

Dr. Fred Lee: Prostate Cancer Survivor

<http://www.rochesterurology.urologydomain.com/images/uploaded/rochesterurology/drleestory.cfm>

In 1983, Dr. Fred Lee was a successful radiologist, loving husband and father of five children. After watching a manufacturer's demonstration of an experimental transrectal ultrasound machine, he scheduled a demonstration test on himself. At that time, transrectal ultrasound was so new that no one was able to read the images. However, the salesperson commented that Dr. Lee's images looked different from what was normally seen. This led to the discovery that Dr. Lee had prostate cancer.

X-ray tests did not reveal evidence of cancer spread and Dr. Lee was hopeful of a cure using radioactive seed implant. At that time the procedure was performed by making an abdominal incision. Following a pelvic lymph node dissection radioactive seeds were inserted directly into the prostate. However, several days later Dr. Lee discovered that his lymph nodes which on frozen section were negative were found to contain metastatic prostate cancer. Because of the positive lymph nodes, Dr. Lee underwent an additional course of external beam irradiation to the whole pelvic region with his prostate shielded. Additionally, he stated taking Emcyt which he continues to take to this very day. **Emcyt is a combination drug consisting of estrogen and nitrogen mustard.** Unfortunately in 1986 repeat biopsy confirmed persistence of his prostate cancer. He received an additional course of external beam to just his prostate and well, four courses of hyperthermia. When Dr. Lee was rebiopsied in 1989, 1995 and 1996 no evidence of cancer could be found and his PSA remains extremely low.

With the knowledge that only 50% of men with his stage of disease live 5 years and only 10% live 10 years, Dr. Lee decided to dedicate the time he had left to optimize the detection and treatment of prostate cancer. As the saying goes, "The rest is history." Dr. Lee defined what prostate cancer looked like on transrectal ultrasound his work has led to its widespread acceptance as the preferred method of diagnosing prostate cancer. He was the co-chairman of the American Cancer Societies National Prostate Cancer Detection Project, a multi-institutional study involving over 2000 men. He has written or co-authored over 75 publications, has been visiting professor at numerous institutions, has made countless presentations. Currently, Dr. Lee is the Director of the Crittenton Hospital Prostate Cancer Center in Rochester Hills, Michigan. Since his arrival almost 700 cryoablative procedures have been performed at Crittenton Hospital.

Dr. Badalament: Fred, tell us how you are doing and relate to us your experience with prostate cancer and how it has changed your approach to life?

Dr. Lee: I'm doing fine. I've been taking Emcyt for a long period of time; it's certainly caused a lot of changes in me. By taking estrogens your serum testosterone hits an all time low and I was depressed about the fact that I lost my libido. Not entirely because I had a very wonderful relationship with a very understanding wife. My potency lasted for many years in spite of the fact I had a lot of treatment to my prostate. Eventually the loss of my libido really became something that was not that important to myself and my great wife.

Gandhi said that he could never accomplish what he wanted to unless he could channel the energy of his libido or sex drive. It's great and good because it preserves the race, however, if you have already had the children you wanted what does one do with that energy. You can see if the energy goes the wrong way even when dealing with a person with high ethical or moral standards that this drive is so powerful that even the President of the United States could not control that energy.

Gandhi stated that if he could take that energy and direct it in the proper way he could liberate India. And I felt in some way the treatment of my prostate cancer liberated me from my libido. I had this energy that was mine to be used in any way that I wanted. But first before I could use this energy I had to get over the shock of knowing that here you were, an individual that had a recognition of the self and now that self was so threatened that now it was finite.

I had this sense that I did not accomplish what I wanted in life. Prostate cancer was in my lymph nodes but in the last stages it spreads to the bones. Since it wasn't in my bones, I felt like at least I had some time left. Why was I granted this? All my life I felt like there was something else I should do; I just wasn't satisfied with how things came out in my life. I was a good radiologist and I raised a good family but it didn't seem real.

I participated in a one week retreat with Elizabeth Kubler-Ross (author of "On Death and Dying") and 99 other people; all with a personal problem that was going to lead to our premature demise. During that retreat each of us gave up our egos. We could say in an open sort of way what bothered us. We were supportive. That conference was my first understanding of the essence of what life is. From that time on I decided to devote my remaining days to just working in this whole area of prostate cancer so that we can diagnose it earlier that we were.

A lot of serendipitous things happened along the way. It would happen during periods of contemplation. I would go on long walks and try to absorb nature in a very relaxed way. I said to myself, "Your time is limited on earth, see everything you can just absorb it." During that time nothing would interfere with thoughts that came into you and you could let them free roam in your mind. Things began to fit into place.

Dr. McNeal, a pathologist, wrote about the location of prostate cancer in relationship to what we now call the outer gland . It made a big impact on me. He noted that all these cancers were located on the outside of the prostate and prostate capsule. I knew all the other organs of the body, the kidney, the liver, the breast, and ovaries that every single lesion is dark on ultrasound because cancer are packed together in a relatively solid mass as compared to the background. I felt that if on ultrasound we found something that is dark sitting on the outside of the prostate or on the prostate capsule then that area could be cancer.

One day a Urologic colleague told me about had a patient with a prostate nodule that had a negative finger guided transperineal biopsy. I said to him, "Lets look at him under ultrasound." So that is what we did and we noticed a dark area on the back of the gland. I biopsied the dark area, and guess what, he had prostate cancer. So I knew after my first transrectal ultrasound biopsy that we were on to something.

In the meantime, while in Buffalo visiting my mother over a Thanksgiving weekend, I decided to see Dr. Gerald Murphy for a second opinion on my own cancer. At that time was the chief urologist at Roswell Park Cancer Center. After we talked about my cancer and I started to tell him about my work on transrectal prostatic ultrasound. I showed him ultrasound images of my patients. Dr. Murphy had an interest in transrectal ultrasound and was also instrumental in the development of PSA. He invited me to be followed by PSA and ultrasound. And by the way, Dr. Murhpy said, "Lets have a conference on prostate ultrasound in July". He said that he would invite everyone who is working on prostate cancer at that time. "And you Fred can present you work on how you recognize cancer on transrectal ultrasound."

I began performing ultrasound on radical prostatectomy specimens that were place in a water bath. I then mapped out where the tumor was on ultrasound and compared it to the pathologists findings. We studied about 10 radical prostatectomy specimens and were right on every one of them. We made glass slides of whole mounts (the entire prostate gland) and slides of corresponding ultrasound images. We took these to the conference and changed the minds of the so called experts. When I gave my talk I told the audience that prostate cancer on ultrasound was not a white lesion like most people believed but a dark lesion. The very next doctor had a presentation intended to demonstrate that transrectal ultrasound did not work. He would show a transrectal ultrasound slide and ask me to point out the cancer. Here is the cancer in this dark area", I would say. Sure enough when he showed the next slide which was the pathology slide, I had correctly identified the tumor. That speaker was Dr. Tom Stamey, Chairman of Urology at Stanford University, who shortly thereafter visited me to learn how to read transrectal ultrasound images.

When we got the biopsy gun from Denmark to do transrectal biopsy we knew we could diagnose early cancer. This was a great advantage over doing biopsies through the perineum (the space between the anus and scrotum). On February 15, 1987 our paper was published in Cancer and we were flooded by urologists visiting us to learn how to perform transrectal ultrasound. We put on our first transrectal ultrasound for prostate cancer conference in Detroit later that year and over 800 people showed up. For many years we game an annual conference.

The next hurdle we had to fight was the acceptance of combination hormonal therapy as an adjuvant treatment prior to definitive therapy. That is where Lloyd Ney came in. Our treatment options for prostate cancer are not as good as we think so we should try to weaken the cancer before you use definitive therapy. This is very

controversial and is an area I'm working on when I'm not at the hospital. I am studying two groups treated by radical surgery. One had preoperative combination hormonal therapy the other didn't. At 6 years the group treated with combination hormonal therapy is two times better off than the non-treated group using PSA as the biologic marker.

In 1987 we got very interested in the seed implantation program. I was involved in two studies one with radioactive iodine and the other with radioactive iridium plus hyperthermia, however, our results were disappointing. We also noticed that a substantial number of patients treated with external beam irradiation had a disappointing positive post treatment biopsy rate. Radical surgery was difficult on our patients because of side effects. As a result I then moved to investing cryotherapy. Since I came to Crittenton, we have treated nearly 700 patients with cryoablation. At 5 years, 81% of our T1 and T2 patients and 71% of our T3 and T4 are free of disease.

The prostate cancer patients should know that this disease is not the end of the world. I've been down that path and I will help them along that path. And I will get help from a urologist to be a team to help them. We will explain objectively to them what they have so we can help them decide in a very learned way how we would approach their problem. But, eventually it's their responsibility and we want them to know what the facts are. The vagaries of prostate cancer are not small. I use myself as an example and I should have been gone a long time ago.

Dr. Badalament: Fred, thanks for sharing your story with us. And on behalf of all the prostate cancer patients and their families thanks for your very valuable contributions to the fight against prostate cancer. We all wish you continued good health.