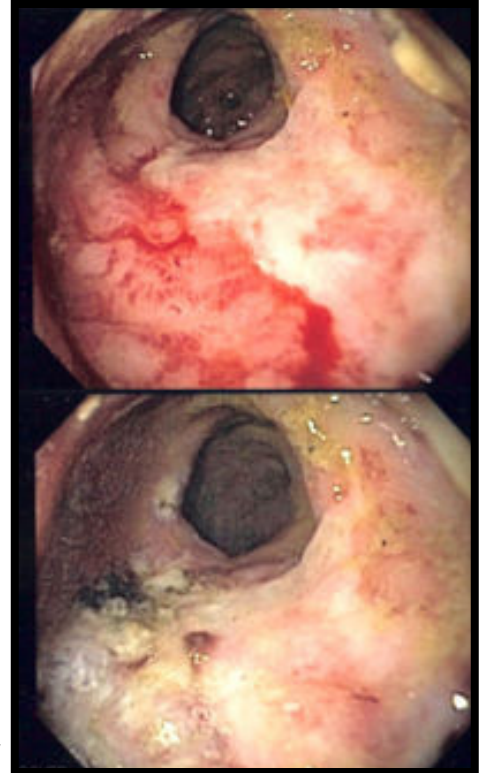


## Radiation proctitis

**Radiation proctitis** (and the related **radiation colitis**) is inflammation and damage to the lower parts of the colon after exposure to x-rays or other ionizing radiation as a part of radiation therapy. Radiation proctitis most commonly occurs after treatment for cancers such as cervical cancer, prostate cancer, and colon cancer. Radiation proctitis involves the lower intestine, primarily the sigmoid colon and the rectum. Radiation proctitis can occur at two times after treatment:

**Acute radiation proctitis** — symptoms occur in the first few weeks after therapy. These symptoms include diarrhea and the urgent need to defecate, often with inability to do so (tenesmus). Acute radiation proctitis usually resolves without treatment after several months, but symptoms may improve with butyrate enemas. This acute phase is due to direct damage of the lining (epithelium) of the colon.

**Chronic radiation proctitis** — symptoms may begin as early as several months after therapy but occasionally not until several years later. These symptoms include diarrhea, rectal bleeding, painful defecation, and intestinal blockage. Intestinal blockage is a result of narrowing of the rectum which blocks the flow of feces. Connections fistulae may also develop between the colon and other parts of the body such as the skin or urinary system. Chronic radiation proctitis occurs in part because of damage to the blood vessels which supply the colon. The colon is therefore deprived of oxygen and necessary nutrients. Symptoms such as diarrhea and painful defecation may be treated with oral opioids and stool softeners, respectively. Complications such as obstruction and fistulae may require surgery. Several other methods are under development as of 2005 to lessen the effects of radiation proctitis. These include sucralfate, hyperbaric oxygen therapy, corticosteroids, metronidazole, and argon plasma coagulation



Endoscopic image of radiation proctitis before and after therapy with argon plasma coagulation.