know that I was shocked when I first learned the truth about cancer following the deaths of my parents. I remember my immediate thought was: I've got to tell as many people as I can what I know so they don't have to suffer in the same way my parents (and I, after their passing) did.

Another thing I never could have envisioned was the unprecedented popularity of the message that cancer can be both avoided and cured. I mean, it makes perfect sense that it would resonate with people. But this explosion of interest in the subject really hit me like a ton of bricks, immediately sending me down a path that I like to describe as a medical mining expedition. I've been on this expedition for many years now, and all along the way I've been unearthing buried "treasures" about cancer that, quite frankly, the medical establishment has been withholding from the public.

Because I really didn't know what I was doing at the time, my initial approach was simply to relay all of the information I was learning about cancer using a "shot-gun" approach. This meant I blasted it all out there, no holds barred, to whoever might listen in the hopes that it might do someone some good. By the grace of God I was introduced to my partner Jonathan Hunsaker in early 2014 who is a genius at getting information out

into the world. By joining forces our message of hope has now reached the ends of the earth and touched the lives of literally millions of people.

I firmly believe that every single person is fully capable of learning what it means to take ownership of his or her own health. What I mean by this is that, instead of having to always rely on medical doctors for answers (because a lot of what's helping people overcome cancer isn't found in the medical textbooks), everyday people like you and I have the freedom to take responsibility for our health without relegating it to a third party. But doing so requires knowledge and understanding – two things that we here at The Truth About Cancer are dedicated to providing.



Attendees ready for Day 1 of The Truth About Cancer LIVE event in Orlando, Florida, Oct 5th-7th, 2017

In Order to Continue Fighting the Cancer “Machine,” We Must Keep Exposing it

Part of this process also involves continually drawing people's attention to all of the lies and misinformation about cancer that are prolific in our society. For instance, many people think about cancer like a roulette wheel. They believe that those who get it are among the "unlucky" ones whose fateful number came up in the random pick of the draw. Others think that cancer is the result of "faulty genes." Both of these scenarios are ones in which the individual has no control whatsoever over whether or not cancer strikes.

This faulty thought paradigm leaves the average person completely powerless to take control of his or her own health, which is exactly what the cancer industry wants. People who know nothing about how to prevent cancer certainly won't know how to treat it. When their doctor announces they have cancer, most of them jump right away into chemotherapy, radiation, or surgery – never realizing (or being told) that there are other options. A significant portion of our work involves lifting the veil and explaining to people why the system operates the way that it does, and what they can do to counteract it.

vanced”) remedies because these threaten the massive profits garnered through chemotherapy, radiation, and surgery.

The cancer industry is a multi-billion dollar enterprise that thrives due to fear and suppression of the truth. Our approach, on the other hand, is quite the opposite, as we seek to build trust through the spreading of truth. You could suffice it to say that almost everything we do here at The Truth About Cancer goes against the official cancer narrative, challenging the status quo and rendering it obsolete. What we do is about saving lives and empowering people, while the cancer industry at large is about scaring people into undergoing expensive treatments that, in many cases, don't work and actually cause more harm.

It's a highly rewarding lot in life having the opportunity to challenge these societal norms and let people know they have options, even when seemingly everyone else is telling them there's only one way. But it also feels like an uphill battle a lot of the time, especially because the cancer industry is immensely powerful. They have the deep pockets to be able to funnel what seems like an endless supply of money and resources into conveying their toxic message to the masses. The cancer industry is akin to Goliath, and we're just the lowly little David with a sling and a few stones – but the good news is we all know how that story ends.



Jon Hunsaker, TeriAnn Trevenen, Ty & Charlene Bollinger presenting checks totaling \$100,000 to 7 different charities on behalf of TTAC & TTAV

What we want people to know, first and foremost, is that cancer doesn't have to be a death sentence, and that there are a variety of options for treating it beyond what's offered at a standard oncology clinic. This is a two-step process that involves empowering people through education, as well as exposing the truths about the cancer industry that aren't being reported in the mainstream news. Conventional cancer treatments are big business, we often tell people, and the “big boys” are threatened by “alternative” (or as we like to say, “ad-

And this is precisely why I'm confident that we're on the winning side. I truly believe in the work that my team and I do on a daily basis because I've seen so many lives changed from it. In contrast to patented medicine's systems of control and enslavement, the approach we take is centered around freedom and empowerment. These are two concepts that all of the financial resources, power, and influence in the world can never overcome. But it's a fight that we must continue to engage in together if we're going to continue making headway.

Our Most Important Goal of All: To Completely Eradicate Cancer from the Face of the Planet

What it all boils down to in the end is this: are we as a society ready to take that giant leap of faith together to finally make cancer a thing of the past? I believe it can happen, but only if we dramatically change course and stop listening to the voices of deception that are constantly trying to lead us down the path of destruction and death when it comes to how we approach cancer.

The Truth About Cancer exists to spread an opposing message of healing that inspires hope. Our desire is to ignite the flames of determination in the hearts of people everywhere to seize control of their own health through awareness, understanding, and action. It's a positive message that encourages people who've been diagnosed with cancer to look at themselves not as victims, but as unique individuals who face a special challenge in life. It's a challenge that we believe wholeheartedly can be overcome by utilizing the information we publish here on a regular basis.

It all starts with you!

I know I speak for myself and everyone on my team when I say that I wouldn't even be writing this right now if it weren't for you. The fact that you're even reading the Heroes Against Cancer newsletter means you probably know a thing or two about all that I've covered above. This puts you in the unique position of being a cancer truth advocate to your friends and family, helping to spread the word about all that we do here in order to further our mission of putting an end to cancer.

Whether you've personally been diagnosed with cancer, know someone else who has, or just enjoy learning about it for your own enrichment, the knowledge you're obtaining here is invaluable and worth spreading to other people. Especially as we enter a new year, consid-

er the fact that what you know about cancer might just be the greatest gift that you, a friend, or a family member will ever receive – but only if you take the time to actually share it with them.

I can't do this alone.

We can't do this alone.

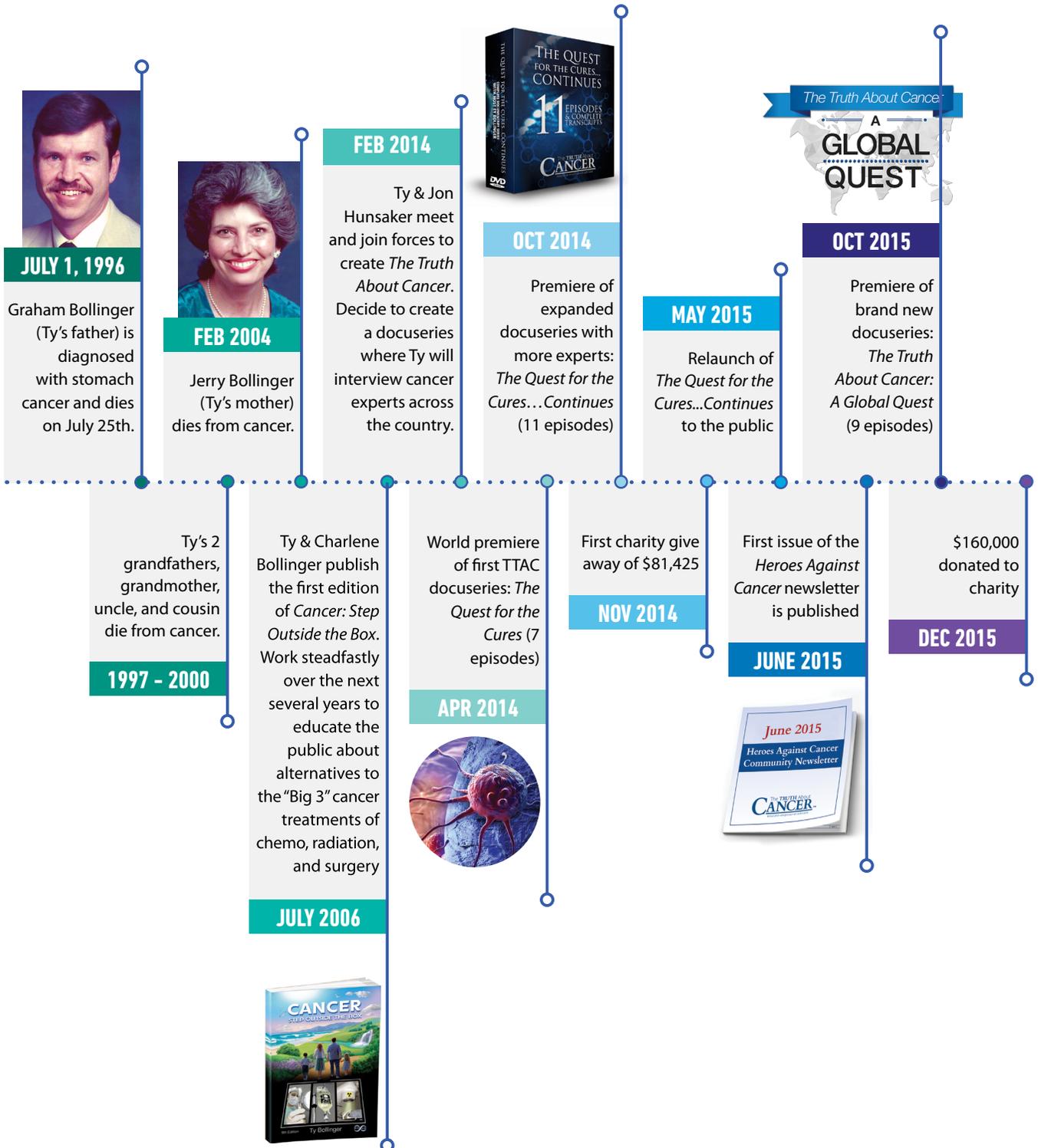
The cancer industry is determined to maintain the status quo at all costs, and it has a lot of power, influence, and money to make that happen... if we let them. We might be small in comparison to this beast, but you and I are fighting a good fight, and I believe that this counts for something. We've got the truth on our side, which in the end is far more powerful than even the most well-funded lies.



L-R: TTAC CEO TeriAnn Trevenen,
Jon Hunsaker, Ty & Charlene Bollinger

So I'm asking you: are you with me?

I want 2018 to be the year that we finally reach critical mass in spreading the message that cancer can be cured – but not within the current paradigm. People need to know that the cancer industry's business model is centered around not finding a cure because cures kill profits. But people also need to know that there's a whole other world of solutions that exists "outside the box," if they'll only take a leap of faith to discover it.



You and I have already discovered this other world, and for this I'm immensely grateful. We've together embarked on a journey towards better health that's allowing us to enjoy immeasurable benefits as kindred spirits, which is truly a priceless gift. And I'm here to tell you that there are millions of other people out there who are eager to join us. They just don't know it yet.

For many, it's because they simply haven't had the opportunity to hear the message. For others, it's because they haven't heard the message clearly enough that it actually takes root. Regardless, you and I have the unique opportunity to bring clarity and vision to everyone we encounter so that they, too, can partake in the tangible benefits of a cancer-free existence. I mean, who wouldn't want this? You simply can't put a price tag on vibrant health, and that's the essence of what we here at The Truth About Cancer want for everyone.

We've accomplished a whole lot over the past several years in spreading the truth about cancer to people in need, which is both exciting and humbling. And yet at the same time, we've really only just begun to scratch the surface in getting the best information to the right folks at just the right time. So, as we move forward into 2018, the next phase of our mission will be to begin the process of honing down the incredible wealth of information and knowledge that we've acquired into more digestible "nuggets," if you will, that people on every anti-cancer path can utilize for optimum benefit.

Put simply, our goal in 2018 is to make The Truth About Cancer the number-one source of answers for every question you might have about cancer, and I'm excited about all that we have in store to help make this a reality.

About Ty Bollinger



After losing several family members to cancer (including his mother and father), Ty Bollinger refused to accept the notion that chemotherapy, radiation, and surgery were the most effective treatments available

for cancer patients. He began a quest to learn all he possibly could about alternative cancer treatments and the medical industry.

Ty has now made it his life's mission to share the most remarkable discovery he made on his quest: the vast majority of all diseases (including cancer) can be easily prevented and even cured without drugs or surgery.

Ty is a happily married husband, the father of four wonderful children, devoted Christian, best-selling author, medical researcher, talk radio host, health freedom advocate, former competitive body-builder, and also a certified public accountant.



Ask the Expert: How to Finance Your “Outside-the-Box” Cancer Treatment

With Marcus Ellis

Editor’s Note: Several months ago we published an article on The Truth About Cancer website on the subject of viatical settlements. This is a little-known way to fund alternative cancer treatments that insurance usually won’t cover. The author of that article, Marcus Ellis, was an attendee at the TTAC Live Event in October, and ended up spending several hours answering questions from other attendees about what viatical settlements are and how they work.

Because so many people forego desired treatments due to finances, we asked Marcus to answer the top ques-

tions people have. (For more information, you can read the TTAC article here: <https://thetruthaboutcancer.com/viatical-settlement/>)

Q: Can you really sell your life insurance policy NOW – while you are still living – for funding your treatments?

A: Absolutely! This is astonishing and almost completely unknown to most people and many financial advisors today. For many individuals facing terminal illness, a “Viatical Settlement” (the Latin root means “funds for the journey”) – is a brilliant financial solution.

As a terminal cancer conqueror myself, I am deeply concerned with supplying the financial muscle for others who are looking for what Ty Bollinger calls “outside-the-box” treatment answers or even integrative treatments. Naturopathic treatments are powerful and effective. I speak from experience – after the failure of orthodox cancer treatments, I was completely healed by natural means from Stage IV, going to terminal, cancer.

Today, natural (mis-named “alternative”) treatment protocols are rarely covered by health insurance plans. Most plans only pay benefits for “conventional” or allopathic treatments (e.g. symptom-suppressive chemotherapy, radiation and drugs, etc.), while specifically denying any funding for biological-based, highly effective treatments which have abounded for centuries.

The natural programs are far less expensive than orthodoxy (in my case an astonishing 93% less) but since they are not covered by insurance, many natural plans are quickly discarded by Americans simply for the out-of-pocket costs. This not a well-advised strategy.

Here’s a radical game-changing option...

You can sell your life insurance policy today and have immediate access to funds to pay for any treatment plans of your choosing within hours or days. These Viatical Settlements have excellent characteristics:

» A life insurance policy is considered personal property, which means it can be sold just like any other asset. [See Grigsby v. Russell, U.S. Supreme Court ruling, 1911, majority opinion by Justice Oliver Wendell Holmes.]

» All types of policies are considered acceptable, including term, universal, group, FEGLI, whole life and more.

» Upon closing a sale, the former policy holder becomes completely indemnified from any further payments and no legal issues remain to them.

» This can be a tax-free event depending on individual underwriting and confirmation from your tax advisor. It is up to 80% of the face value of the policy. (This means on a typical \$250,000 policy, the holder could expect up to \$200,000.) It is good news to be able to put your hands on this amount of financing for the battle. These funds would be yours to spend in any way you see fit. Clients have used them for paying off mortgages, taking medical or all-family vacations, and still giving the remainder at any point to their loved ones.

» There are brokers and there are direct licensed providers, also known as direct purchasers, for these transactions. Brokers frequently take higher percentages for their commissions from the sale, which means you should not be expecting as much in the end. Direct providers cut out the middle man, so to speak, and this industry is now highly regulated with providers I have found using pristine ethical practices.

» An agile provider who has developed state-of-the-art turnaround processing can produce an immediate tentative offer. A down payment can be forwarded to your bank account in that first few days for individuals who qualify. The balance of the funding most frequently arrives within 10 days. You can make your first medical trips or take immediate action since cancer, and other life threatening diseases for that matter, are time-critical. No delays. Streamlined. Seamless.

It has been said that it is virtually “impossible to fight the disease while fighting the medical bills.” This is absolutely true. As noted by CNBC, a recent study found that “the

lack of financial resources for medical bills is the leading cause of personal bankruptcies in the United States." I concur.

Instead of lapsing your policies, or selling your home or personal belongings, I advise you to consider selling your life insurance policy. These have actually become "treasures of darkness and hidden riches of secret places" for many Americans and they are part and parcel of the "outside-the-box" thinking which is saving lives all across our country.

Q. How long does a Life Settlement or Viatical Settlement take?

A. The industry standard is 45-60 days, although there is one company whom I have found – Abacus Settlements (abacussettlements.com) that offers those suffering from cancer a turnaround time as quickly as one week. When you need life-saving treatment, you need it now; not a month from now, and certainly not two months from now.

After an initial phone medical interview, a tentative offer is given. If the offer is accepted they move forward with medical underwriting and reaching out to your insurance company. One week later, so long as no major roadblocks present themselves, they are able to wire the money to you directly. Abacus also offers a settlement advance program for individuals that qualify.

The three major factors involved in determining the value of your life insurance settlement are age, health, and premium amount. After a 15-minute phone medical interview this provider can determine how much value you should expect from your policy. For those suffering from cancer these offers can be as high as 80% of your policy face value.

I will mention that this is most frequently a total family decision which can take a bit of effort for everyone to think through. However, when the possibility of having abundant financial resources available to save or extend the life of a loved one is given, most all other matters become moot. So the length of time then to close a policy transaction is critical to the lives of the policy holder and their families. Streamlined, seamless procedures become vital. In this case, TIME is LIFE.

About Marcus Ellis



Marcus Ellis is a businessman of varying pursuits with a career spanning the country. He has worked as a medical researcher, national cancer coach, former public and private school teacher, nationally ranked salesman

and deliverer of professional development to school systems, real estate broker, insurance agent and an armed security officer.

A classically trained musician, composer, pianist, vocalist, conductor and performer, today you will find him enthusiastically continuing to compose and share the music of the scriptural Psalms, Kings and Prophets.

As an advocate of natural health matters, Marcus shares his experiences with groups of all sizes, and is committed to obtaining financing for victims of disease. Marcus can be reached through abacussettlements.com, via email at marcusellis74@gmail.com, or at 931-722-4949.

Charlene's Cancer-Fighting Kitchen



Detoxifying Cauliflower, Kale & Pine Nut Confetti



Humble cauliflower is often overlooked as a leading member of the cruciferous family, but it's actually one of the healthiest foods on the planet. It boasts a rich supply of health-promoting phytochemicals, anti-inflammatory compounds, and other cancer-busting nutrients.

Importantly, cauliflower supports digestion and detoxification. This is due to its sulfur-containing compounds, known as glucosinolates. These compounds break down in your stomach into byproducts during digestion, supporting efficient nutrient absorption as well as toxin and waste removal.

This delicious side or main dish also features kale, another superstar cruciferous veggie that provides glucosinolate compounds in addition to vitamins A, C, K, anti-inflammatory omega-3 fatty acids, and calcium. Like cauliflower, kale is filled with fiber and sulfur, both great for detoxifying your body and keeping your liver healthy.

Pine nuts help suppress appetite as they contain pinolenic acid, which triggers the release of appetite-suppressing hormones. Pine nuts are high in protein; just ¼ cup provides 8 grams of protein.

Yield: Serves 2 as a main dish or 4 as a side dish
Preparation Time: 20 minutes

Ingredients:

- 1 tablespoon grass-fed butter
- 1 tablespoon coconut oil (or more if desired)
- 1 cup chopped shallots
- 1 medium cauliflower, chopped small by hand or in a food processor (pieces should be just larger than a pine nut)
- ¼ teaspoon Celtic or Himalayan sea salt
- 1 teaspoon chopped fresh thyme
- 1 cup kale, de-stemmed and chopped into small pieces
- ½ cup raw (untoasted) pine nuts

Directions:

1. Heat the butter and oil in a large shallow saucepan over low heat. Add shallots and sauté for 4 minutes. Add cauliflower, thyme, and ¼ teaspoon fine Celtic sea salt and sauté for 1-2 minutes more.
2. Cover and allow to cook until tender, about 6 minutes. Add kale and sauté until coated and to desired softness.
3. Stir in pine nuts and remove from heat.
4. Season with additional salt and pepper, if desired.

For all recipes, please use fresh, organic, locally-grown ingredients whenever possible, including organic, non-irradiated spices. This will give you the maximum cancer-fighting benefits.



Honeynut Squash With Red Cabbage Salad



Yield: Serves 4
Preparation Time: 50 minutes

Ingredients:

- 1 honeynut squash, washed, sliced in half lengthwise, seeds removed (or substitute a small butternut squash)
- 1 medium sweet potato, peeled and diced (about 1 cup)
- 1 or 2 Jerusalem artichokes, scrubbed and diced
- Grass-fed butter and/or olive oil
- 1 tsp chopped fresh thyme
- ½ medium head red cabbage, sliced thinly or diced
- 1 clove garlic, smashed
- ¼ cup pine nuts, untoasted
- ½ cup flat-leaf parsley, chopped and divided

Directions:

1. Place squash halves in a baking dish, cut side up. Dot with butter or drizzle with olive oil. Sprinkle with the thyme; bake until soft, about 35 minutes.
2. Toss the sweet potato and Jerusalem artichokes with a scant teaspoon olive oil and roast until lightly browned and soft to the touch, about 30 minutes.
3. When other vegetables are almost done cooking, heat one tablespoon olive oil or butter over low heat in a large pan. Add red cabbage and smashed garlic clove. Season with salt and pepper, if desired.
4. Cook 5 minutes, or until cabbage wilts, stirring often.
5. Remove garlic clove. Mix in most of the parsley, reserving one tablespoon for garnish. Add in sweet potato, artichoke, and pine nuts, toss to combine.
6. Plate the squash pieces and top each with half of the red cabbage mixture, allowing the salad to flow over the squash. Garnish with reserved parsley and serve.

This cooked “salad” is a delicious warming meal for the winter months. Honeynut squash is a cousin of butternut squash. Both are delicious, but honeynuts are a bit smaller and a touch sweeter. Both are a good source of fiber, potassium, and other important nutrients and vitamins. They support digestion and health vision, help maintain healthy blood pressure, and enhance the hair and skin.

Red cabbage is rich in anticancer phytochemicals as well as vitamins C, K, and B complex. It’s also a good source of minerals including iodine, magnesium, potassium, and iron.

Jerusalem artichokes (also known as sunchokes) are superstars when it comes to intestinal health. Sunchokes support digestion, boost immune function, and help stabilize blood glucose levels. These little roots are packed with inulin, a non-digestible dietary fiber with strong prebiotic properties. Studies show that the byproducts created during the fermentation process of inulin suppresses colon cancer tumor growth.

Serve this salad alone for a light lunch or snack or with a protein side for a heartier meal.



Red Lentil Detox Soup



Yield: Serves 4
Preparation Time: 50 minutes

Ingredients:

- 1 tablespoon olive oil or grass-fed ghee
- 1 large onion (or 3 shallots), diced
- 2 cloves garlic, minced
- 4 large stalks celery, sliced thin
- 1 bay leaf
- 1½ teaspoons ground cumin
- 2 teaspoons chipotle or ancho chili powder (use chipotle for a more smoky flavor)
- ½ teaspoon ground coriander
- ½ teaspoon smoked paprika
- ⅛ teaspoon cayenne pepper
- 1 15-ounce jar diced tomatoes
- 1 medium tomato, peeled, seeded and chopped into large pieces
- 6 cups broth (vegetable or bone broth in any combination of your choice)
- ¾ cup uncooked red lentils, rinsed and drained
- Finely-ground sea salt and freshly ground black pepper
- 5 ounces fresh baby or torn spinach, chopped carrot tops, baby kale, or baby arugula (about 2 cups)
- 1 bunch cilantro, washed well and chopped; divided
- ¼ cup parsley, chopped, for garnish

Directions:

1. In a large pot, heat the oil or ghee over low heat. Add the onion and garlic and sauté for 5 minutes, until the onion is translucent. Add the celery, season with sea salt, and sauté for a few minutes more.

Feeling overwhelmed from holiday eating or a bit under the weather? Enjoy this warming soup full of nutritious ingredients that are naturally detoxifying for the body.

Onions and garlic are packed with sulfur-containing amino acids that support detoxification. Cilantro is a well-known herbal powerhouse for escorting mercury and other heavy metals out of the body.

If your body is releasing toxins, but your digestion is sluggish, toxins will accumulate and you may end up reabsorbing them. Cumin helps to speed up the secretion of detoxifying enzymes that help the body remove cancer-promoting toxins.

Cayenne is a circulatory stimulant that helps keep lymph moving, and like cumin, supports digestion and toxin elimination. It heats up the body and induces sweating, further boosting detoxification.

Other ingredients include cooked tomatoes, which are loaded with cancer-fighting lycopene. You'll also get a good dose of healthy green veggies with the addition of spinach, parsley, and celery.



2. Add the bay leaf, cumin, chili powder, coriander, smoked paprika, and cayenne and stir to combine. Sauté for a few minutes, until fragrant.
3. Stir in the tomatoes, broth, and lentils. Bring to a low boil over medium heat. Simmer, uncovered, for 20-25 minutes, until the lentils are tender, reducing the heat if necessary. Season with salt and pepper, if desired. Remove and discard the bay leaf.
4. Stir in the spinach and half of the cilantro and cook until wilted.
5. Ladle into bowls and garnish with remaining cilantro.



About Charlene Bollinger



Charlene Bollinger is a devoted Christian, happily married wife, joyful mother of 4 beautiful home-educated children, health freedom advocate, co-founder of TheTruthAboutCancer.com and Organixx.com along with Ty and their partner, Jonathan

Hunsaker. She is a former model/actress/fitness buff, and lover of healthy food and healthy living.

After losing various family members to conventional cancer treatments, Charlene and Ty learned the truth about cancer and the cancer industry, and together work tirelessly helping others to learn the truth that sets them free to live healthy, happy lives.

Charlene speaks at various conferences and is a guest on various health related radio shows together with Ty, helping people to learn that cancer does NOT have to be a death sentence. Together they host a biweekly internet news show program, *TTAC Global Health News*.



How Sugar Feeds Cancer Growth

By Dr. David Jockers, DC, MS, CSCS

The cancer industry is a multi-billion dollar industry. These billions of dollars have resulted in technological advances in the detection and treatment of cancer. However, most of the cancer developments are just new versions of the same conventional treatment methods: chemotherapy, radiation, and surgery. Despite these new versions of conventional treatment, cancer remains the number two cause of preventable deaths in the United States.

Cancer cells differ from normal cells in many ways. Cancer cells prefer glucose for fuel, are metabolically damaged, produce low levels of ATP, produce rampant

amounts of oxidative species, and have inefficient mitochondria. Healthy cells can burn multiple sources of fuel, produce more ATP, and produce low levels of oxidative species.

Because of these cellular differences, a diet low in carbohydrates and high in healthy fats is vital for people fighting cancer. This includes the elimination of sugar and other insulinogenic foods from the diet. This article will discuss the mitochondrial metabolic theory of cancer, explain how sugar feeds cancer, and reveal the best dietary strategy to fight cancer.

The Mitochondrial Metabolic Theory of Cancer

The most commonly accepted mainstream theory of cancer is that cancer is a genetic disease of the DNA. This theory was challenged almost 100 years ago by Dr. Otto Warburg who discovered that cancer is a disease of the mitochondria rather than genetic. Mitochondria are rod-shaped organelles that can be considered the power generators of the cell – converting oxygen and nutrients into adenosine triphosphate (ATP).

In studying cancer cells, Dr. Warburg noticed a common bond between all cancers that differentiate them from normal cells. Normal cells use their mitochondria to burn oxygen and glucose together for energy. However, even in the presence of oxygen, cancer cells ferment glucose to produce energy. Dr. Warburg also discovered that cancer cells have an insatiable appetite for sugar. His observation that cancer cells ferment glucose to lactic acid using glycolysis even in the presence of oxygen is called the “Warburg effect.” [Note: Glycolysis is a series of reactions that extract energy from glucose.]

Dr. Warburg was ridiculed for his view of cancer, but now his theory is being proven with greater understanding of the mitochondria and epigenetics. Modern pioneers in the field of cancer research, including Dr. Thomas Seyfried, view cancer as a disease in which damaged mitochondria prefer glucose and glutamine for fuel.

In a recently published study conducted over nine years, the correlation between the strength of the Warburg effect and tumor aggressiveness was explained.¹ The study used yeast as a model organism because yeast have the same “Ras” proteins commonly found in tumor cells, which can cause cancer in mutated form. The study revealed how the hyperactive sugar consumption of cancerous cells leads to a vicious cycle of continued stimulation of cancer development and growth.

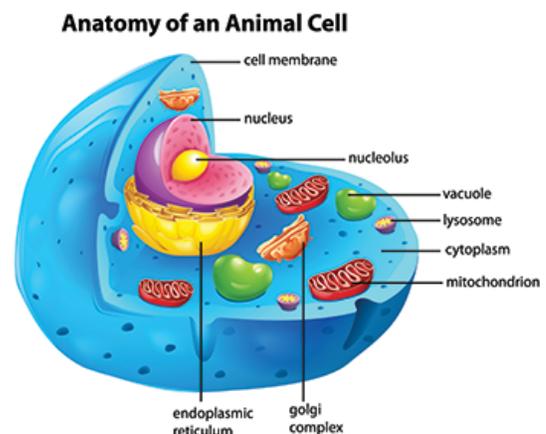
Based on the work of Dr. Warburg, Dr. Seyfried, and others, we now recognize the link between mitochondrial defects in cellular metabolism and cancer. Cancer cells are metabolically damaged in that their mitochondria are unable to operate efficiently. To better understand mitochondrial metabolic theory of cancer, it is important to discuss cellular respiration.

The Processes of Cellular Respiration

Cells need energy to perform vital functions such as responding to their environment, absorbing nutrients, exporting toxins, growing, replicating, and more. This energy is produced through a process called cellular respiration.

Cellular respiration can be divided into three metabolic processes: 1) Glycolysis occurs in the cytosol; 2) the Krebs Cycle takes place in the matrix of the mitochondria; and 3) Oxidative phosphorylation via the electron transport chain is carried out on the inner mitochondrial membrane.

Glycolysis is the first step of cellular respiration where glucose is broken down into chemical compounds called pyruvates. All cells are able to synthesize ATP through the process of glycolysis. Glycolysis does not use oxygen for its reactions.



Glycolysis occurs in the cytosol, which is the aqueous component of the cytoplasm of a cell

Glycolysis has two phases. In the first phase of glycolysis, 2 ATPs are used to break glucose from a 6-carbon molecule into two 3-carbon groups (phosphoglyceraldehyde or PGALs). In the second phase, the PGALs are converted to pyruvates or pyruvic acid, the end product of glycolysis.

The second phase of glycolysis generates 4 ATPs, so glycolysis generates 2 net ATPs and 2 NADHs and 2 3-carbon pyruvates. This can occur in the absence of oxygen (anaerobic). In the absence of oxygen, fermentation of glucose takes place.

The Krebs cycle (citric acid cycle) is the second metabolic process of cellular respiration and requires oxygen (aerobic). It produces 2 ATPs.



At TTAC's Live Event in Oct 2017, Dr. Thomas Seyfried explained the cancer-sugar connection this way:
"The higher your sugar, the faster the tumor grows.
The lower the sugar, the slower the tumor grows."

In glycolysis and the Krebs cycle, cells take NAD and combine with Hydrogen to form NADH. NADH is used to produce ATP in the third phase of cellular respiration, oxidative phosphorylation via the electron transport chain. The electron transport chain produces the bulk of the ATPs (34 ATPs) and it requires oxygen.

Aerobic Respiration and Anaerobic Respiration

The energy released by cellular respiration is necessary for life. There are two types of respiration – aerobic and anaerobic.

1 | Aerobic Respiration

Aerobic respiration occurs in the mitochondria when ATP is formed from glucose. This process involves breaking glucose down into pyruvate in the cytosol, transporting it to the mitochondria, and forming ATP as described in the three processes above. Oxygen is necessary for this process to occur.

Aerobic respiration is the default method of energy production for healthy cells. The byproducts of this process are 38 molecules of ATP and carbon dioxide, which is released through breathing.

2 | Anaerobic Respiration

Anaerobic respiration takes place when there is a lack of oxygen. This occurs in the cytosol of the cell where glucose is broken down into pyruvate and directly converted into ATP and lactic acid. This process never reaches the mitochondria and only generates 2 molecules of ATP.

If oxygen is not present, pyruvate is metabolized in a process called fermentation. Fermentation makes it possible for ATP to be continually produced in the absence of oxygen. Anaerobic respiration is much less efficient than aerobic respiration.

While anaerobic respiration produces a tiny fraction of the energy that aerobic respiration produces, it generates ATP at almost 100 times the rate. Rapidly dividing tissues, such as healing wounds or cancer, tend to take advantage of anaerobic respiration for quick energy

production. In addition to quick energy production, other aspects of anaerobic respiration can advance growing cancer cells.

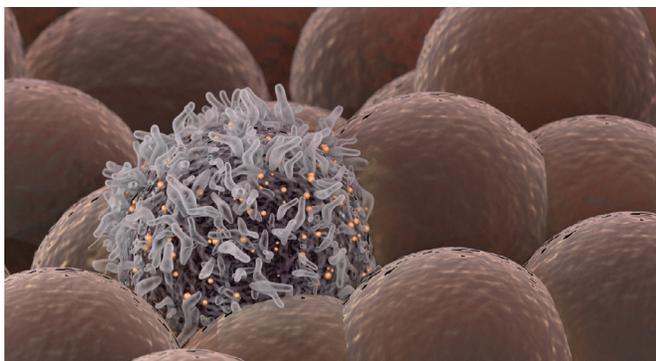
Cellular Respiration of Healthy Cells vs. Cancer Cells

A healthy cell with enough oxygen should perform both glycolysis and oxidative phosphorylation for the production of energy. Healthy cells can also use ketone bodies converted from fatty acids, to produce ATP through aerobic respiration.

Even in the presence of oxygen, cancer cells choose to undergo glycolysis, utilizing glucose (and sometimes glutamine) as the favored substrate.² There are two ways to view glycolysis in cancer cells.

1 | Glycolysis as a Byproduct of Damaged Mitochondria

Glycolysis in cancer cells may be a byproduct of damaged mitochondria. Damaged mitochondrial structures within cancer cells may inhibit the cells' ability to undergo aerobic respiration. In cancer cells, glucose enters the cell and is converted into pyruvate within the cytosol but cannot enter the mitochondria to undergo aerobic respiration. As a result, growing cancer cells upregulate glucose transport proteins on their surfaces in order to take in as much glucose as possible.



Growing cancer cells upregulate glucose transport proteins on their surfaces in order to take in as much glucose as possible

2 | Adaptation of Cancer Cells to Favor Glycolysis

A second way to view glycolysis in cancer cells is that cancer cells have adapted to favor glycolysis for its growth-promoting properties. Glycolysis produces energy more rapidly than aerobic respiration and promotes an environment where cancer cells can divide rapidly.

3 | Lactic Acid and Carbon from Anaerobic Respiration

Cancer cells produce excess lactic acid as a byproduct of anaerobic respiration. Excess lactic acid shuts off the body's anti-cancer immune response by deactivating anti-tumor immune cells.³ This essentially shields cancer from the immune system. At the same time, rapid cell growth requires a lot of raw materials to make new cells.

Carbon retained in glycolysis can also contribute to the rapid division of cancer cells. Carbon is one of the primary atoms that form new cell structures. Carbon atoms are linked together to form the backbones of cell structures.

After glucose is metabolized, it leaves carbon. Aerobic cellular respiration excretes this carbon through the breath via carbon dioxide. However, glycolysis retains the carbon, which allows for a more rapid division of cells through a higher availability of raw materials.

The Role of Epigenetics

While genetics is the predominant theory of cancer, recent advances in the study of epigenetics have shown that human cancer cells have global epigenetic abnormalities in addition to numerous genetic alterations.⁴ These genetic and epigenetic alterations interact at all stages of cancer development, working together to

promote the progression of cancer. It is the epigenetic events that may be the key initiating events in some forms of cancer.

Epigenetics is the study of heritable changes in gene expression that occur independent of changes in the primary DNA sequence. In other words, epigenetics is the study of how diet, lifestyle, and other environmental inputs can affect genes. Epigenetic changes occur much more rapidly in the mitochondria. The healthier your mitochondria are, the healthier you will be.

Epigenetics plays a role in cancer because the damaged mitochondria send epigenetic signals to upregulate genes involved with cell division and downregulate tumor suppressor genes to compensate. Rather than genetics as the cause of cancer, the focus should be on the profound epigenetic changes that occur in cancer.

How Sugar Affects the Immune System

Another critical aspect of the role sugar plays in cancer is the impact sugar has on the immune system. Sugar weakens the ability of the immune system to fight cancer in several ways.

1 | By Inhibiting the Absorption of Vitamin C

White blood cells are the soldiers of our immune system. They attack foreign invaders in our bodies, including cancer cells. In order for white blood cells to operate at their full capacity, they require high amounts of vitamin C. Our internal antioxidant system transports the vitamin C we get from foods to our cells for use via glutathione.⁵

Glucose is similar in its chemical structure to vitamin C. Both sugar and vitamin C rely upon insulin to enter the cells via the Glut-1 receptor on the cell membrane. Glucose has a higher affinity for this receptor and is absorbed more readily than vitamin C. Due to

this mechanism, high levels of blood sugar inhibit vitamin C from entering the white blood cells. This reduces immunity and the ability to fight cancer cells.



Sugar weakens the immune system's ability to fight cancer in a number of ways

2 | By Reducing the Phagocytic Index

White blood cells destroy foreign pathogens by engulfing them and breaking them down into benign byproducts. This process is called phagocytosis. The measure of how well a white blood cell is able to perform this function is called the phagocytic index. The higher the phagocytic index, the better chance the immune system has to fight cancer cells.

Because high levels of sugar inhibit adequate amounts of vitamin C from entering white blood cells, it also lowers the phagocytic index of white blood cells. In fact, it has been shown that a blood sugar level of 120mg/dL (6.7 mmol/L) actually reduces the phagocytic index by 75%.⁶ This impairs the ability of white blood cells to fight cancer.

1 | By Turning Off the Insulin HMP Shunt

In addition to being important for the proper phagocytic functioning of white blood cells, vitamin C is critical for stimulation of the hexose monophosphate (HMP) pathway.⁷ The HMP pathway is important for destroying pathogens because it produces NADPH. NADPH is used by white blood cells to make superoxide and reactive oxygen species.

The HMP shunt also produces ribose and deoxyribose, which provide important raw materials for the formation of new white blood cell RNA/DNA.⁸ When the immune system is under attack it needs to quickly produce new immune cells. If blood sugar is high enough to turn off the HMP shunt it will reduce the quantity of RNA/DNA and the number of new immune cells formed.

The Importance of AMP-K

AMP-K (Adenosine Monophosphate-activated Protein Kinase) is a cellular enzyme that regulates the ways our bodies use and transform energy. AMP-K serves as our body's master regulating switch and is involved in regulating glucose uptake, creating new mitochondria, and more.



Intense exercise, intermittent fasting, and carbohydrate restriction all help to increase upregulation of a cellular enzyme (AMP-K) that helps direct glucose away from cancer cells

When intracellular ATP levels lower, AMP-K is activated. Upregulation of AMP-K has been shown to inhibit cancer growth.⁹ Upregulation of AMP-K diverts glucose away from cancer cells and towards the body's healthy tissues.¹⁰ In fact, activation of AMP-K may help to reverse the glycolytic preference of cancer cells, giving them an energetic disadvantage.¹¹

AMP-K activity can be upregulated by intense exercise, intermittent fasting, and carbohydrate restriction.^{12,13}

There are a number of peripheral benefits of AMP-K activation that affect key physiological pathways associated with cancer growth. These include mTOR, the p53 gene, and COX-2 enzymes.

1 | mTOR

mTOR (mammalian target of rapamycin) is a physiological pathway that regulates cell growth and replication. mTOR is necessary for a healthy body. However, a chronically activated mTOR pathway contributes to the development of cancer.

Cancerous tissues have an elevated expression of mTOR signaling that may contribute to rapid cell growth. Insulin is one of the primary activators of mTOR. Chronic consumption of sugar leads to chronically high levels of insulin.

Lowering dietary glucose, fasting, and a ketogenic diet are critical to diminish mTOR as a contributing factor for cancer growth.^{14,15} By combining these techniques, blood sugar becomes stable, insulin drops, and these growth pathways become less of a contributing factor towards cancer growth.

2 | The p53 Gene

The p53 gene responds to damaged DNA sequences and regulates gene expression in cancerous tissues. When DNA can be repaired, the p53 gene allows the cell to go back into its normal cycle of growth and reproduction. When the DNA cannot be repaired, the p53 signals for cellular apoptosis (programmed cell death).¹⁶ This critical gene is inactive in many cancers.¹⁷

High blood sugar is recognized as a contributing factor for inactive or mutation of p53 genes. This mechanism may be due to hyperglycemia inhibiting the absorption of zinc, which activates the p53 gene. AMP-K activation improves p53 expression and prevents it

from becoming inactive by phosphorylating p53 and making it more stable.¹⁸ [Note: Phosphorylate means to introduce a phosphate group into a molecule or compound.]

3 | COX-2 Enzymes

COX-2 (Cyclooxygenase-2) is a pro-inflammatory enzyme that is elevated in many cancers. This enzyme may contribute to the aggressiveness of tumors.¹⁹

Many cancer therapies target the COX-2 enzyme with pharmaceuticals. A holistic approach to lowering this inflammatory enzyme has the potential to heal cancer. While more research is needed in the area, activation of AMP-K has also been linked to COX-2 inhibition.²⁰

Ways to Put Cancer at a Metabolic Disadvantage

Cancer cells are highly glycolytic and thrive in an acidic environment. Therefore, it is imperative to put cancer cells at a metabolic disadvantage by restoring mitochondrial function and epigenetic regulation.

The best way to accomplish this is to reduce sugar and increase fatty acids in the blood stream. As a result, AMP-K will be upregulated and aerobic metabolism will be driven towards the oxidation of fatty acids over glucose. The following strategies will help you upregulate AMP-K and convert your body from burning sugar to burning fat for fuel.

1 | Eliminate Sugar and Starchy Carbohydrates

Insulin is released in the body when sugar and starchy carbohydrates are consumed. Cancer cells have an abnormally high number of insulin receptors and extremely upregulated glucose metabolism. Cancer cells steal sugar that should be going to your healthy cells. This results in more insulin being released, which promotes the growth of cancer cells.



Insulin is released in the body when sugary and starchy foods are consumed. Cancer cells have 10-50 times more insulin receptors than normal cells!

To limit the amount of insulin in the body, you must remove sugar and highly insulinogenic carbohydrates from the diet. Instead of sugar and starchy carbohydrates, the majority of calories should come from healthy fats.

Protein should be consumed in small to moderate amounts. Overconsumption of protein can result in gluconeogenesis where the body converts proteins into glucose.

2 | Implement a Ketogenic Diet

The ketogenic diet is a nutrition plan that helps the body produce ketones and utilizes these ketones as an energy source. This nutrition plan is low in carbohydrates, moderate in protein, and high in fats.

A ketogenic diet is important for strengthening healthy cells and weakening cancer cells. As discussed earlier, cancer cells cannot utilize ketones for fuel. Instead, they steal glucose from healthy cells for energy because they cannot utilize ketones as a fuel source.

With a ketogenic diet, your healthy cells use ketones from fat for energy, rather than glucose from carbohydrates. Once the body is in ketosis there is no glucose for the cancer cells to steal. Without glucose, the cancer cells are weakened.

3 | Stimulate Mitochondria

When you reduce sugar and starchy carbohydrates from your diet, your brain will receive signals that you need more glucose for energy. This will likely trigger cravings for carbohydrates.

For people with cancer, mitochondria are weakened. Because of the weakened mitochondria, carbohydrate cravings can be pronounced in the beginning stages of the ketogenic diet.

Implementing strategies to stimulate the mitochondria will allow the body to make ketones more quickly and to reduce the carbohydrate cravings. Exogenous ketones or MCT oils containing C8 and C10 fatty acids can help stimulate the mitochondria.

Carbohydrate cravings will diminish once ketone production becomes efficient. Exercise, good hydration, optimal mineral intake, supporting the HPA axis, and stimulating dopamine production will also help reduce cravings.



Coconuts are one of the best sources of MCT oil, which is a translucent and tasteless oil at room temperature

4 | Intermittent Fasting

Intermittent fasting has numerous benefits. It is a powerful strategy to reduce insulin levels and increase AMP-K activity. Intermittent fasting strengthens the immune system, which boosts the ability of white blood cells to seek out and destroy cancer cells.

Intermittent fasting also stimulates cellular autophagy (breaking down of damaged and abnormal cells) and genetic repair of cells. This benefit becomes more powerful during longer bouts of fasting for 24 hours or more. Intermittent fasting also improves your metabolic flexibility to help you achieve a deeper state of ketosis at a much quicker rate.

The best way to start intermittent fasting is to fast for a 12-hour window between dinner and breakfast the following day. During this 12-hour window consume only water or non-caloric herbal teas. Once your body tolerates this well, work up to a longer fast.

Critical Ketogenic Diet Tips

In addition to the strategies outlined above, there are additional ways to ensure you are optimizing your health on a ketogenic diet.

1 | Super Hydration

While in a fasted state, it is a great time to drink plenty of water to ensure proper hydration and to assist with gentle detoxification. It is extremely important that you get clean (i.e. filtered) water that does not contain chlorine or fluoride.

To super-hydrate your system, drink 32 ounces (1 liter) of water within the first hour of waking and another 32-48 ounces (1-1.4 liters) of water before noon. Additionally, you should aim to consume close to your full body weight in ounces of water each day. For example, a 150

pound person can aim to drink 150 ounces of water (4.4 liters) in the form of water, herbal teas, lemon water, broth, etc.

This amount of water may seem excessive, but as long as it comes with enough minerals (adding in a pinch of good quality salt), it is extremely cleansing to the body. In addition, staying hydrated will improve your energy and reduce feelings of hunger or cravings.

2 | Replenish Minerals

It is important to consume high quality salt such as Himalayan pink salt while following the ketogenic diet. This is particularly important during the initial adaptation phase to the ketogenic diet when the body excretes excess sodium and minerals due to the drop in insulin levels.



To stay super hydrated drink 4 cups of water within the first hour of waking and another 4-6 cups before noon

The best way to replenish these minerals and avoid symptoms of the "keto flu" is to use a high quality pink or gray salt and drink organic bone broth throughout the day.

3 | Exercise Regularly

High-intensity exercise in short bursts (surge training) increases AMP-K, promotes metabolic flexibility, and increases oxygenation of tissues. It is important to limit high-intensity interval training to 15-20 minutes, two to four times a week. Doing more can raise cortisol and pull you out of ketosis.

Regular, low-intensity exercise is also beneficial. Bare-foot walking outdoors has the added benefit of contact with free electrons from the Earth. These electrons support your electromagnetic frequency, which calms your stress response and improves healing and well-being.

4 | Improve Bowel Movements

Regular bowel movements are important because constipation can increase stress hormones and pull you out of ketosis. Many people experience constipation on a ketogenic diet, but there are many steps you can take to improve your bowel movements.

Consuming plenty of fibrous vegetables, fermented foods, water, and minerals can aid the digestive system. Stress inhibits proper digestion so be sure to perform an act of gratitude or prayer before meals to put your body into a resting state.

Bacterial overgrowth in the intestines can cause poor digestion and must be addressed if present. Supplementation with magnesium can be a great remedy for constipation while also supporting the body for optimal health overall.

5 | Control Protein Intake

Eating too much protein can stimulate gluconeogenesis. Gluconeogenesis is a metabolic pathway by which the body converts non-carbohydrate sources (like amino acids) into glucose. Gluconeogenesis will raise blood sugar and take you out of ketosis.



Aim to consume around 0.4-0.5 grams of protein per pound of body weight each day

Most individuals should aim for 0.4-0.5 grams of protein per pound of bodyweight and around 20-30 grams per meal. This means a 150 pound individual needs about 60-75 grams of protein each day. More active individuals and those involved in intense weight training or athletic endeavors may go up to 0.6-0.7 grams of protein per pound of body weight on heavy training days.

6 | Use MCT Oil

Producing ketones can be a stressor on the body, especially if you have mitochondrial dysfunction. This stress can be relieved with MCT oil. MCT oil is easily converted into ketones to alleviate this stress and improve your state of ketosis.

Medium chain triglycerides (MCTs) are unique fatty acids that are found naturally in coconut and palm oils. They have a remarkable ability to stabilize blood sugar and enhance ketone body production.

The two MCTs most readily converted into ketones are capric and caprylic acids. It is important to find MCT oil that is pure caprylic and capric acid and is free of lactic acid. This form of MCT oil is instant fuel for the brain and helps keep ketones up. This allows the body to easily

switch over from burning sugar to ketones as its primary fuel source.

7 | Less Stress, More Sleep

With our busy lives, we all have a certain amount of stress. To maintain an optimal state of ketosis, it is important to minimize the stress in our lives and obtain optimal sleep.

There are several strategies you can use to minimize stress. Prioritize the things that matter most to you and say no to the things that do not. Moderate exercise and a positive mindset can also reduce tension.

Restorative sleep is one of the best ways to counteract stress. Sleep is vital for optimal functioning and sleep deficiencies are linked to a number of health issues.²¹

For optimal sleep, it is important to:

- Be in bed no later than 11 p.m.
- Blackout your room with blackout curtains or a sleep mask
- Keep the temperature between 60-65°F (15-18°C)
- Get sunlight in the morning to prime the circadian rhythm
- Avoid blue light exposure 4 hours before bed (with blue light blocking glasses or turn off the devices)
- Use caffeine early in the day in small quantities and cycle on and off caffeine.



Wear a sleep mask or use blackout curtains in your bedroom

Developing a relaxing routine that you go through every night before bed can help you sleep better. This could include prayer, meditation, gratitude journaling, light stretching, spending time with family, or anything that brings you peace and comfort.

An important micronutrient that plays a critical role in stress and sleep is magnesium. Magnesium helps balance blood sugar and relieves physical tension, both of which are related to stress and impaired sleep.

Magnesium also helps regulate melatonin and GABA levels in the brain. Both melatonin and GABA are necessary for sleep. Supplementing with magnesium may help the brain signal the body for sleep.



If a soothing bedtime routine isn't enough to help you sleep, supplementing with magnesium may prove beneficial

Conclusion

Cancer is a multi-billion dollar industry that relies on chemotherapy, radiation, and surgery. The mainstream theory of cancer is that it is a genetic (hereditary) disease. Most conventional cancer treatment centers in the U.S. do not include good nutrition as a part of treatment.

Based on the work of Dr. Otto Warburg and others, we now understand that cancer cells have damaged mitochondria and metabolize sugar for fuel. Epigenetic alterations also play a role in the development of cancer.

Sugar affects the immune system by inhibiting the absorption of vitamin C, reducing the phagocytic index, and turning off the insulin HMP shunt. Sugar weakens the immune system's ability to fight cancer.

Activation of the cellular enzyme AMP-K affects key physiological pathways associated with cancer growth, including mTOR, the p53 gene, and COX-2 enzymes. Intense exercise, intermittent fasting, and carbohydrate restriction can activate AMP-K.

To put cancer at a metabolic disadvantage, sugar and starchy carbohydrates should be eliminated. The best diet to fight cancer is the ketogenic diet, which relies upon high amounts of healthy fats, moderate protein, and low amounts of non-starchy carbohydrates. Intermittent fasting and stimulating the mitochondria also put cancer cells at a metabolic disadvantage.

Tips for implementing a ketogenic diet are to super hydrate, replenish minerals, exercise regularly, improve bowel movements, control protein intake, use MCT oil, minimize stress, and optimize sleep.

Eliminating sugar from the diet, getting the body into a state of ketosis, and intermittent fasting are powerful stand-alone healing practices and can be used to improve the outcomes of traditional treatments.

About Dr. David Jockers



Dr. David Jockers is a functional nutritionist, corrective care chiropractor, exercise physiologist, and certified strength & conditioning specialist.

He runs one of the hottest natural health websites: DrJockers.com and is the author of *SuperCharge Your Brain*, the complete guide to radically improve your mood, memory, and mindset, and the *SuperCharged Healthy Recipes* book with over 180 full-color recipes to help you take back control of your health. He is a regular contributor to thetruthaboutcancer.com and has well over 1,200 professionally published natural health articles on the web and in print magazines.

Dr. Jockers is a sought after speaker around the country on such topics as weight loss, brain health, functional exercise, natural detoxification, and disease prevention. He currently owns and operates Exodus Health Center in Kennesaw, Georgia.

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