

Pointing the Bone at Cancer: In Dogs, Cats and Humans: A Special Interview with Dr. Ian Billinghurst

By Dr. Karen Becker

KB: Dr. Karen Becker

IB: Dr. Ian Billinghurst

KB: Hi, I'm Dr. Karen Becker. I am very excited today because I'm interviewing the father of raw food, Dr. Ian Billinghurst. Dr. Billinghurst is a very well-known author and, of course, a veterinarian. But, in my opinion, despite the fact that there probably have been pockets of humans feeding fresh, living, whole, species-appropriate diets their whole life, he was the man who wrote the first books about it. For that, Dr. Billinghurst, we are all forever indebted to you.

We appreciate not only your hard work with bringing raw food – this common sense way of evolutionary feeding – into light, but you just really committing your entire life and career towards getting the word out about the benefits of fresh food. I appreciate all that you have done in the past. But we're here to talk about your latest venture. Dr. Billinghurst wrote a brand new book called *Pointing the Bone at Cancer: In Dogs, Cats and Humans*. Ian, let's talk a little about why you wrote that book.

IB: Thank you very much, Karen, Dr. Becker, for having me on today. It's a great privilege to be here talking with you. As an answer to your question, this was a book I most definitely had to write. I had no choice. We, as veterinarians and as medical doctors, are losing this war against cancer. This is a war that we've been fighting for hundreds of years, but very specifically, since Richard Nixon began that first battle against cancer in the 1970s, when he initiated all that research. Now, that research, unfortunately, has done very little to defeat cancer.

This whole problem became very personal to me when members of my own family developed cancer. I watched them pass away under the current standard of care. I knew this didn't have to be. As a veterinary practitioner for many years, and as you pointed out, as one who advocated raw feeding and evolutionary nutrition, I watched my own patients, who had developed cancer. I watched them become free of cancer. I watched my patients who didn't eat processed food not develop cancer. If they did develop cancer, it happened later in life. I knew this was a problem that had a lot to do with the nutrition.

Once my own family really began to suffer with cancer, it became personal. I started to do a lot of research. What I uncovered was some disturbing truths – the fact that we don't really know what we're dealing with when we're dealing with cancer. The way we currently treat cancer using chemotherapy and radiotherapy, which is cruel in the extreme, does not have to be.

These are the truths that I've written in *Pointing the Bone at Cancer*. They're fully detailed. The book is there to show the science behind these truths. This is the important point. There's a lot going on in the internet explaining about cancer, but what I had to do was show the science behind it. It's become quite a thick book, if you will.

KB: It is.

IB: But it had to be written.

KB: It's a very thick book. You do an exceptional job of explaining in great detail – because you have to – not only the cellular mechanisms, but the pathophysiology behind how cancer gets started.

When you started researching – I don't know about your training in Australia, but my training at Iowa State University 25 years ago was that cancer was primarily a genetic disease. There's not much you can do about it. I don't know what you learned, Ian, but that's a very different premise than what's in your book. Walk me through the evolution of what we learned as veterinarians forever ago in school and what you wrote about in your book, because they're two very different theories.

IB: They are two very different theories. What we currently understand and believe about cancer if we are an oncologist, whether we're veterinary or medical oncologists, is that cancer is a disease where certain carcinogens, whether chemicals, radiation, viruses or even lifestyle, impact the genome in the cell's nucleus. They cause mutations. It's those mutations that then go on to form cancer. That's our current belief. This results in a belief where we are fighting more than 200 different diseases. We're battling specific genes and their protein products. This is a war that is not working. The reason it's not working is because that is actually not what cancer is.

As it turns out, we've known about cancer since the 1930s. Professor Otto Warburg – he was a German, a brilliant scientist – had discovered [this] in the 1930s. He published a paper and a seminar on this in 1955 explaining that cancer is actually a mitochondrial disease. The mitochondria are the organelles in our cells that produce energy. If we don't produce energy, our cells die.

He showed that when the mitochondria become impacted by the carcinogens – not the nucleus, the mitochondria – The mitochondria are actually ancient bacteria living in our cells. I've detailed this in the book of course, but this is all basic science that we've known about for a long time. They produce our energy. When that energy becomes compromised, if it happens acutely, the cell simply dies. But if those mitochondria are impacted over a long period of time by chemicals, by radiation, by lifestyle, and they gradually turn off their ability to produce energy, over time the cells start to produce energy in a different way. It's kind of a rescue mechanism. It starts to produce energy by a process called fermentation.

Now, as it happens, that process of fermentation is the same process that occurs in embryonic stem cells. In fact, it's a very ancient process. When fermentation is turned on in this way, it turns on the same process that happens in early embryonic stem cells of constant reproduction and growth. This is the beginning of cancer. When our mitochondria turn on fermentation, this also turns on, within the cell, within the nucleus, all the reproductive machinery of that cell. It also turns off the gene repair programs. This is where all this mutational mayhem that occurs in cancer cells begins. This then promotes the ongoing process of cancer.

This is a long and difficult story. It's a complex story. It's one that our oncologists currently either don't know about or don't want to know about, because there's a lot of money tied up in using chemotherapy and radiotherapy. If we can harness what we know about cancer, its true origins, we get a way to defeat it. That way is through nutrition.

This is what *Pointing the Bone at Cancer* is all about – how we can defeat cancer through nutrition. Because once a cancer cell starts, it's using only fermentation for energy. That includes sugar. This is cancer's Achilles' heel. They lead to cancer. If we could starve it of sugar, it can actually be killed. This is the way that ketogenic diets come in. I'll talk about that in a moment.

KB: Yeah. What's wonderful – First of all, I feel like there is a worldwide perfect storm happening in pockets where the epigenetics people are bringing this to light in the human realm. Dominic D'Agostino, Thomas Seyfried – there are just a lot of people that are focusing on the metabolic aspects of cancer, instead of the genetic aspects. Certainly, turning on oncogenes happens down the road, but that's a down-the-stream process than the underlying root cause of the mitochondria not being able to respire correctly.

Why do you think, Ian – The human oncologists are starting to get onboard with this. But to my knowledge, Ian, you are the one and only veterinarian who has certainly written to the extent that you have, in completing this massive accumulation of data in your book. Why do you feel like veterinarians – When I brought this up, they're unaware of the theory. They're unaware that this is even a possibility. They look at me like maybe this is a holistic theory in something that a few of us may be going down a rabbit trail on.

Why do you think that veterinary oncologists – I don't feel that's they're trying to be deceptive – but why do you think that this information is not being passed from the human realm down into the veterinary realm? Do you think it's just going to take 20 years before veterinary oncologists get it?

[-----10:00-----]

IB: I wish I knew the answer to that question, Karen. We vets are a very conservative profession. We are the most conservative profession I know. We are so tied up in our beliefs about nutrition. Our belief about nutrition is that processed pet food is the only way to feed pets. Isn't that terrible that we have this belief? This is why the profession works. It believes that processed pet food is the only way to feed pets. Yet, processed pet food, based as it is on carbohydrates, actually drives cancer.

All our veterinary schools are funded by the major pet food companies. Our vets come out fully believing in processed pet food as the only way to feed pets. Now, they don't have any malicious intent in this. All their other training is brilliant. They have no reason to believe, as young impressionable late 10s and early 20s-something people, that what they've been told about nutrition isn't 100 percent correct. It's so wrong. We have this inbuilt, I guess, belief in processed pet food, which really does stop us looking outside the square and at any other form of nutrition. The belief that cancer could actually be defeated by nutrition is almost inapt to them.

KB: Yeah.

IB: Having said that, Hill's has produced a cancer diet based on those principles. But it's not good enough.

KB: Right. Along that same vein, you are correct. Dr. Greg Ogilvie participated, almost 30 years ago now, in recognizing that maybe all this high-starch, carb-based – ultimately that converts to sugar – diets would not be best for cancer patients. He wisely focused on reducing carbohydrate, increasing protein, which is great – still an entirely processed food. I know that his beliefs have also evolved from that. He's ahead of the curve now in recognizing that a no-carbohydrate or an ultralow-net carb diet, moderate-protein and higher fat diet is the way to go.

There are pockets of really progressive veterinarians that are ahead of the curve, like yourself and Dr. Ogilvie. But generally speaking, actually, Ian, because I'm participating with Rodney Habib in filming this cancer documentary, going around the world talking to the top veterinary oncologists, many of them don't necessarily even see that there's a role with food playing into cancer, other than keeping pets fat, very, very fat. So that when chemotherapy starts to cause nausea, vomiting, anorexia and lethargy, as they lose weight from the chemotherapy drugs, then they have some padding so that they don't become cachexic. That's kind of the underlying tone of many, many oncologists. It's very devastating to me.

My question to you, being on the leading edge of this entire forefront of trying to change people's perception of what cancer is and why dogs and cats acquire cancer, that it really is metabolic dysfunction. Certainly, there is a genetic component, but we have grossly underestimated the metabolic component. Ian, what are your recommendations when people come in and say, "My gosh. My dog or cat has cancer." What are your recommendations nutritionally to help address it?

IB: Okay. This applies to all species, whether it be homo sapiens, humans, whether we're talking about cats, dogs. There are two basic components. Well, three actually. One, we must be feeding to our cats and dogs a diet that is in tune with their genomes. In other words, it must be the evolutionary program nutritionally based on that. It's real food. It's whole food. Now we have to tweak it in two very specific ways.

By the way, what we have to understand is that cancer is just one of many degenerative diseases. What I'm saying is, in many ways, this applies to most degenerative disease. But very specifically, in cancer, there are two things we need to do. First of all is the ketogenic diet. Second of all is calorie restriction. They're the two major components.

Interestingly, we've known about calorie restriction, I think, probably 50 or maybe more years as a reason for longevity and for reducing the ravages of aging. Aging is the process that causes degenerative disease, including cancer.

So, calorie restriction and ketogenic diet. Now, the ketogenic diet, what is it? Basically, it's a high-fat, exceedingly low- to no-carbohydrate (because carbohydrate feeds cancer) and very moderate protein, just enough protein to meet the individual's or the patient's needs for protein. Because if we feed excessive protein, the liver simply turns it into sugar, which then feeds the

cancer. So it's very important that we keep the protein down. Fat as high as possible. Now, obviously there are some dogs that can't tolerate high-fat – pancreatitis and so on. But where you can tolerate the fat as high as possible, 80 percent or even 90 percent.

Now, this is not a diet that is easy to produce at home, but people can do it. For humans, it's very difficult. The whole family needs to be involved or into the medical situation, which we're not doing at the moment, of course. Cats and dogs – as parents, we can do it. It's going to be whole food, raw food, high-fat, moderate-protein and low as possible carbohydrates, in terms of sugar or starch. Then, we need to reduce the calories. I could only just give brief outlines here with the time that we've got. But we need to reduce the calories. It's a low-calorie diet. These two things really starve cancer. This is what I've discovered over the years.

Initially, I didn't know why these things were working, but then over time, I learned more about it. Now, they must become the mainstay of any oncologist's regimen to treat cancer. They are based on the soundness of science on what cancer actually is. Then we further tweak it by our supplements. These have to support mitochondrial health.

There could also be other things to look at, like selenium, vitamin C, vitamin A, B complex, the whole range. If the B complex you're using now, it must be activated B complex. There's a whole range of things. Phytonutrients, there are many phytonutrients that fight specific aspects of the cancer's process.

Yes, cancer is clearly a genetic disease, but it has a mitochondrial origin that then drives the genetics. It's the mitochondrial origin per se. But in answering your question, ketogenic diet, calorie-restriction and then very careful and targeted supplementation. I call this – it's all outlined in the book – “targeted nutritional therapy,” TNT, very explosive.

KB: I like that.

IB: Yes. At the same time, I also point out that the reason I call this *Pointing the Bone at Cancer* is based on an aboriginal tribal thing that happens in Australia, where an aboriginal shaman, or witch doctor, points a bone deemed to have deadly power at some miscreant, some wrongdoer, some very bad wrongdoer. That wrongdoer then quietly cognitively processes his own mind, then he dies. He passes away because he knows that bone has been pointed at him. Well, I want to point that bone at cancer. We can do that through nutrition. That's what the book is about – to give the sound science behind all of this.

KB: Ian, talk to people – because this whole concept of ketogenic diet is brand new. First of all, my first hurdle is just explaining to veterinarians, of course, that nutritional ketosis is entirely different than diabetic ketoacidosis. We're going to skip that right now. That's hurdle number 1 for me. Hurdle number 2 is a lot of pet parents say to me, “But I'm already feeding a raw food diet.” A lot of people say, “I put my dog on raw foods at birth.” Can you touch on how the ketogenic diet does differ slightly than, let's say, your recommendations in your previous books?

IB: Absolutely. We all produce ketones, whether it's pets or humans, at very low levels, exceedingly low levels. But we do know that [there are] conditions under which ketones are

produced by bodies. One of those conditions is extreme starvation. Another one is very high-fat diets.

Why does the body produce ketones? It produces ketones when there's no sugar available or very little sugar available. Every body cell can use ketones, but not cancer cells. It's quite a job to get the sugar low enough to starve the cancer, and the ketones high enough so that the body cells are responding with health to the ketones, which they can use for energy but the cancer cannot.

[-----20:00-----]

This is not easy to do. The normal evolutionary diet does not produce this level of ketones. The level of ketones, without going into the figures, is around about four to five. Now, in ketoacidosis, the level of ketones is in the 30s to 50s level. That's just for you vets out there. I'm not going to put the units in there. But those units are about four or five max under a ketogenic diet. Now, that's physiological and healthy and promotes health.

In fact, we now know that people who've had brain injuries, for example, put them on a ketogenic diet early enough and you actually begin the repair process in a single way. I watched the oldest research into brain cancer. It's been known for ages now that the ketogenic diet is so curative with brain cancer.

KB: Yeah. It is. It is shocking.

IB: [inaudible 20:58]

KB: No, no. It's true. Glioblastoma and other brain cancers respond unbelievably to the ketogenic diet, as does epilepsy. The standard of care in human pediatrics is ketogenic diet. And certainly, a true ketogenic diet in veterinary medicine can be very beneficial, as Dr. Billingham mentioned, for diabetes and epilepsy. There's a whole myriad of degenerative diseases that can benefit from this diet.

Dr. Billingham, when you first discovered this – so you read about it, you implemented it. Talk to me about the results you've seen in practice when you put your patients on a ketogenic diet. The biggest pushback I have seen by fellow veterinarians is, “Dr. Becker, I know you're an advocate of food. But you claiming that changing a pet's diet will slow or reverse cancer is asinine. You're doing a disservice by offering false hope.” What's your response, Ian?

IB: Obviously, I've seen dogs with aggressive lymphomas. We did not use any chemotherapy. We did use, in the early stages of aggressive lymphomas, a little bit of corticosteroids, but that was just as an initial dropping of all those lymphomas in size. But we immediately and aggressively put them on a ketogenic diet. We held those dogs at bay, also the cancer in those dogs at bay for two, three or four years. They died of something else. This was absolutely brilliant. Not only that, but their quality of life was absolutely brilliant. I was just blown away and amazed at these results at that time.

I didn't know why exactly. I knew that cancer thrived on sugar, but I didn't know the full extent until I've done my literature research. That only came out over the last five years or so. I understood that we had the cancer story completely wrong. That it wasn't initially a genetic disease. It was a metabolic disease based on faulty mitochondria. But that's my own experience. Other tumors or sarcomas, a lot of memory tumors we treated this way. Often, they didn't disappear entirely. We just held them.

KB: Yup.

IB: The dog then lived for years with the cancer. It became non-aggressive. It didn't spread and so on. This was my experience, but I didn't know why. It was only in the last five years I found out why.

But let me talk about one other thing. KetoPet Sanctuary in your country, in the States, they're having wonderful successes by taking terminally ill patients with metastatic cancer and putting them on a ketogenic diet. They're also using hyperbaric oxygen, as I understand, and just reversing those cancers. And of course, this is a clinical setting where they can very aggressively institute those diets. It's not just telling people to feed their pets this way. It's a clinical setting. I believe this is the way we have to go, whether it's for humans or veterinary patients. We must do it this way.

The answer to people who say that this couldn't possibly work is it's the science behind it. Seyfried outlines that science. I've attempted to outline that science in my book – I hope I had – in a sufficient way that people could understand it. It's there. The science is there. The results are there. This is not a fairytale. It's not fairies at the bottom of the garden or some fanciful [belief].

KB: Yeah.

IB: I don't like using the word holistic. But it's not some fanciful way of treating cancer. It's based on solid science. We have to adopt it if we're going to defeat this disease. That's why I wrote the book, as some sort of catalyst in people thinking and understanding about all this.

KB: One of the beautiful things – I've had the pleasure of visiting KetoPets Sanctuary twice. They're doing amazing things. They're regimented. Their diet is spot-on. Their calorie restriction is down to the calorie. That's why I think they're successful. But they haven't written a really comprehensive detailed summary as to why.

One of the reasons I wanted desperately to interview you is that KetoPet has created a tremendous amount of buzz around this topic. But veterinarians are actually, I think although interested, they're more confused than ever because we didn't learn about it in vet school. I do believe that your book is one of the very best ways.

If you have questions, if your veterinarian has questions or you yourself are a veterinarian watching this interview, I can't stress enough that if you're looking for the science behind this, certainly, yes – Dr. Thomas Seyfried, Richard Veech – there are some great human doctors and

PhDs who have collected a massive amount of information on the subject. But in veterinary medicine, not so much. Except for your book, Dr. Billinghamurst.

Can you talk to our pet parents and veterinarians if they wanted to order your book? I felt like it was 26 pounds when it arrived in the mail. Everyone, be aware of that. But if people wanted to order your 26-pound book, Ian, where do they go to get it?

IB: I guess straight to my website, DrIanBillinghurst.com. It really is that simple. I just want to get that message out there. It literally took me, I guess, almost 10 years to write.

KB: Yeah.

IB: But let me say this, my wife told me on the third of August 2016, “Ian, you have to finish this book. You need to get the information out there.”

KB: Yes.

IB: She gave me a deadline. It was the end of October of 2016, in three months. Naturally, being a good husband, I did what I was told.

KB: The entire world thanks Ros, all of us.

IB: Absolutely.

KB: Tell Ros thank you, because, Ian, what you’ve done – I do believe that your book is a massive contribution to this perfect storm of the human information getting out there. The human clinical trials have started. The results are impressive. KetoPet is up and going and really giving us a really promising insight into a clinical trial in this pertaining to dogs. And then, of course, your book, which is just a really great contribution to the people that need to sit down and read the science and understand it. Your book is just a really mighty contribution.

I appreciate you taking a decade, along with being, I know, a practicing veterinarian and all of the other things you do. I really appreciate your time, energy, passion and commitment towards finishing this book, because it’s a resource that every single one of us have benefited from and will benefit from. Thank you.

IB: Thank you for allowing me to have this opportunity to talk about it. I really appreciate it. Thank you.

[END]