A short survey is given of the historical development and the physical basis of ozone therapy. Ozone is used in medicine as well as in other spheres. Papers reporting good results of ozone treatment in carcinoma seemed of particular interest. The efficacy of ozone as an adjuvant to the irradiation of carcinosarcomas of rats was confirmed by us. On account of this fact ozone was introduced by us as an adjuvant to the irradiation of women with gynaecological cancer and appeared to give good results. The mechanism of action of ozone is not yet fully clarified and several theories are discussed. Investigations are currently being undertaken in respect to the behaviour of several substances in the organism during ozone therapy.