

# Cryotherapy (Cryoablation)

Printed from <https://www.cancerquest.org/patients/treatments/cryotherapy-cryoablation> on 11/23/2024



Cryotherapy or cryoablation (Cryo is from the Greek for frost or extreme cold. Ablation refers to removal or elimination.) is the use of extreme cold to kill tumor cells. A probe containing an extremely cold fluid is placed inside/on the area to be treated and the tumor (or abnormal growth) is frozen. Cryotherapy can be performed during a open (fully invasive) surgery or the probes can be inserted through the skin in a minimally invasive procedure. The liquid does not enter the tumor, but the rod is cold enough to freeze the tumor.



**Cryotherapy freezes and kills cancer cells and any nearby normal cells.**



**The cold liquid is not actually placed into the tumor. It is inside a rod. The rod may have to be inserted and removed several times.**

Cryotherapy is used to treat several different pre-cancerous and cancerous conditions, including: kidney cancer<sup>1</sup> <sup>2</sup> lung cancer<sup>1</sup>, esophageal cancer<sup>3</sup>, liver cancer<sup>4</sup>, cervical intraepithelial neoplasia (CIN)<sup>5</sup>, prostate cancer<sup>6</sup>, retinoblastoma<sup>7</sup> and skin neoplasms<sup>8</sup>.

- <sup>1 a b</sup> Gillams A. Tumour ablation: current role in the kidney, lung and bone. *Cancer Imaging*. 2009 Oct 2;9 Spec No A:S68-70. [[PUBMED](#)]
- <sup>2</sup> Kunkle DA, Kutikov A, Uzzo RG. Management of small renal masses. *Semin Ultrasound CT MR*. 2009 Aug;30(4):352-8. [[PUBMED](#)]
- <sup>3</sup> Halsey KD, Greenwald BD. Cryotherapy in the management of esophageal dysplasia and malignancy. *Gastrointest Endosc Clin N Am*. 2010 Jan;20(1):75-87, vi-vii. [[PUBMED](#)]
- <sup>4</sup> Awad T, Thorlund K, Gluud C. Cryotherapy for hepatocellular carcinoma. *Cochrane Database Syst Rev*. 2009 Oct 7; (4):CD007611. [[PUBMED](#)]
- <sup>5</sup> Martin-Hirsch PP, Paraskeva E, Bryant A, Dickinson HO, Keep SL. Surgery for cervical intraepithelial neoplasia. *Cochrane Database Syst Rev*. 2010 Jun 16;6:CD001318. [[PUBMED](#)]
- <sup>6</sup> Pisters LL. Cryotherapy for prostate cancer: ready for prime time? *Curr Opin Urol*. 2010 May;20(3):218-22. [[PUBMED](#)]
- <sup>7</sup> Lin P, O'Brien JM. Frontiers in the management of retinoblastoma. *Am J Ophthalmol*. 2009 Aug;148(2):192-8. Epub 2009 May 24. [[PUBMED](#)]
- <sup>8</sup> Terushkin V, Braga JC, Dusza SW, Scope A, Busam K, Marghoob AA, Gill M, Halpern AC. Agreement on the Clinical Diagnosis and Management of Cutaneous Squamous Neoplasms. *Dermatol Surg*. 2010 Aug 4. [Epub ahead of print [[PUBMED](#)]]