

“Among all the deadly cancers, it is the slowest and laziest. It should have no chance of killing a single person in a country as fortunate as ours.”



## Chapter 18

### The *Real* Story of the Tortoise and the Hare

**T**he tortoise in the original story is an inspirational character, plodding along at a steady pace to win the race. The cancer that invades the colon also plods along, patiently focused on its objective.

I'll give away the ending. He's a tortoise gone bad, his inspiration is death. And many of us rabbits, who could easily take him, let him get to the finish line way ahead of us.

Here's the thing: colon cancer is a *moron*. Among all the deadly cancers, it is the slowest and laziest. It should have *no* chance of killing a single person in a country as fortunate as ours. But it does. While our healthcare system debates what to pay for, and patients delay screening because of the cost or the indelicate nature of the procedure, the tortoise lumbers along unnoticed.

It starts as a slow-growing, low-grade but obvious tumor, a pre-cancerous polyp. It takes years to grow into an aggressive, high-grade killer, so it's easy to underestimate, even disregard. It gets a significant head start, and by the time we notice, the outcome is a given. Race over. Tortoise one, patient zero.

One trick of the tortoise is to pick a path we don't like to have examined. Its other trick is to keep a low profile, providing no sign or symptom until we're in deep trouble.

We have many years during which we can find and cure this deadly cancer *during* the screening procedure, without so much as a pin prick to our skin, never mind major surgery, radiation, or chemotherapy. Failing that, there's a window of time when it can be cured with an operation alone. But if no one is looking for it, the disease

process gets too far ahead to be overtaken. By the time it shows its true colors, there's nothing we can do.

This is not a "man's disease" as many seem to believe. Women, who also must deal with risk from breast and cervical cancer, don't get a break from colon cancer. It's a 50-50 split between guys and gals. About 1 percent to 2 percent of adults get colon cancer, and about half of them will die from it. Recent statistics report about 120,000 new cases per year, about 60,000 deaths in the U.S. And most of these deaths are completely unnecessary.

Nobody, myself included, likes to look for a problem that requires entrance through the rear end or the process of getting rid of any and all poop in your intestines. But like poop, colon cancer happens. Most of us know someone who has it or who died from it.

Unlike other types of screening that require little more than a blood or urine sample, or reclining on a table for a five-minute scan, this one requires a bit of time, effort, nerve, and perhaps some hard cash. So, convincing patients to have a colonoscopy is often a hard sell. The fact is, the procedure is virtually painless, as is the preparation and aftermath.

Colon cancer typically starts as a polyp, a punching bag-shaped growth coming off the inner wall of the large intestine. Part of the polyp, the center of the bag, gradually degenerates into abnormal, *somewhat* malignant cells, and over time these cells multiply into more and more *aggressive*, malignant cells.

At some point, many of these cancers begin to leak a little blood. I don't mean the bright red blood occasionally on the tissue after a bowel movement. That usually comes from internal hemorrhoids, and although it shouldn't be ignored, it seldom comes from cancer. The blood from colon cancer isn't usually noticeable. It is picked up by chemically testing a stool sample.

Meanwhile, our determined little tumor grows down the polyp stalk and around the circumference of the inner wall of the colon, and eventually begins to obstruct passage through it.

At this point there are finally symptoms, years after the damn thing could have been discovered and easily eliminated from the race. Now, the patient is faced with the possibility the cancer has spread.

This scenario happens so often. The vast majority of people do not get screened for this cancer at all, and those who do may not get *state-of-the-art* technology.

The standard of care has long been inadequate in colon cancer screening. For decades we've been pussy-footing around with the "cost-effective" techniques of sampling stool multiple times and chemi-

cally testing it for blood, hoping that if the patient has a cancer brewing we'll get lucky and catch a bit of blood mixed with the stool. Too indirect, too often done incorrectly, and usually detecting blood from hemorrhoids, not from cancer. In my opinion, a waste of time.

An inexpensive exam, the flexible sigmoidoscopy, is a short, more primitive version of colonoscopy that was often "allowed" by insurance companies since no anesthesia is needed and, instead of a specialist, the primary care physician can usually be trained to perform the test. Just a couple of problems. Flex Sig, as it's nicknamed, only looks at one-third of the colon. And it *hurts*. I had one and *only* one.

Colonoscopy, on the other hand is the gold standard of colon cancer screening. It's a six-foot long hose with a video camera on the business end as well as a light source, ports through which to pass surgical instruments and water for rinsing the lens, and complex controls to bend and guide it. It is used to view every square inch of the colon.

And that colon must be clean. The preparation is a very thorough, osmotic laxative that will keep you close to home the day or night before your test. It isn't painful; you'll just want to be close to your bathroom. You will also have to give up eating anything other than juice, Jell-O and broth.

The patient undergoing colonoscopy is sedated, because there's no need to feel the scope as it travels through your intestine. You won't be under deep anesthesia, just in a "twilight sleep" with an intravenous narcotic and sedative. Sometimes you can watch the video screen during the procedure, but you probably won't remember it.

The colonoscopy gives a direct look at the entire colon and allows the doctor to take painless biopsy samples of any suspicious areas. Even better, if the doctor finds any polyps, he or she can usually remove them right then and there.

Because anesthesia is used, and high-tech equipment and special training are required, the procedure is only performed in hospitals or specially-equipped procedure centers. Possible danger from the procedure includes bleeding and a minute, but serious risk of perforating the colon itself. That would make a surgical repair necessary. It's important to choose highly experienced physicians to perform your test. Colonoscopy also costs more than having a mole removed in the doctor's office, between one and two thousand dollars.

Historically, insurance companies and Medicare would only pay for it if patients had symptoms, usually too late in the game, or if there was a strong family history of colon cancer.

Newer imaging technology, similar to ultra-fast CT scanning used for screening of heart disease, may soon offer an optional and less-invasive method of screening at an earlier age.

I don't support the use of this yet, because any suspicious finding means that a colonoscopy must be performed anyway. That means another procedure, another bowel prep. CT and MRI imaging technology have a way to go before they can safely replace colonoscopy, but I've learned not to underestimate the bright men and women who make such things possible.

Screening colonoscopy is gradually becoming more and more accepted by insurance plans. That's nice, I guess, but insurance or not, every man and woman needs a colonoscopy when they turn 50. Many people need them earlier. Recommendations vary, depending on which of the following groups you find yourself in:

**Group 1: A person with no family history of colon cancer and a person who also has no history of colon polyps or cancer.** This applies only to people with reasonably complete knowledge about their biological family and whose family members have lived reasonably long lives. This group needs their first colonoscopy no later than at age 50. If all is normal, it's probably safe to go 6 to 10 years before retesting. Remember, this cancer is slow to grow. If a polyp is found, it's usually removed at the time of the test and sent to the pathologist. Some are harmless, hyperplastic polyps, but others, adenomatous polyps and a few other types, mean your colon is trying hard to misbehave and needs close attention in the future.

**Group 2: A person who has had a close relative, brother, sister, parent or grandparent, with colon cancer or polyps.** Or a person who doesn't know much about their biological family, or who lost their close relatives at young ages due to accidents or other illness. Remember, having *no* family history of a disease because close family members are unknown, as in adoption, or they didn't live long enough to risk getting the disease is not the same as having a *negative* family history of the disease. People in Group 2 should have a colonoscopy at age 40.

**Group 3: A person who has unexplained symptoms,** such as anemia suggestive of blood loss, or other symptoms related to their intestines, such as pain, new constipation, or diarrhea, or persistent narrow caliber of stool should get the test immediately. Although the problem is likely something other than cancer, time matters a lot if cancer is present.

**Group 4: A person who has been through the test before and was found to have polyps** needs to be followed up regularly, every two or three years, as recommended by their physician. People who grow polyps *grow more polyps* and, if ignored, these will turn into cancer eventually. They are easily removed during colonoscopy, and regular scoping will remove these very high-risk patients from colon cancer's hit list.

**Group 5: A person who has already had colon cancer needs to remain "in the system."** You know who you are. You may be terrified to go back and let them look again after undergoing surgery and perhaps other wretched treatments. But screening is needed to find any *brand new polyps*, which will be a lot easier to remove than the cancer already treated. Having had cancerous polyps, you're at higher risk to have it again.

## Loving Your Gut

It *might* be possible to lower your risk of colon cancer. But please don't think for one second that acting in a preventive manner gets you or your loved ones off the hook for screening. Get screened on time, because we know of nothing else that lowers your risk very much.

Conventional wisdom has long claimed that a low-fat, high-fiber diet will lower your risk of colon cancer. However, as I write this, the all-important *prospective studies* designed to look at this claim are not showing any effect of dietary fat on colon cancer risk, and the jury is still out on the cancer-reducing effects of fiber.

The fountain-of-youth claims for overpriced antioxidant supplements are nonsense. They have never been shown to have any effect at all. I'm not saying that nothing in our diet can lower the risk of colon cancer. I am saying that nothing has yet been proven to do so. It may turn out that genetics are vastly more important than diet in causing colon cancer, and I have no idea how to change what is passed on to us from our families.

Having said that, there is a lot more to the health of the colon than preventing cancer.

Our epidemic low-fiber diets are almost certain to contribute to two other colon problems: hemorrhoid vein inflammation and diverticulitis. Fiber therapy clearly helps to treat these problems in many people. When I say fiber in this context, I generally mean the part of a plant that cannot be absorbed through our digestive tract. It's typi-

cally made out of carbohydrate molecules joined together in such a way that we just can't break them apart (cellulose), and they remain far too large to pass through the intestinal wall and into our bodies. Because they are carbohydrates, they hold water like a sponge (picture gelatin that cannot be digested), and this is important for the health of our colon.

Over the last 10,000 years or so, man has evolved food preparation into a high art form. Thank you ancestors! The only catch is that in the process we have seriously altered our natural diet. After all, there is nothing actually natural about bread or cheese, or cooking for that matter. We've been "processing" our food for millennia, refining and improving flavors and textures. I'm thrilled about it, but the superb quality of our meals comes at the expense of removing most of that indigestible fiber from our diet.

Our native diet was probably closer to that of a bushman: fruit, nuts, roots, vegetables, bugs, and the occasional animal. Our bodies were designed around predominantly raw plants, so our colon expects a certain amount of indigestible fiber. It relies upon it to function efficiently. Today, we extract and concentrate the nutritional parts of food, the starch, sugars, fats, proteins, and use them alone. Early man didn't use vegetable oil, white flour, granulated sugar, cheese, or sweet creamery butter. These products represent a lot of fiber-less nutrition, so a modern diet means a dramatic drop in the average amount of fiber per calorie.

Bread might be the best thing to happen to our palate, but it's a disaster to our large intestines. Tortillas, French bread, Pita bread, Nan bread, Sponge bread, Bagels, Pasta, Noodles, white rice, you name it, a version of concentrated starch for every culture. Humans relish it. Fat, too, is used in every form possible from olive oil to ice cream. Even salads are smothered in dressings that contain most of the calories on the plate.

The result of eating these foods means we get very little fiber, and the colon winds up with stool that is more concentrated than it was meant to handle. Aside from the obvious, there are some nasty things in the stool. One is a molecule called superoxide. This byproduct of colon chemistry has a nasty habit of destroying other molecules through oxidation—the act of stealing electrons from other "victim" molecules. Such compounds, in high concentrations, wear out the lining of the colon faster than necessary. They require a higher rate of cell division to supply young replacements for damaged cells. However, we only get a finite number of cell divisions before the copies

accrue too many mistakes to work properly. In other words, a concentrated stool ages our colon prematurely.

Fiber bulks up the size of the stool with “solid water,” allowing noxious molecules to spread into a larger volume, thereby becoming more diluted. When it comes to poop, dilution is a good thing. Think of accidentally splashing concentrated bleach on your clothes. First you get a white spot and, after a washing or two, you are left with a hole through the fabric. Yet, when you dilute bleach with enough water, it’s safe to wash your clothes in it. Dilution slows chemical reactions.

Another property of fiber is that it makes things move through your system faster. This cuts down the time that your colon is exposed to irritants. One main function of the colon is to reabsorb most of the water that is pumped into your digestive tract. For that reason, the stool is most solid near the “end of the line,” in the sigmoid and rectum where it sits and waits to evacuate. This is thought to be one of the reasons that more colon cancers occur in this area.

I have no intention of cutting down on Mexican food, and I’m not one bit tempted to dine on steamed bugs. On the other hand, a bran muffin and daily salad are a good start, but they aren’t enough. The simplest way I know to fix the problem is to take a daily supplement of pure fiber. Added to your regular diet, it helps even the score in the calorie/fiber ratio. One of the most widely studied supplements is psyllium husk (one brand name for this is Metamucil). Mixed with a glass of water and chugged down once or twice daily, it does a lot to restore balance to your system. There are other types of fiber supplements available, some that provide a variety of fiber types. Time will tell which is the best choice. For now, I suggest that my patients take the one they find most agreeable.

It’s not surprising that fiber is the treatment of choice for several diseases of the colon. Just as too much sun causes skin cancer, it also causes wrinkles, freckles, and many other skin abnormalities. The same applies to low-fiber diets. The risk for cancer *might* be greater, but the risk for hemorrhoid disease and diverticulitis most certainly are. Diverticula are little pockets, like caves, that form in the inner lining of the colon throughout our lives. They tend to be a trap for things like seeds, nuts and corn kernel husks, causing painful infection and even deadly perforations of the intestine that can spill infected stool into our bellies.

It has been convincingly demonstrated that fiber prevents the growth of new diverticula and helps clean out existing ones. It also

helps prevent thrombosis, blood clots, within the specialized veins in the rectum called hemorrhoids.

Finally, as of this writing, there is strong evidence that a whole aspirin, 325 mg, every day might be associated with lowered colon cancer risk. I recommend daily aspirin for many patients, but the evidence of cancer prevention is not yet definitive. Taking aspirin every day is not without potential for harm, so it should be part of a deliberate health strategy developed with your doctor.

There you have it. Thwarting colon cancer is almost effortless. Show up for a colonoscopy every decade or so. Maybe add fiber to your glass of water every day to prevent other problems. If you do these two things, your odds of staying ahead of the tortoise are excellent.

Colon cancer is the second most common cancer killer in both men and women. If the obstacles you have to getting scoped are your butt, your pride, or your wallet, get over them. This is such a common disease, yet so easy to cure, which means for most people colon cancer qualifies as a really stupid reason for dying.