Kidney and other urinary tracts, except the bladder, represent about 3% of all cancers in men and 1.8% in women in Switzerland. Mortality from kidney cancer is high and survival is low, about 56% for 5-year relative survival. Renal cell carcinoma accounts for 80 to 85 percent of all kidney cancers.

Overall, the etiological mechanisms of kidney cancer remain poorly understood. For renal cell carcinoma, major known risk factors are cigarette smoking, phenacetin intake (now banned 20 years ago), obesity, hypertension and endstage of renal disease. Some data suggest that trichloroethylene exposure is a risk factor for renal cell carcinoma.

Kidney cancer is most commonly sporadic, but it can also be hereditary. Six clinically distinct types of inherited kidney cancer have been identified so far. Approximately 30 percent of kidney cancers are incidentally detected because of widespread and increasing use of computed tomography (CT) for other medical indications.

There is some evidence that earlier detection leads to better outcomes in kidney cancer, although few screening studies have been conducted. However, techniques for early diagnosis of these cancers are extremely limited and treatment fails in 95 percent of patients with advanced disease.

In localized kidney cancer, radical nephrectomy remains the standard of care, but minimally invasive and nephron-sparing surgical techniques are becoming widely used. Early successes with radiofrequency and cryosurgical ablation of small kidney cancer are being reported.

Despite the severe limitations of existing therapies for kidney cancers, the number of survivors of these diseases is increasing. Factors influencing quality of life in these people are largely uninvestigated.