

RADIATION PROCTOPATHY

PROTON RADIATION TREATMENT EFFECTS ON BOWEL FUNCTION

We don't talk about it in the lobby and hardly at all in the patient's dressing room because it's an indelicate subject. Although the doctor tells us about it, the details don't register because we've got other things on our mind. Erectile dysfunction and urinary incontinence were higher on my list and bowel changes were last. However we believe it is important for prospective patients to listen to the Proton Therapy Center (PTC) doctor carefully as he tells you about how stray radiation may impact your lower tract. Understanding the expected effects on your body and how long the effects may last is critical to being an informed and satisfied patient.

This "*one pager*" is about the effects of radiation on that particular area of your body called the rectum, the lower section of your bowel system. It is a section of the lower tract which lies in adjacent to the prostate gland and "It's about eight inches long and serves, basically as a warehouse for poop. It hooks up with the sigmoid colon to the north and the anal canal to the south. It also has little shelves called transverse folds. These folds help keep the stool in place until you're ready to go to the bathroom." [Read More](#) To minimize the effects of radiation in this vital area the PTC uses a [balloon](#) to position the gland. It is inserted in the rectum and filled with about 100 cc of water to lift and position the prostate gland against the pelvis and also serves to move the wall of the colon section out of the field. In radiation planning, where the isoplots of radiation treatment are calculated specifically for your body, great care is taken to minimize radiation to the area. You do receive some amount to that area and normal body tissues vary in their response to the beam. Some patients are more sensitive than others I think in part due to age and physical conditioning may be factors.

You will be told that the symptoms can occur in 5-8% of the patients treated, but experience is showing it may be 50% lower. A recent survey by Robert Marckini (ProtonBob) of 1520 members in the Brotherhood of the Balloon group showed 9 % reported "bowel changes." [BobTales Survey May 2009](#)

Radiation exposure damages to some degree the mucosal lining of the rectum and can be divided in two categories: early and late. Early side effects can happen during and within the 8 weeks of therapy or shortly thereafter and the symptoms may include diarrhea, rectal urgency, tenesmus, (pain on passing stools), diarrhea, and uncommonly bleeding. It happens infrequently and most times is temporary and resolves itself soon after radiation treatment is completed. If you experience these symptoms tell your doctor who will probably recommend some simple measures such as maintaining a moderate diet with enough fiber, use of hydrocortisone suppositories, hydrocortisone foam, stool softeners and special enemas (carafate) may accelerate healing.

The late side effects are longer term or as the doctors call it "a delayed onset". These may occur one time or be episodic or not occur at all. The first symptoms can occur 6-14 months following treatment but can also occur anytime post radiation up to some years after exposure. The majority of cases may eventually abate without significant intervention. The conservative treatment measures to be considered are diet, stool softeners, hydrocortisone suppositories or foam, and carafate suspension enemas. As a last resort a procedure called argon plasma coagulation (which uses electrified argon gas) can be used and should be performed only after serious consultation with the Center's oncologists. It should be done by the "best" gastroenterologist you can find. Like every thing in life, especially in surgery and medical treatments, the results you get completely depend "under whose hands" the work is done. "Direct-contact" or "probe" cauterizations should be avoided along with any unnecessary biopsying of the anterior rectal wall.

ProtonPals is simply an information sharing network of patients. ProtonPals hopes to inform, encourage and help patients through shared knowledge. Members are not doctors so more serious concerns should be directed directly to your doctor. ProtonPals also desires to promote the University of Texas M. D. Anderson Proton Therapy Center as for virtually everyone it has been a very positive if not life saving experience.

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The other item to be informed about is - just because you expect your rectal bleeding to be caused by the radiation, make sure that knowing that does not get in the way of finding and treating possible separate conditions. Colorectal conditions that can occur to our age matched population. After all we are predominately older men and no different from the general population. I expect that's why colonoscopies are now a prerequisite to being admitted to rule out any other colorectal condition before radiation. If you're experiencing these symptoms it's best to make sure you don't have a coexistent disease that's causing the symptoms. [\(Read More\)](#)

Also consider reading the American Cancer Society document, [Understanding Radiation Therapy: A Guide for Patients and Families](#)

Some studies have shown that anti-oxidants were effective in significantly reducing chronic side effects. In one trial, individuals took 400 IU of Vitamin E, plus 500 mg of Vitamin C three times a day for 8 weeks and most reported symptom improvements. Other studies have suggested a benefit to Vitamin A. [\(Read more about the studies\)](#)

However, please do not take these vitamins without discussing it with your radiation oncologist first.

Of the ProtonPals members (around 370 in May 2009) there have been three members who contacted us with chronic side effects. Two have had the side effects for months and ended up opting for APC treatment. One member has commented below and both will be glad to handle questions from you. Contact us for their email addresses.

If you're experiencing these side effect symptoms please let us know how are you doing now and would you still recommend proton therapy? How long did it take you to return to where you were before treatment? Please send us your input. Send your reply to Joe Landry jelandry@sbcglobal.net or if you receive this by e-mail simply click reply to Joe Landry. We are looking for comments on how you function either during treatment or well after. You can provide "your first name, e-mail address (optional) and completion date" or say "anonymous and completion date". Also indicate if you had proton radiation only (P) or proton and hormonal therapy (PH). Always put your completion date and let us know if you want us to post your name and contact information on the web-site for the members use. Please be brief.

PATIENT COMMENTS

Almost 9% indicated some change in bowel function after treatment. Most in this category reported some temporary rectal bleeding that resolved itself over time. A few reported some temporary bowel urgency or more frequent bowel movements for some number of months after treatment.

One individual who had cryotherapy for a cancer recurrence after proton therapy reported serious, grade 4 gastrointestinal complications. Patient survey. bobmarckini@protonbob.net [BobTales May 2009](#) .
(Note: I'm told by my radiation oncologist that cryotherapy is not a benign treatment and there can be damage to the urethra, bladder, and/or rectum. JEL)

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I had ONE instance of very minor rectal bleeding, about six months after completing PBRT. I have heard of similar instances at various times within the first year or so following treatment. This type of minor bleeding is one of the more common side effects, and I purposefully would grade it as a very minor worry. It usually is self limiting, but if it continues or is heavy, then certainly one should seek medical attention. Fuller Jones, Completion 2007 [ProtonInfo Forum](#)

I have had some rectal bleeding, but, I attribute it to hard stools as I have this issue from time to time. Therefore, I make sure to drink more water, and eat my salads. T.R. MDACC PTC-H Completion April 2009

I had very few occurrences of blood coated stools on bowel movements and delayed onset of mucous formation. Since we hadn't talked about these side effects in our group, I was surprised and thought it was caused by what I was eating like almonds and nuts. I went down the trail of learning about bowel syndrome and colitis but learned the side effect can happen with the proton therapy. Joe L. MDACC PTC-H Completion April 2007

I started bleeding an average of one teaspoon a day 6 months after the end of therapy. Believe me that looks a lot. I have been bleeding for almost six months on an almost daily basis. At its worst it was 3 or 4 teaspoonfuls in one day. Some days were very light but most were heavy. The bleeding was not painful. My oncologist started me on stool softeners and a diet rich in fruits and vegetables, then hydrocortisone suppositories and most recently hydrocortisone foam. My family physician insisted that I see a gastroenterologist. Just last Tuesday May 19th I had a colonoscopy with Argon Plasma Coagulation. I regret that decision. I think the GE went wild with the APC gun. I should have waited longer for the bleeding to clear up; it was just beginning to stop before I had the procedure. Now my rectum is very painful and shows signs of taking a while to heal. I was told by my oncologist that rectal bleeding only affects 5-8% of patients. I have not heard of any as severe as mine. You may give my e-mail address to R.C. and any other patient who has the problem. A. M. MDACC PTC-H Completion June 2008. In order to get contact information for Mr. A.M. send note to <mailto:jelandry@sbcglobal.net>.

From a personal perspective, G. experienced three or four episodes of rectal bleeding beginning at just short of a year of completing his proton treatment. He had the bleeding checked out via sigmoidoscopy, and the doctor saw a small area of tissue that showed some radiation effect. The bleeding has stopped. He is now a little over two years out. Loma Linda's information at the time Gregg was there stated that about 30% of the men experience mild rectal bleeding that is self-resolving in the vast majority of cases. G. Loma Linda (ProtonInfo.) Completion 2007.

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Rectal toxicity from proton therapy is usually minimal. Some do experience minor rectal bleeding about six months [to a year] following treatment, as the irritated small rectal blood vessels go through the healing process. This may be exacerbated by "rough" foods." [We had one member who had a bit more bleeding, and since it was more than expected it was a frightening experience and caused a trip to the ER. Here is what they found out:

"We have just come back from the ER. The PA on duty knew a lot about protons, which was a surprise. He had worked in a urology clinic. He concluded that because [my husband] has been eating my Special K lunch bars recently which are very crunchy with hard nuts & other scratchy ingredients, and that because it had been six months, which caused the bleed."

A "soft" or liquid diet was recommended for a few days, and this solved the problem. Related by Fuller Jones, [ProtonInfo Forum](#) Loma Linda 2007

As for side effects, there were none until halfway through treatment, when chronic diarrhea set in and didn't let up till I was nearly done. (At that time the standard treatment was 42 sessions over 8 weeks.) For reasons unknown it took several days to convince Dr. Lee that this miserable condition (which was clearly shown in the paperwork as a possibility) was a result of my treatment, and several more days before the pills he prescribed got it under control (by which time I'd lost 5 pounds). It was about a week after treatment ended that my bowels finally returned to normal. Between the balloons and the runs, proton was quite literally a pain in the ass. Overall, though, I'd rather have gone through that than to have sacrificed my sex life. (No one prepared me for the radical reduction in my ejaculate, which I suppose should have been an obvious expectation; but that's mostly a psychological issue. Sensually my orgasms are better than ever. More information than you want, perhaps, but at your age definitely something to consider.) I understand the treatment is shorter these days, and of course everyone reacts differently to any procedure. A ProtonPal. MDACC PTC-H Completion May 2007.
