

Head & Neck Cancer - Insights from Dr. Mike Milligan, a Survivor

1/8/24

TARGET AUDIENCE:

- Patients – to help them through head & neck cancer treatment.
- Physicians, nurses, cancer centers, and all related healthcare personnel – to help educate them about the dental needs of head & neck cancer patients and therapies available for them.
- Dentists – to help them better care for their patients with head & neck cancer.

DISSEMINATION: I have written this in an effort to help as many people as possible. Please feel free to share this in print or online publications, on web sites, in social media, with cancer centers, physicians, dentists, other healthcare professionals, and patients, etc. It is available on my web sites <https://OralSystemicLink.net> and <https://www.EastlandDental.com>.

CONFLICT OF INTEREST DISCLOSURE: None. No company is paying me to mention products in this article. I mention products based solely on personal experience and information I have learned.

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QUICK SUMMARY OF MY STAGE 4 HEAD & NECK CANCER

Hello. I am Mike Milligan. I am a general dentist in Illinois. I am a founding member, past board member, and past president of the American Academy for Oral & Systemic Health – the #1 organization in the world for bringing together physicians, dentists, and allied healthcare professionals for the better overall health of their patients. I am founder and president of OralSystemicLink.net, “Saving Lives through Oral-Systemic Health.”



On 7/9/19, I had my first nosebleed ever, a bad nosebleed that it took 1 ½ hours in the hospital to stop. My ear/nose/throat (ENT) physician told me if it happens again to come back. Then nearly a year later in mid-April, 2020, I had a second nosebleed, and on June 3 and June 4, 2020, I had two more nosebleeds. We did a CAT scan of my nasopharynx on 6/5/20, then biopsy on Thursday 7/9/20, then on Sunday 7/12/20, at 1:41pm I looked at my phone and saw the call coming in was from my ENT, and I knew it was not good. He gave me the diagnosis of squamous cell carcinoma of the nasopharynx. My ENT referred me to a local oncologist in our town, and after further testing I received a diagnosis of Stage 4a, T2, N3, MO, squamous cell carcinoma of the nasopharynx (behind my nose), metastasized to several areas down both sides of my neck. I had my treatment at the University of Chicago Medical Center. They gave me a 50/50 chance of surviving.

“Stages” of cancer:

- Stage 0: There is no cancer, only abnormal cells with the potential to become cancer. Also called “carcinoma in situ.”
- Stage I: The cancer is localized to a small area and hasn’t spread to lymph nodes or other tissues.
- Stage II: The cancer has grown larger, but it hasn’t spread.
- Stage III: The cancer has grown larger and has possibly spread to lymph nodes or other tissues.
- Stage IV (=4): The cancer has spread to other organs or areas of your body.

My treatment consisted of 9 weeks of immunotherapy plus chemotherapy, with infusions every Friday. Then treatment continued with 6 ½ weeks of daily radiation (33 sessions), plus strong chemotherapy. I did not have surgery, as my cancer was behind my nose in a difficult place to do surgery. I am now 3 years cancer-free.

KEYS TO MY SUCCESS IN BATTLING CANCER

For me, four big keys to my success in battling cancer were 1) a strong faith in God. 2) I knew my “Why,” the reason to beat my cancer: I wanted to be with my wife, children, and grandchildren and enjoy their love for many more years. I also wanted to play more golf, a game that I absolutely love. 3) I sought the prayers, support, and insight of family and many friends during my cancer therapy. 4) My constant efforts always to be as healthy as possible before a health crisis like cancer occurs - by eating a proper diet, exercise, adequate sleep, reducing stress, etc.

I reached out to as many people as possible immediately after I received my cancer diagnosis. I know so many people in dentistry, in medicine, my community, my dental patients, and my family and friends. I wanted their prayers, support, insight, and recommendations as I prepared for and went through my treatment. I received hundreds of phone calls, texts, and greeting cards from so many friends – it really helped to have all this support. Likewise, freely give your love, prayers, and support to those in need.

Two of my brothers, plus two local orthopedic surgeon friends of mine told me to get out of our small community and go to a big facility where they see a lot of this, so I went to the University of Chicago Medical Center. This was a very good decision.

The day I had to shave all my hair off because my hair was falling out, all three sons-in-law shaved their heads to show their support for me. When my wife and I moved to Chicago for 6 ½ weeks for my 33 radiation treatments, one son-in-law moved up with us and stayed with us except weekends, and

helped us so much. This was during Covid work from home policies, so he was able to move there with us and work from our rented apartment. This type of support helps so much as you go through cancer.

“BE YOUR OWN HEALTH ADVOCATE”

One of my local orthopedic surgeon friends, who previously had cancer, told me that I need to “BE MY OWN HEALTH ADVOCATE.” I asked what that meant. He said, “You will find out. But if something doesn’t sound right, or if you have any question or need, keep asking until you are satisfied – it is your body and your health.” I found this to be GREAT advice as I went through this cancer journey. Know what is going on, take an active role, you must be more concerned about your health than anyone else.

Here is an example of “Be Your Own Health Advocate.” A second orthopedic surgeon friend of mine, the one who told me to go to the University of Chicago for cancer treatment – told me to do immunotherapy if at all possible (apparently it works about 30% of the time and is very helpful when it does), and maybe it will reduce the radiation, which leaves the worst side effects. I trusted him and asked every cancer doctor who saw me locally and at the University of Chicago if I could have immunotherapy. Five cancer doctors said no. The last one I could possibly ask was the Fellow doctor who was learning from my main medical oncologist physician, and he said maybe there is a study that they are doing at the University of Chicago that I could qualify for that included immunotherapy. As the other doctors reviewed my case, they decided that I did qualify for this study and it would be a good plan of treatment. The immunotherapy & chemotherapy treatment after nine weeks reduced my cancer by 80% - it was very successful. It did not change or reduce the second phase of radiation and chemotherapy, but definitely helped my probability of survival.

Here is another example of “Be Your Own Health Advocate.” One oral surgeon friend told me before I begin my radiation treatment to extract all my molar teeth (back chewing teeth) due to problems the radiation can cause if a tooth needs to be extracted later after radiation therapy. I reached out to many dentists for advice – two other oral surgeons, a dental oncologist, and many others. Realize that a lot is coming at me very fast and I need to make life-altering decisions quickly. My radiologist could not yet say the exact amount of radiation I would receive and where. With some research and inquiry on my part I learned the U of Chicago does have the very latest radiation technology that would help pinpoint my radiation treatments, thereby affecting my teeth as little as possible, and help me keep as much of my salivary glands as possible, another factor in saving my teeth. I am a dentist and know I keep my teeth much cleaner than the average person. So I decided to keep my molar teeth. It was a very good decision, as after it is all over, it appears final radiation dose will only be a problem if my last molar tooth on the bottom right is extracted, my oral hygiene is excellent, my saliva is better than expected, and I am likely to keep all my molar teeth for my lifetime.

Prevention, early detection, and early treatment are very important! This is definitely part of being your own health advocate. This applies to cancer, other medical concerns, dental care, even your relationships and financial concerns – be sure your will, powers of attorney, beneficiaries, etc, are all in place. With excellent health habits, you may be able to prevent many health concerns, or detect them early and have them treated much easier and more effectively than if they are detected later. The healthier you are prior to cancer therapy, including dental health, the better you may tolerate your cancer treatment. Stay as healthy as you can during cancer therapy, and then once again after your cancer therapy try to get as healthy as you possibly can before any future health concerns.

- For overall health, consider regular medical checkups, proper nutrition, exercise (including stretching, aerobic, and strength exercises), adequate sleep (7 to 9 hours of sleep per night), reducing stress, etc. Eat less sugar, and more fiber. Get tested for sleep apnea. Learn about and pay attention to your gut health and gut microbiome; consider prebiotics and probiotics. Your genetics definitely plays a role, but so does your lifestyle and other factors.
- For dental health consider regular dental checkups, annual oral cancer exam, repair of all dental cavities, treat all dental abscesses, have healthy gums including the elimination of five bad bacteria in your mouth named Aa, Pg, Td, Tf, and Fn, that affect your overall health, and eliminate bleeding of your gums and gum pockets. Your dentist can test for these five bad bacteria in your mouth that affect your overall health, by using an inexpensive simple saliva test from companies like Direct Diagnostics or OralDNA. As you eliminate these five bad bacteria, many of the other bad bacteria in your mouth also decrease. Many dentists can also help you with airway, breathing, and sleep apnea.

There are different opinions related to cancer, its prevention, and its therapy. There are many holistic preventions and therapies. Things came at me so fast after my diagnosis that I did not have time to look into the holistic information, so I made the decision to have conventional therapy at the University of Chicago Medical Center, and it was a good decision for me. Dr. Mark Cannon told me sugar feeds cancer cells, so avoid sugar, and substitute xylitol for regular sugar, plus increase Vitamin C. My cancer doctors told me that during my cancer therapy I could eat all the ice cream and other sugary foods I wanted because they were more worried about me losing weight. Antioxidants are usually considered beneficial to health, yet my cancer doctors did not want me to take antioxidants during cancer therapy due to the planned effect of and interaction with the cancer drugs. I attended a lecture by Dr. Thomas Seyfried of Boston College, who says cancer is a mitochondrial metabolic disease, not a genetic disease, and the simultaneous restriction of glucose and glutamine can help manage most cancers, hence he promotes the “Press-Pulse Therapeutic Strategy for the Metabolic Management of Cancer” as an effective strategy for the possible management of most cancers. This would be very different from those who follow the Somatic Mutation Theory of “cancer is a genetic disease” model. I am not a cancer expert, but I am just letting you know you will hear many different and sometimes conflicting things as you attempt to navigate through your cancer therapy. So know as much as you can, and work very closely with your healthcare team.

DENTAL CARE BEFORE STARTING HEAD & NECK CANCER THERAPY

Your cancer doctors will probably want a dentist to evaluate you before you begin your head and neck cancer treatment. As in anything, some dentists know more about this than others.

Extractions - if you have teeth that may someday need to be extracted due to large restorations, decay, or gum disease, they should be extracted BEFORE radiation treatment, especially if they are in the area to be radiated. There can be major problems if you extract teeth after the radiation treatment affects the bone surrounding them.

“Radiation trays” to cover your teeth during your radiation treatments may need to be made by your dentist before they fit you for the radiation “mask” that precisely positions you on the table for radiation. Metal fillings, crowns, and other restorations in your mouth can reflect the radiation and cause burns inside your mouth and on your cheeks, so these radiation trays help protect against that (see more info below in this article).

“Fluoride trays” may need to be made that you will use to bathe your teeth in fluoride gel daily for 10 to 15 minutes to help protect against cavities (see more info below in this article).

THINGS THAT HELPED ME – AND I HOPE WILL HELP YOU

NOTE – IN ALL THINGS BELOW, ASK YOUR CANCER DOCTORS IF YOU CAN TAKE THESE, AS THEY HAVE REASONS FOR WHAT THEY MAY OR MAY NOT WANT YOU TO USE. WORK WITH YOUR DENTIST, TOO.

MOUTH SORES

Mouth sores can get so bad that you cannot eat, or maybe even drink. If you lose too much weight, you lose muscle, possibly to the point you cannot gain it back. The more muscle mass you have, the less risk you have of dying from chronic disease. Therefore, the doctors and nurses tell you to eat and drink all you can before and during your cancer therapy.

Stella Life Recovery Kit – these oral care products helped me so much. I met Gennady Sirota, CEO of Stella Life in Sept 2019. He is a very honest, open, intelligent individual. I was very impressed with his desire to help others. At Gennady’s direction, I started the Stella Life kit 3 days before radiation treatments began. I used it exactly as he said – the mouthwash, the spray, and the gel on the sores, 3x/day. I did this immediately after I cleaned my teeth very well with tongue cleaner, dental floss, Water Pik (Aquarius model) with 8 drops of household bleach in the full well of 20 ounces of water to reduce the *microbial burden*, then Sonicare toothbrush with toothpaste. The Stella Life products were an absolute game-changer! They cleaned AND soothed the sores. They helped me swallow and not need a feeding tube. They helped me with my pain. I got to where I could not eat food, but I could keep swallowing liquids like Ensure or Boost, and I only lost 14 pounds through my cancer treatment.



“Magic Mouthwash” – is helpful for mouth sores for some people – swish and swallow. There are several versions of magic mouthwash. Some are available in pre-measured kits that can be mixed together by pharmacists, while others are prepared to order by a pharmacist. If it is determined that magic mouthwash might be helpful, your doctor will write a prescription.

Salt and soda water: for mouth sores related to radiation and/or chemotherapy, the cancer center said to use salt and soda water and gargle with this 4 to 5 times per day as soon as you begin treatments. You can mix ½-teaspoon baking soda + ½-teaspoon salt in a quart of water. Alternatively, you can make a larger amount – the University Of Chicago told me to mix 1-liter water, 1-tablespoon salt, and 1-tablespoon baking soda. This cleaned the sores well, but left an open wound that hurt to swallow, especially food, so I used Stella Life instead of this.

Ozone water rinse: another doctor friend of mine recommended Ozone water rinse. He even showed me how to make an ozone-producing machine. I purchased all the items, made the machine, made the water, and found it cleaned the mouth wounds very well, but like salt & soda gargle, it hurt to swallow. It did not soothe or protect the wound at all. So I used Stella Life instead of this.

SWALLOWING

Dr. Dennis Abbott, dental oncologist, had told me no matter how sore it gets, I must try to keep swallowing. Continue to swallow as long as you can, even if you get a feeding tube. Otherwise, the swallow muscles will atrophy, and your muscles will quickly forget how to swallow and it is very difficult and takes a long time to re-train yourself to swallow. Then you need to go through therapy to learn how to swallow again. Even if it's just water, try to swallow as much and as long as you can. One of my very best friends went through that, and it was very hard for him. I cannot say enough about Gennady Sirota and Stella Life, which allowed me to continue to swallow and avoid a feeding tube. The two times I have seen Gennady since, I just hugged him, got tears of gratitude in my eyes, and thanked him over and over.

The University of Chicago gave me exercises to help my swallowing muscles, and tips to help me swallow food. If your cancer center does this, it is very helpful to follow their advice.

RADIATION BURNS

“Radiation Trays” – Metal fillings, crowns, and other restorations in your mouth can reflect the radiation and cause burns inside your mouth and on your cheeks. Therefore, they will have you remove any removable partial dentures that have metal. They may request your dentist to make custom “Radiation Trays” to cover your teeth during the actual radiation treatments. Sometimes they will just use pre-made trays, but these may not be as comfortable. Note to dentists - in our dental office, we make the custom suck down radiation trays from models of your teeth with a Biostar machine using 2mm or 3mm thick, soft EVA material. They must cover the entire teeth, but not be long onto the gingiva or you will not be able to tolerate them – the gums will be exquisitely sore during treatment. Trim them TO the gingival margin on the buccal and lingual, not short and not long. Do not scallop them; go straight across.

“Radiation Gel” – they may recommend a gel to use on your neck and face and any skin in the field of radiation for your radiation treatments!!!!!! After many treatments, the skin burns, so the gel is extremely important from the very beginning. The University of Chicago recommended RadiaPlex® Rx Gel for me.

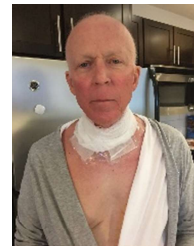
- Use it as soon as you get it, even before you start radiation treatment.
- Use it 3x/day.
- Do not use it immediately before radiation treatments; your tissues as they are being radiated must be clean and dry. If they have gel on them while they are being radiated, it can make the radiation burns even worse.



Neck burns from the radiation – it hurt. A lot! And chemo brain was making me very afraid how much worse the burns would get. It is not bad at first, but gets progressively worse through treatment. After about 20 treatments, with 2 ½ weeks to go, I told the nurses I don't think I can take it anymore unless they can give me something to help me – I think I need to quit treatment. They gave me a cream and bandage that really helped – called Neosporin and Carradres bandages.



The Carradres bandages – were cool and soothing and really helped me the last 2 ½ weeks of radiation treatment, and continued to help me during recovery after my radiation treatments were complete. You put a copious amount of Neosporin on your neck, then peel 3 Carradres bandages out of the packages and put 2 ½ to 3 of them to cover the neck, then gauze over it and tape the gauze to hold everything in place. The Carradres bandages and gauze wanted to slip down, but I was careful to keep it in place the best I could with gauze, tape, and holding it in place. This helped get me through the final 2 ½ weeks of radiation treatment, and then I continued to do this for several weeks after radiation was completed. Of course, you had to clean the bandages and Neosporin all off about an hour before the radiation treatment each day. Your tissues as they are being radiated must be clean and dry. If they have gel on them while they are being radiated, it can make the radiation burns even worse. Ask your therapists. The University of Chicago radiation department gave these to me, a few at a time when they had extras. I kept asking. My wife helped me put on the Neosporin and Carradres bandages.



After the radiation was finished, and after the neck started to heal (several weeks after radiation was completed), then we switched to the Triple Antibiotic Ointment only – we put a lot of it on my neck and sometimes then gauze to cover that, though sometimes I did not need gauze. I did that for several more weeks until my neck skin was healing pretty well.

CONSTIPATION

Constipation is a BIG problem you may encounter. Your doctors and nurses will likely discuss it with you, but be sure you monitor this very carefully! The medications you will get during chemotherapy including anti-nausea medications like Zofran and Compazine, painkillers, etc, can cause constipation. Stay ahead of this! What worked for me may or may not work for you – different medications work better for some people than others, and everyone can have different side effects. For one thing, you want to drink plenty of fluids – the nurses told me to drink 2 to 3 quarts = 64 to 96 ounces of fluid per day to flush toxins & dead cells out of my body, and to help my kidneys.

Especially the first 2 to 3 days after infusion drink 3 quarts/day = 96 ounces/day. In addition, I used Senekot-S, MiraLAX, and Phillips Milk of Magnesia. I made a chart of when I took a constipation-causing medication, what days I had a bowel movement, and when I took a stool softener/laxative. In the chart to the right, S = one Senekot-S tablet, 2S = 2 Senekot-S tablets, M = MiraLAX. After taking Zofran or something else that might cause constipation, I began taking Senekot-S. I would start with 1 tablet in morning and 1 with dinner. If I went a couple days without a bowel movement, I would increase to two Senekot-S two or three times a day. I would also add MiraLAX. If I went three days without a bowel movement, I would take Phillips Milk of Magnesia, 30ml to 45ml at night, which always finally handled it for me. However, everyone is different, and you must see what works for you. Some people recommend you put Phillips Milk of Magnesia in 8 ounces of prune juice, stir it,

Date	Time	Medication	Bowel Movement
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heat it up in microwave, and drink that. Others recommend mineral oil in grape juice, heat it up, and drink that. See what works for you.

Colace laxative put 10 pounds of water weight on me within a couple days, making me feel very bloated and uncomfortable. So Colace had a bad side effect for me and I quit taking it.

If you need to resort to an enema, I have heard that glycerin-based (oil-based) enemas are better, but check with your doctor or nurse, and be careful of any allergies.

TASTE

The chemotherapy drugs can really play havoc with your taste. Some foods may just taste different during and after chemotherapy. Some may not have much taste anymore, like steak for me. Some foods may really zing you when you eat them, like strawberries, raspberries, and other citrus for me. Over time – several months or years, this gets better.

To help keep my taste as much as possible, Dr. Dennis Abbott, dental oncologist from the Dallas area, recommended I take Zinc Sulfate 50mg supplement tablets 3x/day during my chemotherapy. Check with your medical oncologist and radiation oncologist, as they may limit this. Dr Abbott said:

- Take it before I begin radiation therapy, and through radiation therapy, and for 30 days after radiation therapy.
- Take it 3x per day – morning, noon, and evening – take it with 8 ounces of water – this is what Dr. Dennis Abbott recommended to me, but he said to ask my doctors if that was OK. Note – my radiation oncologist only allowed me to take one Zinc Sulfate 50mg tablet per day, so I took it at bedtime with 8 oz water.
- Zinc Sulfate 50mg – get it on Amazon.com.
- Zinc Sulfate 220mg at local store probably has only 50mg effective dose, so this would be OK, too. Check the bottle to confirm it has 50mg effective dose.

DRY MOUTH

The radiation can destroy salivary glands, including your parotid gland which gives about 80% of your serous saliva, therefore leaving you with a dry mouth. This creates three BIG problems: 1) This makes it difficult to swallow “dry” food. 2) It allows cavity-causing and gum-disease-causing bacteria to collect on your teeth and gums since it is not washed away by saliva, and because you no longer have the antibacterial properties that are normally in your saliva. 3) It reduces the buffering capacity of saliva, which is essential for maintaining pH values in the mouth above a critical pH, thereby protecting teeth against demineralization and cavities. Bad bacteria best survive in an acidic oral environment, whereas good bacteria like a basic (alkaline) oral environment. As a result very bad cavities especially on the roots of the teeth, and gum disease, often occur.

Chemotherapy, immunotherapy, and many of the medications can all cause dry mouth.

Mouth breathing causes dry mouth. This can be mouth breathing during the day, or during the night, or both. If you wake up in the morning with a moist mouth you are probably nose breathing correctly, but if you wake up with a dry mouth, you are probably mouth breathing. Your mouth is for eating and speaking. Your nose is for breathing. If you routinely breathe through your mouth, it completely changes your body chemistry, and has many other deleterious effects, like changing the

way your face develops in young people, etc. Except when you are eating or speaking, [proper rest position](#) is lips together, entire tongue resting on the roof of your mouth, breathe through your nose.

- Short introductory videos about this are on my website www.OralSystemicLink.net under the category headings “Orofacial Myology” and “Airway/Breathing.”
- Saline nasal spray used routinely can help keep nasal passages healthy and open. “Xlear Saline Nasal Spray with Xylitol” is the product I use and feel is best. There are many others.

Some of the things I found helpful for dry mouth are:

- Water – keep a bottle of tap water with you to sip on, and/or ice chips. Tap water has fluoride in it to help prevent cavities.
- Sauce on meat like pork chops, steak, etc.
- Xylitol gum and mints – Spry is one company.
- XyliMelts (over the counter) – they stick to your gum under your lip and can set there several hours during the night releasing xylitol.
 - Are 100% xylitol; a 5-carbon sugar, so will not cause decay. 6-carbon sugars cause decay.
 - Has a bio-adhesive property on the back side when you get it wet; so you can put it in your mouth at night in the vestibule (cheek) up behind the upper cuspids or molars - it will stay there & not move. Put the sticky side against the gums, not the cheek.
 - Xylitol is hydrophilic so it promotes a nice moist feeling in the mouth; so it helps you sleep better and not wake up so much with discomfort from dry mouth.
 - Use one XyliMelt. If needed you can use two XyliMelts.
- Stella Life products.
- Biotene products.
- GC America also has a Dry Mouth Gel that I have not tried, but I know it is a good company.
- Other products for dry mouth can be found online. None of them are a great substitute for your own saliva, but you just have to do the best you can.



Two medications that Dr. Dennis Abbott told me about, but I did not use myself are:

- Gelclair® Mouth/Throat Gel – use 3x/day or as needed.
 - Is a prescription medication for oral mucositis treatment and prevention.
 - Gelclair® has a mechanical action indicated for the management of pain and relief of pain by adhering to the mucosal surface of the mouth, soothing oral lesions of various etiologies, including oral mucositis/stomatitis, which may be caused by chemotherapy or radiation therapy, oral surgery, etc.
 - Is a gel that you mix with 1 to 3 tablespoons of water – open the packet and put contents into water; swish with half for 1 minute and spit it out; then use the other half – swish for one minute and spit it out.
 - Do not eat for at least one hour after using Gelclair.
 - Start the Gelclair as soon as you start the chemotherapy/immunotherapy.
 - Dunn Meadow Pharmacy 844-262-8200; 1555 Center Ave, Ft Lee, NJ 07024-4612.
- Aquoral (formerly called 3M Xerostomia Relief Spray)
 - Is a prescription medication for dry mouth.
 - Aquoral is now available through K Pharmaceuticals at <https://aquoralspray.com>.

Jo-Anne Jones, RDH, a well-known speaker on oral cancer, stated to me:

- Aquoral at <https://aquoralspray.com> with its lipid base has made a tangible difference for many people (formerly called 3M Xerostomia Relief Spray). info@kpharmaceutical.com
- Allday Dry Mouth Gel, and Spray, from Elevate Oral Care, <https://www.elevateoralcare.com/products/Allday> uses a special mucoadhesive hydrogel and maximum xylitol concentration to relieve dry mouth symptoms. Jo-Anne states she uses it before speaking sometimes to combat dry mouth. The gel provides a more protective lubricating feel than other products she has tried.
- Gengigel, a hyaluronic acid product, increases tensile strength of mucosa and forms a protective barrier. It is at <https://www.oralscience.com/en/products/gengigel>.
- Also plain old Coconut Oil has had many positive reviews.

<https://sideeffectsupport.com> is an excellent website that has products, information, and resources specifically designed to help maintain the oral health and comfort of those being treated for cancer.

In post-radiation cancer patients, to fight the bacteria that cause bad decay and gum disease, and to help strengthen the teeth against cavities, we STRONGLY recommend fluoride gel in custom fluoride trays – made by your dentist in the dental office. In our office we use the Biostar machine.

- Start this any time BEFORE head & neck radiation. Do this forever, especially if you have dry mouth.
- Fluoride trays – these are custom suck down trays made in a dental office for proper fit from models of your teeth.
- Note to dentists - we use a Biostar machine and soft EVA .040 (1mm thick), but 2mm will work as well, as long as it is soft material. They must cover the Class V areas, but not be long onto the gingiva or you won't be able to tolerate them – the gums will be exquisitely sore during tx. Trim them TO the gingival margin on the buccal and lingual, not short and not long. Don't scallop them, go straight across.
- Colgate PreviDent 5000 Booster Plus Formula (NOT sensitive formula or xerostomia formula) is the fluoride to use. It is 1.1% sodium fluoride – use this in the trays, just enough to be sure it covers all the teeth. You can get it at the store or online; a prescription is required.
- Flavor – get fruitastic; do not get spearmint – it has too much taste; you want it bland during radiation treatment. After cancer treatment you can use the flavor of your choice.
- 10 to 15 minutes per day; best is at night before go to bed. SPIT IT OUT! DO NOT SWALLOW FLUORIDE! Then a minimal rinse, then go to bed.
- We see great results from this regarding decay prevention.
- One alternative is “MI Paste Plus” toothpaste from GC; use very mild bland flavor like vanilla; not cinnamon or mint. But fluoride is by far the best.



Oral probiotics can be very helpful to populate the mouth with good bacteria and fight the bad bacteria. This helps against cavities and gum disease. Examples are ProBiora, and Stella Life.



GC Saliva-Check BUFFER - after your cancer therapy, if you still have some saliva, you might have your dentist periodically check the pH and buffering capacity of your saliva to check its protection against cavities.



HOW I CARED FOR MY MOUTH DURING CANCER THERAPY

My Daily Standard Oral Hygiene Regimen DURING my chemo & radiation treatment:

- 3x/day, after each meal, clean teeth with tongue cleaner; dental floss; Waterpik (Aquarius model) with 8 drops household bleach in full well of water – which is about 20 ounces of water, or 600ml of water, or 2 ½ cups of water; brush with bland tasting fluoride toothpaste.
- Stella Life – per directions 3x/day preferably after meals and after cleaning my teeth – use all three products in sequence; do not swallow; refrain from eating or drinking for at least 20 minutes after use.
- Fluoride trays with Colgate PreviDent 5000 Booster Plus Formula – 15 minutes at night just before bed. THEN SPIT IT OUT! DO NOT SWALLOW FLUORIDE! Then a minimal rinse, then go to bed.
- XyliMelts (over the counter) - put it in mouth at night in vestibule (cheek) up behind the top teeth cuspids (eye teeth) or molars. Use one XyliMelt. If needed you can use two XyliMelts.

HOW I CARE FOR MY TEETH NOW AFTER CANCER THERAPY

My Daily Standard Oral Hygiene Regimen AFTER my chemo & radiation treatment, forever:

- 2 or 3x/day, after meals, clean teeth with tongue cleaner; dental floss; Waterpik (Aquarius model) with 8 drops household bleach in full well of water – which is about 20 ounces of water, or 600ml of water, or 2 ½ cups of water; then brush with fluoride toothpaste.
- Fluoride trays with Colgate PreviDent 5000 Booster Plus Formula – 15 minutes at night just before bed. THEN SPIT IT OUT! DO NOT SWALLOW FLUORIDE! Then a minimal rinse, then go to bed.
- Xylitol mints and gum (from Spry or other companies) – 5 to 8 grams of xylitol/day – take one gram at a time and space the 5 to 8 times (doses) throughout the day. Usually one mint is about a gram, and one piece of gum is about a gram. Mints – allow them to dissolve slowly in your mouth. Gum – chew it for at least 5 minutes.
- Xlear Saline Nasal Spray with Xylitol to help keep my nasal passages healthy and open. I use it a couple times during the day and just before bed. There are many saline nasal sprays, but I use this product and feel it is best.
- ProBiora oral probiotic - <https://probiorahealth.com>. Alternative – StellaLife recently came out with a combination oral probiotic/gut probiotic - <https://stellalife.com>.
- Mouth taping at night. I do this to help assure I breathe through my nose, not my mouth, so my mouth stays much more moist. I tape just the center of my mouth to remind myself to breathe through my nose, but I can still breathe through the corners of my mouth if I have to. I use 3M Micropore tape, 1 inch wide. You MUST be sure you can breathe through your nose before doing this. You must have a professional guide you with this. I recommend the first time a patient does this, that they tape an hour before going to bed so they know they can breathe through their nose and don't panic. Breathe Rite strips can also be helpful.
- Glass of tap water on my nightstand next to my bed – take a few sips each time I wake up during the night. Tap water has fluoride, which helps prevent cavities, whereas filtered or bottled water does not have the fluoride.



- I do not currently use a mouth rinse, but if I were to add this to my daily oral care regimen, I would add OraCare – <https://www.oracareproducts.com>.
- XyliMelts (over the counter) – I do not currently use these because I do have adequate saliva to keep my mouth moist. If I did not have adequate saliva due to radiation damage of my salivary glands, I would use XyliMelts - put it in mouth at night in vestibule (cheek) up behind the top teeth cuspids (eye teeth) or molars. Use one XyliMelt. If needed you can use two XyliMelts. Put the sticky side against the gums, not the cheek.

ORAL CARE PRODUCTS – XYLITOL, TOOTHPASTE, TOOTHBRUSHES, WATER FLOSSERS, & MUCH MORE

XyliMelts and xylitol mints and gum (from Spry or other companies) – this is good for dry mouth, but is also very good for helping prevent cavities and gum disease. To help prevent cavities and gum disease you need 5 to 8 grams of xylitol/day – take one gram at a time and space the 5 to 8 times (doses) throughout the day. Usually one mint is about a gram, and one piece of gum is about a gram. Mints – allow them to dissolve slowly in your mouth. Gum – chew it for at least 5 minutes.

Toothpaste - there are several good ones. Fluoride in your toothpaste is helpful in preventing cavities, and is especially helpful after radiation therapy. Be sure to spit rather than swallow so you do not ingest the fluoride. Some excellent toothpastes we recommend are:

- CariFree toothpaste and products are excellent for cavity prevention. I recommend them for many patients who are prone to developing cavities, and have seen great results <https://carifree.com>.
- GC MI Paste, and GC MI Paste Plus – are excellent toothpastes we often recommend for our patients <https://www.gc.dental/america/products/operator/preventive/gc-dry-mouth-gel>.
- Common Sense Teeth Powder – one of my colleagues who I greatly respect prefers and recommends this toothpaste to prevent cavities <https://tiads.com>.
- Fluoridex – you purchase through a dental office.
- Sensodyne Pronamel toothpaste.

Toothbrushes – we prefer, use, and recommend automatic toothbrushes. We feel they are superior to manual toothbrushes. Purchase a good one, not an inexpensive model. The two main brands that we recommend are:

- Philips Sonicare
- Oral B

Water flossers – there are a variety of companies and models. We recommend the Waterpik Aquarius water flosser. We recommend putting 6 to 8 drops household bleach in the full well of water to decrease the bacterial load in the mouth. A full well of water is about 20 ounces of water, or 600ml of water, or 2 ½ cups of water. We recommend using this 2 to 3 times per day, after meals, for life.



Tongue cleaners – for many years I have used a tongue cleaner two to three times per day, every time I clean my teeth, and I recommend my patients use them. Your tongue harbors a large amount of bacteria, so a comprehensive oral care regimen must include a tongue cleaner. There are many types, like Basic Concepts, Orabrush, Pureline, and others. I like the good quality metal tongue cleaners, but use whatever works for you.



Oral rinses/mouthwashes – we prefer non-alcohol mouth rinses. These may be used in addition to, but do not substitute for mechanically removing the bacteria with brushing, floss, Waterpik, etc.

There are many available:

- OraCare – activated chlorine dioxide and xylitol. This is excellent, and is available only through dental offices <https://www.oracareproducts.com>.
- CloSYS - <https://closys.com>.
- PeriActive – <https://www.getperiactive.com> – Dr. Jeffrey Hoos, a very good dentist friend, highly recommended this to me. However, I could not tolerate the taste during cancer therapy, so I could not use this, but after therapy it would be fine. Dr. Hoos said:
 - PeriActive – use it to help prevent and to heal mouth sores. PeriActive kills bacteria and builds the immune response of the cells.
 - Do the following twice per day: put your brush in it or take a little in your mouth; brush gums and inside lips and checks, then rinse/swish it around. Do not spit out – rather, do swallow the little bit that remains in your mouth. Then floss your teeth while your mouth is still wet with PeriActive. He said you do not need to brush or floss your teeth otherwise – just do it with PeriActive per the above instructions 2x/day. Then do not eat, drink, or rinse your mouth for 30 minutes after use.
 - He says ALL his patients are using PeriActive per the above instructions. He sees great periodontal (gums) improvement, faster wound healing from surgery, trauma, etc. If they do not like the taste, he tells them the benefits outweigh the bad taste, so he still recommends they use it.
 - Instructions on PeriActive bottle: “Rinse for 60 seconds with 15ml (3 tablespoons) twice a day. Do not eat, drink, or rinse your mouth for 30 minutes after use. Do not swallow. This rinse is not intended to replace brushing or flossing. Store at room temperature. Keep out of direct sunlight.”
- 3M Peridex 0.12% chlorhexidine gluconate – kills bacteria, but stains the teeth.
- Colgate PerioGard 0.12% chlorhexidine gluconate – similar to Peridex, but PerioGard is alcohol-free.

GC Tooth Mousse Plus with fluoride is a foamy crème, which helps to remineralize decayed teeth by replenishing lost calcium and phosphate, and restore subsurface areas of defect in enamel.

To clean dentures, partial dentures, oral sleep appliances, orthodontic appliances and retainers, fluoride trays, etc, we recommend:

- “Dr B’s Dental Solutions – Dental Appliance Kit” – it is the best I have seen, and is what I use and recommend to my patients.
<https://drbdentalsolutions.com/products/dental-appliance-kit>
- Polident and Efferdent are alternative products.



Interdental brushes – to clean in between the teeth, can be very helpful, especially in patients whose gums have receded some. Two companies that we recommend are:

- GUM interdental cleaners and brushes – <https://www.gumbrand.com>.
- TePe interdental cleaners and brushes – <https://www.tepeusa.com>.

“Perio Protect” is a hydrogen peroxide based medication in highly customized dental trays that fit over your teeth and gums. The custom trays push a hydrogen peroxide based gel deep down into the

gum pockets where toothbrushes, rinse, and floss cannot reach, killing many of the bad bacteria. We have used these many times with good success. Your dentist may recommend them. You get the trays custom made from the dental office. Perio Gel® that you put into the trays is an Over-The-Counter product that contains 1.7% Hydrogen Peroxide, which kills infectious bacteria and reduces inflammation in the gums. You can learn more at <https://www.perioprotect.com>.

Ozone therapy, including gas, water, and ozonated oils may also be helpful in preventing cavities and gum disease. Most dentists do not use ozone therapy at this time, but it appears to be increasing.

OTHER IMPORTANT HELPFUL TIPS

Peripheral neuropathy - is a possible side effect of chemotherapy. The University of Chicago told me to use ice on my fingers and toes to restrict blood flow to vessels during chemotherapy infusions, to help reduce the amount of chemotherapy drug that went there, and therefore the probability of peripheral neuropathy. Here is a picture during an infusion with my feet and hands in ice. This worked great for me all nine appointments of immunotherapy and chemotherapy. Then the nurses recommended I not use it during my very long chemotherapy appointments in phase two of my treatment, as that chemotherapy drug was not as prone to cause peripheral neuropathy. So I did not use the ice during phase two, and at the very end of therapy I did get peripheral neuropathy in my feet, and slightly in my fingers that continues today three years later. I wish I had continued to use the ice, as the peripheral neuropathy is a constant annoyance.



Leg & foot cramping - several aids may help such as Magnesium (including lotion), potassium, water, bananas, and electrolyte drinks like Gatorade and Pedialyte Sport. Things that really helped me were:

- “Muscle Recovery Lotion” is great to help prevent cramps! Apply it all over your feet and calves. You can get it at www.epsomit.com.
- During an acute cramp - stretch, massage, stand.
- To help prevent cramps - exercise, including walking, jogging, stationery exercise bike, elliptical, etc. Reduce the amount of sugar in my diet. Drink plenty of water.
- A bar Ivory soap or Irish Spring soap under the bedcovers at foot of bed helps many people.

Nutrition - your cancer center will probably have a nutritionist you can work with. Use them! Nutrition drinks like Ensure, Boost Very High Calorie drinks, Premier Protein Shake, Lean Body Protein Shake, Fairlife Core Power Protein Shake, or Quest Protein Shake can be very helpful during and after your therapy to help your nutrient and calorie intake.

Smoothie King high protein shakes may help soothe your throat and provide good nutrition.

Feeding tube – you may get a PEG feeding tube. If you do, one friend who is Board Certified in Family Medicine and Integrative Holistic Medicine told me that rather than Ensure, she strongly recommends the following companies:

- [Real Food Blends](#)
- [Kate Farms](#)

Do NOT sleep all day; keep moving. Exercise as much as you can comfortably. Stretch, yoga, stay active, but do not push yourself too hard. Even just walk for 5 minutes when you can.

Do neck stretches and jaw stretches daily. One stretch is to hold a broomstick in both hands and raise it above your shoulders to prevent atrophy of shoulders. Do all the exercises your cancer team recommends to stretch all tissues! Consider physical therapy if needed.

Yeast infections - if you get a yeast infection consider having your doctor prescribe:

- Yeast infection inside the mouth – use Clotrimazole Troches -10 mg each.
 - Rx 70 troches; let one dissolve in mouth 5x/day for 2 weeks.
 - Is for a yeast infection – may be whitish or erythema – sudden onset of burning mouth or alteration in taste. If sudden onset, it is likely a yeast infection. If slow onset, it may be an effect of radiation.
- Angular cheilitis at corners of mouth – use Monistat vaginal yeast cream, or Lotrimin Ultra.
 - Put the cream on the angular cheilitis at corner of mouth, and then cover it with a thin layer of Vaseline to waterproof it. Do this for a couple of weeks.

MRI scans – mine lasts 1 hour 40 minutes under the tube. It helps me to take 1.5mg of Lorazepam 40 minutes before I start my MRI. This calms me down, but does not put me to sleep.

My medical oncologist also told me that during my cancer treatment:

- Drink 2 to 3 quarts = 64 to 96 ounces fluid per day to flush toxins & dead cells out of body, and to help kidneys.
- Drink a lot of water; especially first 2 to 3 days after an infusion drink 3 quarts/day = 96 ounces/day of fluids.
- Ensure and similar nutrition drinks can be very helpful to keep your weight and nutrition up.
- Crystal Light sugar-free is a good drink alternative.
- Caffeine-free iced tea with a bit of lemonade is OK.
- Flush toilet twice each time for 48 hours after chemotherapy infusion appt.
- Zofran 8mg – they gave me before infusion to help prevent nausea; also they had me take 1 tab Zofran 8mg about 8:00pm the night of infusion; Zofran can cause constipation; take it and Compazine as needed for nausea or sick to stomach per the direction of your cancer team; do NOT take it more often.
- Senekot-S with breakfast and dinner; MiraLAX with dinner – can help with constipation.
- MiraLAX – drink another 8 ounces water over the next hour after you take MiraLAX.
- Avoid sunlight during my cancer therapy – wear sunglasses, sunscreen 50 SPF or higher. After my radiation therapy, the skin on my face and neck that was radiated will be more sensitive to sunlight forever, so continue to use sunscreen 50 SPF or higher.
- Taste can start coming back in about a month after cancer treatment is completed.
- Saliva may/may not come back some over a year after cancer treatment is completed.

A local oral surgeon friend of mine told me:

- Tap water with 1ppm FL, vs. filtered water that filters out the fluoride – he recommends drinking tap water with fluoride and fill a bottle and sip on it all day. The fluoride helps prevent cavities.
- XyliMelts and/or Spry xylitol mints and gum – take 7 to 8 grams of xylitol/day – one gram at a time, spaced evenly throughout the day - this really helps a lot.

- After radiation treatment, schedule checkups in the dental office every 1 to 3 months to get teeth cleaned, check for decay, etc, because you are much more prone to getting cavities.
- “Gray” is a unit of radiation. Less than 50 Gray exposure of radiation to an area of bone is not as bad for bone. More than 50 Gray exposure of radiation to an area of bone affects that bone long term. If you have a tooth extracted in an area of bone that had more than 50 Gray exposure of radiation it can be a big problem requiring extra care by the oral surgeon.

Bad bacteria in your mouth tend to thrive in an acidic environment, whereas good bacteria tend to thrive in a slightly alkaline (basic) environment. A dentist friend told me, therefore, he recommends:

- Drink lots of alkaline water.
- No Soda or other acidic drinks.
- [pH test](#) your mouth regularly to make sure you are shifting from an acidic pH to neutral or basic oral pH. There are several inexpensive options for oral pH test strips found online.

PREVENTING HEART ATTACKS, STROKES, AND ALZHEIMER’S DISEASE

Cardiovascular disease (heart attack, stroke, etc) is the #1 cause of death, and cancer is #2. Also “More than one in ten cancer patients do not die from their cancer but from heart and blood vessel problems instead,” according to new research published in the *European Heart Journal* on 11/25/19. It appears to depend on the type of cancer. The author, Dr Sturgeon concluded: “We hope these findings will increase awareness in patients, primary care physicians, oncologists and cardiologists as to the risk of cardiovascular disease among cancer patients and the need for earlier, more aggressive and better coordinated cardiovascular care.”

The better your overall health before, during, and after cancer, the better you will be able to survive. My father and his brothers died from heart attacks and strokes, so I do my best to prevent cardiovascular disease. Since 2011, I have been a patient of the “Prevention Center for Heart and Brain Health” <https://preventioncenter.health>. Dr. Brad Bale and Amy Doneen developed the BaleDoneen Method for preventing heart attacks, strokes, Alzheimer’s, and other cardiovascular disease sequelae <https://baledoneen.com>. This is highly successful and is the best method I have seen for cardiovascular disease PREVENTION. We have great doctors and hospitals for TREATING heart attacks and strokes after they happen, but the BaleDoneen Method is the best I have seen for PREVENTING cardiovascular disease. I have referred many patients to them, and they have all been grateful for my referral. Dr Brad Bale and Amy Doneen have taught the BaleDoneen Method to many healthcare providers in the United States and other countries, and I continue to hear excellent results for the patients they treat.

GOOD DENTAL HEALTH is very important to the BaleDoneen Method of preventing heart attacks, strokes, and Alzheimer’s disease. This may surprise you: Atherosclerosis (the buildup of fats, cholesterol and other substances in and on the artery walls) often begins with inflammation and disease in your mouth. Gum disease, dental plaque and dental infections can serve as a breeding ground for harmful bacteria, which can enter your bloodstream, trigger systemic inflammation and contribute to the development of silent, deadly, detectable and reversible arterial inflammation leading to stroke, heart attack and dementia. The BaleDoneen Method asks your dentist to screen for:

- Radiographs, preferably 3D Cone Beam radiography, to find any abscessed teeth.
- Accurate assessment of your gums to include periodontal probing and bleeding charting.
- Salivary bacterial testing to test for the oral pathogenic bacteria named Aa, Pg, Td, Tf, and Fn (Direct Diagnostics, OralDNA, or similar - swish and spit).

- Screen for Upper Airway Resistance Syndrome (UARS), and Obstructive Sleep Apnea (OSA) if the dentist is trained in this.

Then the BaleDoneen Method asks the dentist to treat:

- Any abscessed teeth.
- Gum disease, especially eliminating the five major pathogenic bacteria Aa, Pg, Td, Tf, and Fn. By eliminating or significantly reducing these you also reduce many other pathogens in your mouth.
- Help the physicians in the treatment of Upper Airway Resistance Syndrome (UARS) and Obstructive Sleep Apnea (OSA) if the dentist is trained in this.

FOCUS

During your cancer treatment, especially during the long uncomfortable nights, focus on the present, the here and now: one hour at a time, one minute at a time, one breath at a time.

Focus on the breath: breathe in correctly – slowly through the nose using your diaphragm (belly breathing), not your chest. Then breathe out through your nose slowly. Keep your mouth closed naturally with your lips together. Repeat, repeat, repeat. You can learn correct breathing from Patrick McKeown at <https://buteykoclinic.com>. I have several short videos about this by Patrick McKeown on my website <https://OralSystemicLink.net> – click on “Patients,” then “Airway/Breathing,” then “View Post.”

To get through the radiation treatment when I was locked down to the table, to get through the many long nights that I laid awake, and to get through my 1 hour 40 minute MRI scans where I had to lay still under the tube, I would focus on these words: “Jesus, help me. Jesus, be with me. Give me peace, oh Lord.” First breath: “Jesus, help me.” Second breath: “Jesus, be with me.” Third breath: “Give me peace, oh Lord.” Repeat, repeat, repeat, sometimes for hours at a time. This helped me so much.



SEQUELAE AFTER CANCER THERAPY

The chemotherapy attacks your good cells as well as the cancer cells. It can attack different areas of your body and cause pain or other problems.

During cancer therapy, I got an inguinal hernia. I had never had one before. It continued to pop out over time and three years after my cancer therapy I had surgery to repair it.

Two years after my radiation therapy I got a basal cell carcinoma of the lobule (bottom part) of my left ear and needed surgery to remove it. A year later, I got a basal cell carcinoma on the left side of my face and needed surgery to remove it. These were both in the area of my cancer radiation. I never had a basal cell carcinoma until after my radiation therapy for my cancer.



You may be physically weaker after cancer therapy. I began the process of building my health and strength back after my cancer therapy. I did a lot of walking. I worked on my nutrition and my sleep. I had some chiropractic appointments to get re-aligned. I got a personal trainer two days per week to help with my strength and flexibility. I also exercised several days each week in my small home gym.

Dental care – cancer and its therapy can affect your saliva, teeth, and gums. During cancer therapy, if you have any dental concerns work with your dentist and cancer doctors. After cancer therapy, you will need to be very diligent and meticulous with your dental care at home, and you will need to have more frequent dental cleanings and checkups at the dental office. DO NOT neglect this, or you can get into bad dental trouble that is difficult to treat – both for the dentist and for the patient.

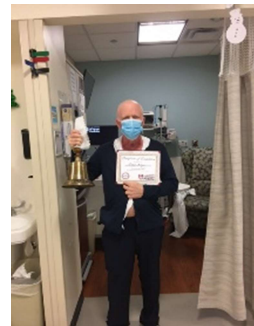
GRATITUDE

Be grateful: I was so lucky! God was so good to me! Many things could have gone wrong that did not – lungs, kidney, liver, eyes, hearing, etc. Sure, I have some side effects like peripheral neuropathy in my feet, a hernia, basal cell carcinomas from radiation treatments, changes in taste, etc, but it could have been so much worse.

Thank you to all the doctors, pioneers, researchers, clinicians, entrepreneurs, and people who have committed their time and money to take us this far in the diagnosis and treatment of cancer.

Thank you to all the patients who have been treated before us, and to those who have been in trials and helped the doctors study and improve their diagnosis and treatment.

We all have thousands of blessings to be so grateful for, but so many times, we focus on the one or two things that are going wrong or that we lost. Keep focused on the thousands of blessings the good Lord has given you.



MY SON'S STAGE 4 KIDNEY CANCER

Nine days after I got home from my cancer treatment, as I was still getting worse from the toxins in my body, my 41-year-old son broke his arm. Within a couple weeks, it was diagnosed as stage 4 metastatic kidney cancer that broke his arm. Isn't that shocking – the first sign of his kidney cancer was a broken arm – it had already metastasized to many areas of his body. He came to live with my wife and me, and I was with him through it all: broken arm, cancer diagnosis, arm surgery, broken rib, and first round of immunotherapy and chemotherapy for 4 months that did not work at all. Then his cancer completely ate away two vertebra and he was in so much pain and was so medicated he did not know who or where he was. The local neurosurgeon said it was inoperable and he must live this way, so we went to a different cancer center and they did vertebra replacement surgery. He had rehab, a long painful recovery, then shingles, then large foot sores on both feet so he could not even get out of bed to walk. Then he had medication problems and he went from 170 pounds down to 112 pounds. They attempted to place a feeding tube but the surgery failed and they could not try again. The doctors said he was past help and to contact hospice because it may not be much longer, but thanks to a local oncologist, he got back up to 147 pounds. Several months later he passed away in August 2022, twenty months after his diagnosis. His pain was ten times worse than I had during my cancer. We cherished the 20 months we were able to be with him.



THE 3 MAIN THINGS WE HAVE LEARNED

1. “Be your own health advocate.” Always stay as healthy as you can, so that you have better quality of life and longevity, and so if you have a health crisis your body is better prepared to deal with it. Nearly all healthcare providers are extremely caring and wonderful people, but just as in every occupation, some doctors are better than others. In addition, there is so much information that no one can possibly know everything, not even the best doctors. Doctors and nurses are very busy and things do get overlooked. If something does not sound right or is not going right, think, ask, and search until it does sound right and is going right. There may be a better answer.
2. Prayers and support from your family, friends, and anyone else is SO important. Openly seek and receive their prayers and support. Freely give your prayers and support to those in need.
3. All this was a blessing in disguise:
 - It brought us so much closer to our God – and that is really THE ONLY THING THAT MATTERS.
 - The ONE THING we need in this very short and fragile life is to be with our Lord and Savior Jesus Christ all day every day, so we can then be with Him “all day every day” for all eternity. And help other people do the same. Period!
 - I believe you do that by believing in God and trying always to do His will, not your own will. Live by the two main commandments: 1) Love God with your whole heart, your whole soul, and your whole mind; and 2) Love your neighbor as yourself. Be baptized. Follow the Ten Commandments and the Beatitudes. Try to be more like Jesus. Be grateful for the thousands of gifts God has given you (which is EVERYTHING you have), and do not bemoan the few things He has not given you or has taken back to Himself (like my son). Make Jesus your best friend. In every situation, ask yourself “What would Jesus do?” Then do that. Keep it simple. Help others do the same.
 - To be able to love God best you should know Him, and the best way to know Him is to read and study the Bible. I suggest that you get a good Bible that is easy to read and that explains things very well. Read a little in the Bible every day. The Bible I like and study is the NIV, Life Application Study Bible, Third Edition, Red Letter (Jesus’ words are in red letters) Large Print, Leathersoft cover. I have purchased and given these to many people. “Pay it forward.” Catholics also want to purchase a Catholic Bible to study the seven books that are not in Protestant Bibles.
 - www.OralSystemicLink.net - on the Home Page of that site as you scroll down you can see this Head & Neck Cancer Insights article, as well as a 13-minute video interview I did with the famous cardiac surgeon Dr. Lloyd Rudy on life after death (it is the second of the two videos on the Dr. Lloyd Rudy post). It relates the story of a patient who died during cardiac surgery, came back to life 25 minutes later, and what the patient told his doctors and nurses he saw while he was “dead”. This video has over 1.6 million views on YouTube. It is translated into many languages, is on numerous other websites, and is discussed in several books.
 - I go to church service almost every day, probably 13 days out of every 14. I never considered this, never even knew this was possible. Then at my Uncle Bob’s funeral, his eldest son said Uncle Bob attended church service every day. Wow! Now I start every day with Jesus!

Dr. Mike Milligan earned his Bachelor of Science in Biology from the University of Houston. He has won 138 amateur golf events including the Illinois State Amateur, Illinois State Match Play, and Butler National Amateur. Dr. Milligan graduated first in his class from Southern Illinois University School of Dental Medicine in 1978. He is a general dentist in Illinois. He is a founding member, past board member, and past president of the American Academy for Oral & Systemic Health – the #1 organization in the world for bringing together physicians, dentists, and allied healthcare professionals for the better overall health of their patients. He is founder and president of www.OralSystemicLink.net, “Saving Lives through Oral-Systemic Health.” Dr. Milligan has authored articles, contributed to articles, and/or lectured on many dental topics to groups nationwide including Excellence in Dentistry, the Crown Council, 1000 Gems, Kisco Dental, The Richards Report, the Madow Brothers Monthly, Dental Equipment and Materials, Dental Economics, the American Academy for Oral Systemic Health, and others.

