



The Cancer Chronicles: Unlocking Medicine's Deepest Mystery

George Johnson

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When the woman he loved was diagnosed with a metastatic cancer, science writer George Johnson embarked on a journey to learn everything he could about the disease and the people who dedicate their lives to understanding and combating it. What he discovered is a revolution under way—an explosion of new ideas about what cancer really is and where it comes from. In a provocative and intellectually vibrant exploration, he takes us on an adventure through the history and recent advances of cancer research that will challenge everything you thought you knew about the disease.

Deftly excavating and illuminating decades of investigation and analysis, he reveals what we know and don't know about cancer, showing why a cure remains such a slippery concept. We follow him as he combs through the realms of epidemiology, clinical trials, laboratory experiments, and scientific hypotheses—rooted in every discipline from evolutionary biology to game theory and physics. Cogently extracting fact from a towering canon of myth and hype, he describes tumors that evolve like alien creatures inside the body, paleo-oncologists who uncover petrified tumors clinging to the skeletons of dinosaurs and ancient human ancestors, and the surprising reversals in science's comprehension of the causes of cancer, with the foods we eat and environmental toxins playing a lesser role. Perhaps most fascinating of all is how cancer borrows natural processes involved in the healing of a wound or the unfolding of a human embryo and turns them, jujitsu-like, against the body.

Throughout his pursuit, Johnson clarifies the human experience of cancer with elegiac grace, bearing witness to the punishing gauntlet of consultations, surgeries, targeted therapies, and other treatments. He finds compassion, solace, and community among a vast network of patients and professionals committed to the fight and wrestles to comprehend the cruel randomness cancer metes out in his own family. For anyone whose life has been affected by cancer and has found themselves asking why?, this book provides a new understanding. In good company with the works of Atul Gawande, Siddhartha Mukherjee, and Abraham Verghese, *The Cancer Chronicles* is endlessly surprising and as radiant in its prose as it is authoritative in its eye-opening science.

The Cancer Chronicles: Unlocking Medicine's Deepest Mystery Details

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Author : George Johnson

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George Johnson**

From Reader Review The Cancer Chronicles: Unlocking Medicine's Deepest Mystery for online ebook

Holly says

Johnson is such a good science writer. He covered a lot of territory in this book - the inevitable comparison is to Mukherjee's *Emperor of All Maladies* but the two writers didn't have the same objectives (one a "biography" and the other a wide-ranging survey). In my review of Mukherjee I took issue with his reliance on the war/battle metaphor - and Johnson is clearly uncomfortable with that metaphor. Without relying on that war drumbeat Johnson explores the varied approaches to cancer (how we think about it, how we treat it, how we try to avoid it, epidemiological issues, and cutting-edge research). He doesn't attempt to be comprehensive - more open-ended, and it's not a long book (though the notes are substantive). Also a personal journey through cancer treatment with his wife (bit of a surprise at the end of the book there - and I'm not talking about life/death).

Torytory says

This book is a refreshing detour from the ubiquitous "let's cure cancer" mindset. It explores different theories about how and why we get cancer and why it might just be inevitable and impossible to cure. While this may sound rather negative and hopeless, I actually found it to be a relief. Those of us who have had cancer can spend way too much time agonizing over what we did wrong and why we were afflicted and I felt that this book gave me permission to take a break from that mentality.

it's also a very interesting look at cancer on a cellular level, written for the most part in layman's terms.

Lara Santoro says

Yet another great book by a great writer -- a "poet", as The New York Times just called him, despite his resolute focus on science. What is cancer? How far back does it go? What do we actually know about it? Which assumptions are starting to look old and tired? In the hands of a lesser writer, the subject might either scare or tire, but Johnson's ability to simplify the most hermetic truths and entertain us as he does so, is a gift from start to finish.

Jose Moa says

Written when motivated by a personal tragedy the author makes a brief biography of cancer from tumors in the bones of dinosaurs 150 million years ago to today and explains the last theories and treatments in chemotherapy, the last drugs, and radiotherapy.

He explains as the mutations of certain genes, the oncogenes, that control the reproduction of the cell, forces it to a runaway reproduction following through darwinian selection thousands of evolutionary paths, and learning to force the cooperation of the cells of immune system and acquiring skills to induce angiogenesis (formation of the blood vessels that feed the tumor), metastasis and to become resistant to

chemoterapy drugs and radioteraphy including in its skills metabolic changes ,as to change from a aerobic metabolism to a anaerobic metabolism in the center of the tumor.But also considers other explanations as estranded stem cells or the mitocondrial theory or as the molecules involved in the disease are quantum systems ,in the quantum realm,some researches think that quantum mechanics could be involved in some way.He also tells that in early detection of little metastases the best non invasive tool is the PET(positron emission tomography),whether radioactive glucose is injected in the blood and as the tumor metabolic rate is high the glucose accumulates in tumors,by beta decay the positrons emitted annihilate with electrons of neirbour atoms producing gamma ray flashes that when detected give a cristal clear tridimensional picture of the tumors in the body

Also explains that in some way the cancer growth have somethings in comon wit the process of the embriogenesis ,as is clear in certain class of tumors named teratomas.

As the working of the cell is controlled by the genome ,and being the genome stored information in the ADN molecule , he develops the idea that the cancer can be considered as a information disease.

Being the cell a extremely complex molecular nanomachine whose whole knowledge will be a very long hard task the autor makes clear that the final solution of the cancer problem could not be near in time.

The book makes a revision of the late investigations over the factor risks in geting cancer,being the major risks the tobacco smoking,the excesive comsum of red meat,viruses infections as in papiloma or hepatitis virus,the obessity,the long exposition to carcinogens as asbestos,tar or to radioactive sources as Radon gas or X rays.In the case of breast cancer a factor risk if too many menstrual cicles as consecuence of a premature menarquie or by not being pregnant,also exposition to too much estrogen hormone.The studies are no so clear or inconclusive with regard to other risks as chemical polutants, for example the plastic or food aditives or use of cell phones.

A good easy to read popular book about cancer ,full of information on the last results of investigation ,chemoterapy drugs,experimenltal treatments and with a lot of references.

David Quinn says

This book is the equivalent of talking to your teenage son (minus the technical jargon):

So, Junior, how was school today? I don't know.

Do you have any homework? I don't know.

The author seemed almost curmudgeonly gleeful that cancer's causes are mostly unknown and scornful of the fundraising efforts for cancer research. And I have absolutely no idea where the subtitle came from (Unlocking Medicine's Deepest Mystery) as nothing could be further from the truth. No medical mysteries are unlocked. If anything, the author takes great pains to cast doubt on just about anything involving cancer (other than smoking being a contributor to cancer) - High radon levels may actually be beneficial! In your face! It's like the scene in Sleeper, without the humor, where Woody Allen wakes up 200 years in the future and learns that smoking, red meat and deep fats are good for you.

This is a subject matter that interests me and yet I struggled to get through the dry, overly technical medical

jargon. The parts I understood weren't much better either.

Read *The Emperor of All Maladies* (by Siddartha Mukherjee) instead and skip this one.

Rebecca says

From prehistoric times to current developments, Johnson surveys the phenomenon of cancer, all along blending personal anecdote with cutting-edge research. He started his journey into cancer when his wife, Nancy, was diagnosed with a rare uterine variety. He took it as an opportunity not just for personal soul-searching (why her? why now?), but also for a wide-ranging odyssey into research about what causes cancer and how long it has been with us.

Ultimately, Siddhartha Mukherjee's Pulitzer Prize-winning *The Emperor of All Maladies* is the more comprehensive and optimistic study of cancer, but Johnson's is shorter and highly readable. I can see how others would be put off by both the weighty scientific subject and the pessimistic tone. However, I encourage reluctant readers to give this one a try. You will learn more than you might expect, and explode many myths along the way.

(See my full review at [The Bookbag](#).)

Mal Warwick says

A story already told better

If you’re looking for an introduction to the painful subject of cancer — its history, its origins, and the efforts of science to combat it — I suggest you read the authoritative and compelling book, *The Emperor of All Maladies*, by the oncologist Siddhartha Mukherjee. *The Cancer Chronicles* treats the same subject in a similar way but with far less success. George Johnson’s unrestrained use of medical and scientific jargon left me reeling, page after page, and I suspect that any other nonscientist will have a similar experience.

Undoubtedly, Johnson's book — published in 2013, two years after *The Emperor of All Maladies* — includes information about numerous advances in cancer research and treatment that wasn't available in 2011. Research in the field is accelerating that quickly! But Johnson shrouds his story with so many polysyllabic descriptors that I finished the book and couldn't remember a single outstanding new development. There's something to be said for the English language, unsullied by specialists' cant. I wish technical writers would learn the lesson.

George Johnson is an accomplished science writer whose credits include extensive work on television as well as writing for The New York Times. I would hope that his other work is better than what's on offer in The Cancer Chronicles.

Mustafa Soliman says

Yomna Suwaïdan says

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K. Lincoln says

I am now a month out from finishing surgery/chemo/radiation for invasive ductal carcinoma of the right breast. I am reading a bunch of memoirs and more scientific books (best one before this so far is Emperor of Maladies) trying to get a scientific and historical perspective on a disease that has affected me so very invasively and personally.

That's what the author, George Johnson, did, too in this book. He is a science writer, and uniquely situated with academic background, contacts, and assignments to research into cancer when his wife of the the time is diagnosed.

He starts the book with dinosaur bones showing evidence of osteocarcinoma, goes on to survey some of the various parts of science that are deeply digging into the chemical, genetic and biological mechanisms by which various cancers operate, dabbles a bit in how some of the chemotherapy drugs were developed, and finishes up with a survey of some of the suspected causes.

Along the way, Johnson allows us personal glimpses of his wife's and brother's battles with cancer. Enough to personalize the journey in a meaningful way without getting too much into the nitty gritty of treatments. (Unlike Emperor of Maladies which is mega-focused on treatment). This book is more a kind of broad intro to what scientists are studying; how genes are turned on or off, how mutations occur, the mechanisms of overexpression, delving into "protein maps" of people whose tumors react to chemotherapy to compare the proteins their RNA creates with others of people whose tumors don't, etc.

The explanations are understandable for laymen like me (lit major) but still deep enough that they made me have to focus and reread certain passages to understand.

From my own perspective, the parts of this book that stood out for me are his acknowledgement of how people seem to resist evidence in the face of cancer diagnosis, looking desperately to blame something somewhere for what is (as far as we know) most likely a series of random events and reactions. When talking about how his wife's diagnosis made his mind link to a neighbors' subsequent diagnosis and death, he writes "All of us acquire our own personal cancer clusters, and a mental file of anecdotal evidence as unreliable as it is impossible not to deep down believe."

Until I was diagnosed with breast cancer, I had no idea how prevalent it was, nor did I spend so much time trying to find categories to put survivors in-- dwelling on similarities for good prognosis and desperately snatching at differences for those with bad prognosis.

The other part that surprised me, is the discussion of the SEER and the European EPIC studies that have to do with the correlation or relation of veggies/fruits with cancer. While SEER definitely promoted this kind of diet, Johnson relates how a prominent scientist involved with EPIC notes there isn't really anything in nutrition that stands out, when looking at populations.

Johnson and the scientist seem to think that the biggest factor for women's breast cancer, if not other cancers, seems to be obesity and lack of exercise. This made me groan, for sure. It's so much easier to include blueberries, kale, and broccoli sprouts in one's diet than to deal with the overall lifestyle choices one must make to stay a normal BMI. While I won't stop eating blueberries and broccoli sprouts, the evidence is convincing.

He also touches glancingly on the topic of how "pink" and breast cancer fundraising efforts have in some ways co opted the perception of cancer as something we just need to "stand up and fight" by celebrities and pink-wear.

I wish this book had ended on a more positive note (one of his later conclusions is that the "ethroi always win in the end" referencing the Madeline L'Engle fantastical forces of entropy and chaos that tried to destroy the mitochondria in the protagonist of her novel Wind in the Door) but the truth is that medicine at this point still doesn't understand why/how different cancers work or indeed why/how different treatments succeed or fail.

Truth resists simplicity. If you are looking for a way to understand the complex truth of cancer in humans, this is a good book for you. If you're looking for an uplifting message of hope, you may want to steer clear.

Deirdre says

This was one of the easiest books on cancer for me to read. I found it informative and in certain ways comforting. The concept that there's more cancer these days because we're not dying from other diseases and that there are dinosaur skeletons with signs of cancer.

I was a cancer patient, I was lucky, I responded in a textbook fashion to chemotherapy regime I was put on. My lottery ticket may have been stamped by the glandular fever I had earlier in my life (apparently all patients who have Hodgkin's Lymphoma had glandular fever but not all people who get glandular fever get Hodgkin's), by the genetics that link geeks in our family with cancer (stomach - grandfather; liver - uncle) or the environmental issues with having worked late shifts and living for a few years in a bustling city centre. Whatever happened I had cancer, some books make me very stressed but this book reassured me that there are people working on this and trying to find solutions to ensure that future generations won't suffer from this.

Through the science he also weaves the story of his wife's cancer. Her treatment and the aftermath and the afterword including his brother's cancer. It's touching in parts and you can see his path to try to understand this while his wife is going through all the trauma of treatment and testing and heartbreak. You can see how he's trying to understand this and trying, in the face of a situation where he has no power or agency over this thing that's happening.

I found it a compelling read and would recommend it to almost everyone.

Happyreader says

Radiation may not be as deadly as we thought and no single food or food category will definitely cut your cancer risk. Try not to smoke, be fat and/or sedentary, age, or have diabetes – and still, it's kind of a crap shoot who gets cancer or why. Then again, this book is less about what causes or prevents cancer but more an exploration of the complexity of cancer and the frustrations of diagnosing and treating cancer in its many shapes and forms. We are such complex organisms with so many constantly evolving parts and interrelationships that both protect us and make us vulnerable. If nothing else, it's a reminder that none of us, regardless of how healthy or unhealthy we think we live, should feel smug and protected or live in constant fear. It's like death itself. None of us know how, when or why we may die; none of us know if or when our cells will go rogue and cancerous and if we'll survive the shock to the system.

Mary says

George Johnson is a science writer, and when his wife gets a rare form of cancer, he begins his investigation into the history of cancer and the complexity of the disease.

Lots of very understandable science in this book and very interesting reading. Johnson immerses himself in the study of cancer. He reads books and cutting edge articles, not just about the type of cancer his wife has, but a wide range of cancers. He attends conventions of scientists and interviews researchers.

He shares his wife's diagnosis, surgery, and treatment details. He also talks about his brother's death from cancer.

What really comes across in this book is the reason that cancer is still with us. It is a highly complex group of diseases. Johnson describes the life of a cell and how the lymph system works in the body.

Very interest reading. Also quite scary in some respects. But also inspiring to learn how many scientists and doctors are hard at work expanding our knowledge of the diagnosis and treatment of cancer but also the ways in which our body works.

Mr Shahabi says

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Jason Fella says

Having had cancer myself when I was 21, I've been devouring every bit of info on health, nutrition, and cancer since then. This book certainly tackles things fairly comprehensively and brings up issues and viewpoints I never thought of, or heard. He talks about why many previous studies were flawed or nearly useless, and how new studies will remedy those errors.

Ironically, the chapter on metabolism and cancer was the one I was looking forward to the most, but turned out to be the most disappointing. He does mention Gary Taubes' excellent book "Good Calories, Bad Calories" and some of the statistics he uncovered involving hunter-gatherer societies and their low-carb diets allowing those cultures to live without many western diseases. He says it makes sense, but then doesn't go into ANY examination or review of any studies, statistics, etc. He only says that, at this point, fat-storage, diabetes, and insulin levels are one of the few significant dietary factors we have to go on.

He also makes a very strange comment about free radicals. He says people would never want to completely get rid of free radicals, because they are actually a good thing. He says they are the bodies garbage collector and keep toxins from building up. It sounds like he's describing anti-oxidants, not free radicals. I have never, in my years of reading about this subject, ever heard anyone say free radicals were in any way positive.

Still, this book has some surprising revelations and I can almost guarantee you will be thinking differently about cancer when you're finished
