Diagnosis Prostate Cancer:
An Interview with Dr. Michael Holick and Carole Baggerly

(Actual Start at 0:00:13)
0:02:33.6 Carole: Welcome to one of our fantastic interviews with Dr Michael Holick. Dr. Holick today is gonna talk with us about prostate cancer and what he's done about it. Obviously, he's got it. So we need to know more about how he has been working with it and any advice he has for those that could benefit. So Dr. Holick, why don't you kick it off.

0:03:03.8 MH: Thank you very much Carole. So first I'll give a little bit of perspective and then I'll share with you my journey and explain to your audience how to deal with the devastation of this cancer and the consequences of the treatment. But the most important message I think is, one in six men will get prostate cancer in their lifetime. It's estimated probably by the age of 80 every male will have some evidence for prostate cancer. 15% of men with prostate cancer will have the most devastating form based on what's called a Gleason score. And so what typically happens is, and I encourage all men, even by the age of 50, that they should be getting a routine yearly PSA, Prostate-Specific Antigen, because it's very stable and only if it begins to rise, you begin to worry that this could be due to prostate cancer.

0:04:14.7 MH: And so it's the best method to identify it early and intervene early because if you don't intervene early you'll have the consequences that I am now undergoing. So to begin, basically it was November of 2021. I had already Celebrated my 75th birthday. I was extremely happy, active, cycling 35 miles on the weekends, have gardening and then all of a sudden I went to my primary care doc and my father had prostate cancer, the benign form. And so I knew that I should be careful about this. But then COVID hit. Normally I was seeing my PCP every year getting my PSA and it's always been rock stable. So when COVID hit and I missed that appointment because it wasn't available I must admit I just didn't think immediately as soon as he was available again to get it done. And so it took a year and a half. In that time it turned out my PSA went from 2 up to 13.

0:05:28.1 MH: Now you would think that's not really a big deal. And indeed my good friend is a urologist. And he said to me after evaluating me and my prostate because normally if you have prostate cancer and you do a prostate exam you can feel kind of bumps on the prostate. But men also as they age their prostate gland hypertrophies, it gets bigger. And when it gets bigger, it makes more PSA. So after evaluating me, he said, "Holick, I don't think you have anything to worry about. You know it's a little bit bigger. You most likely have hypertrophy and the PSA totally explains it but let's do biopsy just to be sure." And so 22 biopsies were taken and all of them basically were involved.

0:06:22.5 Carole: Oh my God. Why so many?

0:06:23.2 MH: Why so many? Because you wanna really pick all of the areas on the gland because you don't wanna miss anything. What's ideal is that for men whose PSA is beginning to rise they should get this biopsy because if they only find a tiny amount in one little area, you can radiate that area. There's all kinds of things that can be done. It's called stage one prostate cancer. But if you let it go, this is a true monster in your body and it will eat you alive. And what they do is when they

take the biopsy, they look at the cancer cells and they wanna see are they kind of slowly growing or are they super aggressive, what's called anaplastic. And those that are anaplastic, grow like crazy.

0:07:17.8 MH: So I have a Gleason score of nine. The highest is 10 meaning that it's the most aggressive in the sense that it will continue to grow in your prostate, take over your prostate gland and then begin to move out. And it desires to be everywhere in your body, especially in your bone. So after having the biopsies, my urologist called me back frantic telling me that, yeah, not only do I have prostate cancer but it's Gleason score nine and that almost all the biopsies were positive. So immediately I had an MRI to find out where the cancer was in my prostate and was it extending out. And sure enough, it was already growing out into the nerve bundle. So by definition stage one and two, the prostate cancer is within the gland and so having surgery for example can be curable. But stage three, now it's extended out and you have no idea where it's gone.

0:08:31.4 Carole: Wow.

0:08:31.5 MH: And so I then had what's called a PET scan. And what a PET scan does is it can light up any area of increased activity. So they looked at my lymph nodes and they looked at the whole area and happily they did not see anything in my bones and did not see anything in my lymph nodes. It doesn't mean that it's not there but at least it wasn't there in any significant way. So then of course, you have to figure out what to do. So I'm a doc, I'm an endocrinologist and I've seen lots of patients with prostate cancer. And so now I'm a patient. And...

[laughter]

0:09:14.6 Carole: That must be a really unique experience.

0:09:18.9 MH: Right, it is. And so the first thing is to get the diagnosis. I mean when you hear for the first time that you have cancer even if it's a more benign cancer, your whole life just kind of, at least for me, stopped and I began to realize that I'm mortal, right? And this monster inside me wants me. And so I'm gonna do everything in my power to prevent that monster from really destroying my body. I knew what was coming next. So I immediately got to see a surgeon because that's an option is to have your prostate gland taken out. The thinking being that if you debulk the area so you take out the prostate, so most of the cancer is gone but we know that it's already extended out and we don't know where. And so you can definitely have that. And it was suggested to me that typically they don't do that over the age of about 70 years but they saw that I was very vigorous and healthy. So they said they would definitely consider surgery for me. And then I met my oncologist.

0:10:34.1 Carole: What does it mean that they don't do that over the age of 70 or so? Tell me what is going on there.

0:10:40.4 MH: Well, what's going on here is that often by this time men can have respiratory issues, they may have more serious complications from the surgery than what the surgery is worth.

0:10:54.0 Carole: Oh okay.

0:10:54.6 MH: And so and that they have a much harder time recovering. And they have severe incontinence and a lot of other issues including severe erectile dysfunction. So as a result typically they don't do surgery after 70 years but they were willing to do it for me. And then I met my

oncologist. And what was really amazing and she was my good friend at Boston Medical Center, as soon as I entered her office she looks at me and she says, "Holick, this is curable." Now I was pretty sure that it's not, okay? But to hear that was just such a relief, right? And then I met and then I went over to Dana-Farber because I was a Boston medical center doc so it was probably not appropriate to be at my medical center. And I went to Dana-Farber which is a superb cancer center. And Alicia Morgans is my oncologist. And it turns out that she's published in this area.

0:12:04.3 MH: And she of course provided me with all the literature on what the consequences are of the surgery when you have stage three and the medication that you're gonna be on. I already knew that since it was not contained within my prostate, if they took my prostate out, I'm still gonna have cancer in the nerve bundle and maybe in my lymph nodes. So even if they took it out, I would still have to get radiation therapy and chemotherapy. So I decided that to me what made the most sense is to go the route of having androgen deprivation therapy which I'll explain in a minute along with radiation therapy and then what we call brachytherapy. B-R-A-C-H-Y therapy. And I'll explain in a minute a little bit about this. And by the way for your listeners if you want more information on my Facebook just Dr. Michael Holick. I'm now sharing my journey from the day I received this diagnosis and how I've been dealing with all of the issues.

0:13:19.8 MH: And so I'm right now at the chapter 15 and chapter 16 will be on probably by tomorrow. And so I knew I'm in trouble because I knew that what's gonna happen is they're gonna put me on medications that prevent me from making testosterone. And my oncologist told me and I knew what the consequence was because I had seen a lot of men with prostate cancer to help them for their bone health which we can talk about a little while later and what the consequences are of having no testosterone. Because I'm an endocrinologist. I saw a lot of men with hypogonadism, right? Low testosterone. Well, when you have no testosterone your muscles begin to just become flabby. You become very kind of weak. You wind up becoming listless, meaning that you really just get up in the morning and you really don't wanna do anything.

0:14:21.6 MH: You wanna become a couch potato. Basically it changes your body habitus so that you wind up with a big fat belly. You wind up with gynecomastia, so that you actually develop breast. But for a male there's something else that happens which is absolutely devastating. And I was told this but I already knew the answer which was, "Holick, when you're on androgen deprivation therapy," meaning you have no ability to make testosterone or androgens in your adrenal glands and I'll explain some of the medications for this in a minute is that your testes will become pea-sized by the time you complete your treatment. No male wants to hear that. And that there's a good chance that your penis is gonna shrink in size. Again not something any male wants to hear about and of course severe erectile dysfunction. So January 1, 2022 as I'm gonna be seeing my oncologist in two weeks I immediately start to intervene. 'Cause when you have no testosterone you don't just wake up one day fat and flabby, right? That happens over time. And so I decided to intervene and I intervened by making my New Year's resolution for 2023 is to walk five miles every day and to increase my personal training, weight training, from once a week to twice a week.

0:16:11.9 MH: And then I wound up seeing my oncologist and gave me Lupron. Lupron is a drug that actually initially stimulates the brain to make FSH and LH to actually increase the production of testosterone. But when it's around for a long time, it was learned a long time ago, that Lupron will then cause the brain basically, your hypothalamus to say I've seen enough of you and I don't wanna see any more of you. And so as a result you become resistant to its positive effect and now it has a negative effect and it shuts down the ability of your pituitary gland to make follicle

stimulating hormone and luteinizing hormone. These are hormones that are critically important for maintaining estrogen production in women and testosterone production in men. But my oncologist told me that something else you have to be concerned about which is that your adrenal glands which make cortisol, that if you get stressed you make more cortisol to help make you feel better, it gets your liver to make some released glucose and it keeps you going saying that you can't have your adrenal glands making androgens because it'll feed your prostate cancer cells in your body. And so they put me on a medication called Abiraterone. And this medication is supposed to directly inhibit androgen production in your adrenal glands but not have any effects...

0:18:17.8 MH: So effect androgen production in your adrenal glands but have no effect on cortisol production. So it sounds like an ideal drug. And so they put me on it. And so now a couple of months later, by 3, 4 o'clock in the afternoon I was really feeling excessively tired. They had put me automatically on prednisone, 5mg in the morning, presumably because they said, well, if it has any effect on your cortisol, that this will take care of it. Well, being an endocrinologist, typically if you wanna check your adrenal function what you need to do is to get an 8:00 AM cortisol. The reason being that the body wakes you up at around 3, 4 o'clock in the morning your pituitary gland starts making adrenocorticotropic hormone. It goes to your adrenal glands to now make cortisol so that when you wake up in the morning you're raring to go. Your tank is full and you're ready to go. And I was feeling so exhausted in the afternoon and I realized that prednisone when you take it in the morning like at 5:00 in the morning or some time up early, it has a half-life of three to four hours. So by the time you reach you 5 o'clock in the afternoon, you have zero ability. You have no adrenal function. And so I realized, I was not assuming, that I was adrenally insufficient.

0:20:02.1 MH: And so that was a major complication. So I went on 2.5mg of prednisone in the afternoon. Being a doc, knowing that, because that's how you treat, Addison's disease, what president Kennedy had, is it's 10mg of hydrocortisone in the morning and 5mg in the afternoon. The problem is this medication causes insulin resistance, wound up with Type II diabetes. Alright. So now they said that we have to give you radiation therapy, but we want your prostate gland to shrink by about 50% and it should do so being on Abiraterone and on Lupron. And so they waited three months and initiated radiation therapy. It's what's called image guided radiation therapy, which is really important. And I underwent 28 treatments. So I would go every day, five days a week. Now, the problem with radiation therapy and they give you this long list of complications, is that it can cause gastrointestinal bleeding.

0:21:21.3 MH: It can cause GI upset and pain in your colon. It can affect the peroneal area because it could burn your skin potentially. And so what they do is they put you on what's called MiraLax, which I think people who have constipation know it well, it's a resin. And I had to take two tablespoons a day in like 16 ounces of water. And what it does is that it stays in your colon and it absorbs water so that it makes the stool very loose. And that's important because you wanna evacuate and have your colon flat as you're beginning to get irradiated. The second point is...

0:22:16.6 Carole: Michael, I would like to interject something here.

0:22:26.3 MH: Sure.

0:22:26.4 Carole: And you can set it aside for discussion later. But one of the things that you mentioned way early on was they, excuse me, they don't do the surgery with people over 70 way up at the beginning of your talk, right?

0:22:40.6 MH: Yep.

0:22:41.1 Carole: Leo, my husband is 95. Okay.

0:22:45.4 MH: And?

0:22:46.4 Carole: And much of what you have done has been prescribed to him without the knowledge base. I mean, he's a brilliant man, but he does not have endocrinology knowledge nor does he have doctors like that. And there are some really big side effects of therapeutic things he's been on. And the thing that just totally grabbed me was about the muscles.

0:23:20.7 MH: Yep.

0:23:21.7 Carole: We had a very reasonably active, physically active man who went from being quite active to almost not being able to get up out of a chair.

0:23:32.7 MH: Right.

0:23:33.1 Carole: And except for physical therapy treatment, there really was not any mention one way or another of the drugs that this man was taking affecting his muscles.

0:23:46.0 MH: Wow.

0:23:46.8 Carole: So I am wanting to incorporate some, maybe they don't generally do these things with people over 70, but it's possible in some cases they do. And these need to be looked at, kind of like in parallel to see, well, if you're 90 and have this done, what are the possibilities? Because people are living longer and people are reasonably healthy. And anyway, so thank you for listening to this part, but I really appreciate your talk and I want to interject some pictures or something of side effects of very different ages.

0:24:30.1 MH: Yeah. But these side effects will affect a 50-year-old, just like a 90-year-old.

0:24:38.4 Carole: Yeah.

0:24:38.9 MH: And like I said, what I did, because just thinking, is you don't wake up one day hypogonadal and having no muscle function.

0:24:47.6 Carole: Oh yeah.

0:24:49.1 MH: And so if you use it, you won't lose it. And that's why I was so aggressive in intervening and walking every day at least five miles every day and lifting weights, twice a week.

0:25:03.8 Carole: But you knew to do that.

0:25:07.9 MH: Right, exactly.

0:25:08.8 Carole: You knew to do that. And my husband did not know to do that.

0:25:10.7 MH: Right. And nor was told to do that.

0:25:13.9 Carole: Right.

0:25:14.8 MH: This is all because of my thinking and my experience in this area.

0:25:21.2 Carole: Fantastic. Carry on.

[laughter]

0:25:23.3 MH: Yeah. So, now I'm getting radiation therapy. And so the other issue is that, the radiation's gonna hit your bladder and so it can cause bladder bleeding and cause all kinds of problems. And so what they recommend you do is that you have to drink 16 ounces of water before radiation therapy because you would think if you drank a lot of water that your bladder would go down. No, it goes up. And so it gets out of the space where the radiation's hitting your lymph nodes and your prostate gland. So now I decided, okay, I'm gonna now walk minimum five up to 10 miles before I got my radiation therapy. So I got in there at around 4:30, 5 o'clock in the morning and I walked for about two and a half to three hours and then immediately evacuated because I have now all of that MiraLax and soft stool. And walking so much stimulates your colon. And so it was really effective. And so I totally collapsed my colon. I drank 32 ounces of water to be sure that I was totally hydrated. And so five days a week, 28 sessions, every week they would stop at the end of my session and say, "So how are you feeling? Are you having any gastrointestinal bleeding? Are you having any pains?" And I said, "I've been feeling fine."

0:26:56.9 MH: And so after my 28th session, they sat me down again and asked me the same questions. And so then I said to them, "I've not had any side effects." I said, "Are you sure you turned the machine on?" And they said, "Oh, don't you know, your insurance company doesn't cover that. You have to pay extra." [chuckle] But the message is I just won't let that monster in me ruin me and you have to intervene at every level. So now I knew the next thing that's up is what's called brachytherapy. And what brachytherapy is, and this is done for both breast cancer patients and other cancer patients and prostate cancer patients, is what they do is that they will put these little tubes into your prostate gland and then they put in super high radioactive material and keep it there for about 10 minutes to blast your prostate so that if there were any cells left, because cells that are rapidly growing are more sensitive to radiation, that is the concept.

0:28:16.4 MH: And if you go back and look at the literature, which I read very carefully by the radiologist, by the radio oncologist, that was my doc, is that brachytherapy with less radiation therapy was more effective in five-year survival than having 35 or 40 radiation therapies. And so that was why I went along with it and again, I prepared myself for this and again, had no complications from it. Alright. So now I have diabetes and typically, normally I've never had diabetes, but it's a strong family history. And so I'm on the two doses, 5mg in the morning, 2.5 in the afternoon. I knew I couldn't stay on it, so I had to stop. And then I weighed 164 pounds, which is not that much, I guess for me, 5'10". But I knew I had to lose weight. I knew that I had to just absolutely remove cakes and muffins and everything from my diet.

0:29:25.4 Carole: Oh, those great things?

0:29:27.6 MH: Yeah. And I did it instantly, you just have to be focused. And I did, I immediately stopped and I wound up, instead of having lunch with some kind of a sandwich or whatever, is only wild caught smoked salmon with a... Yeah. And within about three months I lost 10 pounds and my diabetes no longer exists, so I no longer have diabetes. Okay. So now the new problem arises, which is that I was concerned that now that I've had these treatments and the Lupron is going to continue for up to two years. And I was told, and I knew it, is that if you've been on Lupron for that longer time and your brain has been shut off with that much time, it can take years if ever for your testosterone to come back. Again, no one wants to hear that. So it turns out that Lupron, when they inject it into you and it lasts for three months, it's really in your body for a much longer period of time. And so I told my oncologist, I said that there's an oral medication that is an antagonist to the GnRH receptor in the hypothalamus. Just like what Lupron is doing. But this medication you take orally every day because it only lasts for a day. It's called relugolix and...

0:31:14.1 Carole: Can you spell it please, Michael.

0:31:18.7 MH: So R-E-L-U-G-I-X, I believe, relugolix.

0:31:24.9 Carole: Okay.

0:31:28.0 MH: And by the way, just to tell your listeners, have good insurance. The Abiraterone, I have to, I take that in the morning. It has to be taken like at 1, 2 o'clock in the morning. You can't have it around with a meal. So you have to have it at least an hour or two before you eat. I take four of them every night. I get up at around 1:30 in the morning. Each one costs $100. Okay. That's nothing. The relugolix, I asked, 'cause I called up my insurance company, I was just curious. It's almost a $1,000 for a pill. So I, every day am taking about $1,400 worth of medications every day. And my copay is $8 for the Abiraterone and $85 for the relugolix. So I couldn't afford it otherwise, and a lot of men can't and that's really unfortunate. But the problem that I wounded up having, which is strange, and I don't know if anybody else has experienced this, but I would have a dinner and my body temperature would drop by 10 degrees. I was so cold that there was absolutely nothing I could do to warm up my body. I would have like five blankets on. My wife would be worried about me thinking of actually having 911 call to get me to the hospital.

0:33:06.8 MH: And I start thinking about this. I mean, I never had this for the past one and a half years, but now I all of a sudden have it. And so it's likely that the relugolix which is only supposed to have one effect on your brain, may very well be having an effect on my temperature sensor in my brain, and I can't control my body temperature. In the meantime, I forgot to mention one of the other major side effects for women with going into menopause and having no hormone, estrogen or men who have no testosterone can get severe hot flashes. I was getting up to 20 a day, and they are vicious. Your whole body is in a sweat. Your underclothes are wet and it sucks the energy out of you. And again, being a doc and a scientist, I wasn't willing to accept this. So I went on the internet, just curious.

0:34:08.4 MH: And out of the blue, I see this device called Cool Cuff. And what it does is when you turn it on, there's a porcelain piece in the center. It goes down to 47 degrees. And what it does is it tells your brain, you are not hot, you're cool, and it shuts it off. And so my typical fashion, I decided, well, it works for me, I would love for it to work for others. And so I started a clinical trial. And so for your listeners, the good news is because trying to recruit can sometimes be difficult is that I got permission from my IRB now to recruit virtually so that I can actually virtually consent

them no matter where they are in the United States. And I can then send them the devices and be in constant contact with them. But all I can tell you is, for me, it works incredibly well. It costs about $200, it's worth it. And it doesn't completely shut them off, but it will diminish them substantially.

0:35:18.0 MH: And anybody who's had a hot flash will know when you begin to just feel it coming on, don't let it start because it's like taking a match and just lighting it and then throwing the match into a gasoline tank. Once that happens, you can't control it. And so if you could catch it immediately, it makes a big difference. So now, what to do about feeling severely cold in the evening? I mean that I never, I had no clue. And I went on the internet, nobody ever really heard about this. I'll bet you though, others feel it. So all of a sudden, a week later or after a couple of weeks, all of a sudden I no longer had it. And then a week later it came back. So now I'm thinking, well, what happened that week before where it was controlled? And it turned out that my wife made chili and chili contains capsaicin which is a compound that affects your pee receptors. And they have long range effects. And sure enough, if I now have my lunch, every lunch is chili with capsaicin in it. I went on the internet to think about buying capsaicin as pills, but when you read about it, they have major side effects, kind of major GI side effects and other issues by taking too much at one time. But having chili, A, it's good for my blood glucose because it's beans, right? And it worked, for me at least, it works incredibly well. I no longer have my body temperature dropping in the evening.

0:37:17.5 Carole: Wow.

0:37:18.2 MH: So now I wanted to take it up one more notch and I decided to really encourage men and women with cancer who really just like your husband, is just falling apart, right? I decided I'm gonna run the Boston Marathon next year. I never have run in my life. And my New Year's resolution for 2023 is to run the Boston Marathon next year. And so I started, like I said, never ran in my life. So I ran eighth of a mile. I thought it was great. Then a mile, that was great. And I kept increasing my distance. By April, I ran 13 and a half miles. And by Memorial weekend I ran 20 miles, I'm sorry, 25 miles in under, little under six hours. So now I had to be able to get a bib to run the Boston Marathon. And they're not easy to get. And there's a lot of charities associated with the Boston Athletic Association. So I applied to various ones and I applied to what's called the 26.2 Foundation.

0:38:38.0 MH: It was founded by former marathon winners. And this group encourages marathoning for children and adults running any kind of activity for your health, both your physical and mental health. They had over, I don't know how many applicants, but I told them my story and I told them that I'm happy to try to raise money right for the bib, but more importantly, I wanna be an inspiration. If I can do this, anyone can do this. I'm gonna be 78 years old when I run it on April 15. I'm now in training. So I run about now easily, I could easily go out and I feel great and run five miles. And on the weekend I run about 10 to 15 miles and will continue to increase the distance. But what I really need is to increase my speed, right? And so I was doing like a 15-minute mile initially. I'm now down to about 14-minute mile. And my goal is around 13 or 13 and a half minute mile for the whole 26.2 miles of the Boston Marathon.

0:39:57.4 Carole: Alright. I think it's marvelous. The story that you have told is so filled with information that can be just kinda taken apart by you and by other scientifically oriented people to look at much bigger population. Your capsaicin comment was also... I had read about chili peppers. I have an allergy issue and having this particular spice in what I was eating is the only thing over a

course of more than five years that's addressed the nasal passages in such a way that they stop dripping.

0:40:43.3 MH: Wow, nice. So I'm going to leave you with one more thought about this.

0:40:48.0 Carole: Yes, please.

0:40:48.6 MH: This is potentially the most serious complication of these medications, at least for men with prostate cancer and probably for others as well. It's well documented that men with prostate cancer have a four times higher risk of suicide. And these medications play in your head. I mean, they can really kind of make it clear to you that the easy way out is just to go to the bright light. And that's it. And so I have as one of my chapters explaining about this issue, and it's an important one for people to realize.

0:41:41.5 Carole: It's extremely important. It's extremely important not just for that person, but for their caregivers.

0:41:47.7 MH: Right. And what's most important is we know that men who have no family, that live alone, are more likely to do this. And so it's incredibly important for families who have a loved one; brother, husband, grandfather with prostate cancer, to be in closer touch and to be sure that everything is well with your loved one. And on the opposite side is, it's really important but presumably very difficult for anyone to admit that they've been thinking about this. But incredibly important. If you don't want to talk to your provider, your primary care doc, talk to your family, because just releasing it from you can make all the difference in the world and really give you clarity. That just makes no sense at all.

0:42:50.3 Carole: Yes. I think the no sense at all is also important. I mean, there are people who get these terrible thoughts and they may or may not try to hide them, but the very fact that they are not necessarily caused by somebody being unkind to them or by circumstances that they might dream up. And if back again to the caregiver, whether it be a family person or a medical person or whatever, realizes that solving the problem isn't necessarily addressing directly what the subject of the concern is.

0:43:31.2 MH: Right. And it also turns out...

0:43:33.3 Carole: Beautiful. This is beautiful. Well, I know that... Anyway, carry on.

0:43:40.1 MH: If it's okay, is just one more piece about the suicide.

0:43:45.5 Carole: Please.

0:43:46.6 MH: Which is, that there's what's called suicide ideation, which means that people are having ideas of suicide.

0:43:58.9 Carole: Yes.

0:44:00.8 MH: That's an important group, but the more important group, about a third of patients that commit suicide is due actually to intent. It's one thing to think about it, but it's another thing to

have the intent to do it. And those are the individuals that are the ones that ultimately you need to focus on. And those are the ones often that are unwilling to seek advice or to explain themselves because they've already decided, "I intend to do this." And so, again, incredibly important for anyone with this terrible disease, talk to family. They'll listen to you, right? And make sure that your family members are aware of this and talk to you.

0:45:00.8 Carole: And give everybody a good hug.

0:45:02.3 MH: No question. It makes a very... I mean, I've been blessed. I celebrated my 51st wedding anniversary with my beautiful, wonderful wife and she's been incredible. Because, like I said, I was becoming a zombie at night. I couldn't function. I mean, it was to the point where you're standing, you know that you have to go someplace and you can't move. And Sally would be there say, okay, "Move! Move!". Or when it came time, where I was so cold that I was really hypothermic is that she would come to my aid. And so I've been totally blessed and really happy to share all of this. And like I said, it's on my facebook, all these chapters is to really help men with prostate cancer, but also women with breast cancer, they go through the same thing.

0:46:03.7 Carole: And please, please put the word in your book or your whatever about caregivers. All of these people who need care are getting it somehow or not and the more knowledge that can be expended out there to share how to help these people is really important.

0:46:21.1 MH: Yeah and I think I had mentioned to you and I have a flyer now that if people are interested in wanting to support my run to be part of the family of donors, I'd be most grateful and I think you have the URL.

0:46:38.5 Carole: We will post that on the Grassroots Health website, Michael. Very shortly, very shortly so people can...

0:46:41.0 MH: I appreciate that. And now I have a new goal for running the Boston Marathon and it's in the honor of my brother who at 75 passed away with colon cancer just a couple weeks ago.

0:46:56.4 Carole: I am so sorry. Yes.

0:46:57.4 MH: Yeah. Yeah. Cancer is not your friend. I mean it is...

0:47:03.3 Carole: I've already been through that decision.

0:47:06.1 MH: It's a monster and it literally wants to eat you alive and it will do so. But you need to be aggressive against it in any way shape or form.

0:47:17.8 Carole: Well, both to tackle it when you've got it but at the same time very aggressive in preventing it to the extent that you can.

0:47:30.5 MH: Or at least making sure that you get colonoscopy at least once every five years and they find polyps should be even more soon than that. Men like I said by the age of 45 or 50 they should start having routine PSAs and don't ever ever stop. It was only COVID that did me in. I because I was religious in seeing my primary care doc so even though I'm a doc I never want to play doctor for myself and so I was very happy to see my primary care doc. Yeah.

0:48:06.3 Carole: Sure. Well, Michael I want to invite all of the people that see this to send queries to carol@grassrootshealth.org and we will respond to the queries most likely with certainly we get the information but we want to know what you've asked and we want to share that with everybody and then obviously with Dr. Holick because once you see more, I'm sure you've already seen thousands of people responding to your information but this is a goldmine and throughout all of the whole vitamin D work that I've done ever since I met you back in 2008, there's always this goldmine sitting there and doing things not just sitting there, so that is so appreciated Michael.

0:49:00.0 MH: My pleasure, yeah it's my pleasure. I mean I thoroughly enjoyed our first meeting in Boston.

0:49:04.4 Carole: That was a while ago.

0:49:05.5 MH: It was a while ago and you know and our friendship has continued and you've done incredible things to help the health and welfare of people you know globally and some of the time we could probably talk a little bit more about vitamin D.

0:49:22.5 Carole: Oh, of course. But not today.

0:49:29.8 MH: That's exactly right. Yeah. This has to be just focused on have a diagnosis, you need to intervene as soon as possible. Don't become fat and flabby.

0:49:41.3 Carole: And there are things you can do. There are, I just, people need to have confidence that there are things to do.

0:49:49.5 MH: Yeah, most definitely. I've been on a webinar for Dana-Farber and the Telethon for them and I've gotten back like you said I have over now I think 9,000 or 10,000 followers on my Facebook and I'm getting emails from daughters with fathers with prostate cancer, they care to say get off your desk and get going. If Holick can do it, you can do it.

0:50:16.1 Carole: Well, Michael thank you for today and we will get this published very quickly and get the chain started with great feedback that helps people help themselves. Thank you so much again.

0:50:33.0 MH: Happy New Year.

0:50:34.1 Carole: Thank you very much and you. [chuckle]

0:50:35.8 MH: Bye-bye.

0:50:38.2 Carole: Bye-bye.