

Kidney Cancer Fact Sheet

Kidney Cancer

- Kidney cancer is a broad term applied to a group of cancers that originate in the cells of the kidney. The kidneys are a pair of organs behind the abdominal cavity. Kidneys are vital organs that, among other important functions, remove waste from the blood in the form of urine, make a protein that stimulates red blood cell production and help regulate blood pressure.
- There are many types of kidney cancer. The most common type is renal cell carcinoma, which accounts for 90 percent of cases. Renal cell carcinoma includes many subtypes including the most common, clear cell renal cell carcinoma, and various other rarer subtypes. Knowing the sub-type of kidney cancer is important to help determine the right treatment option and long-term surveillance plan for the individual patient.
- Kidney cancer usually does not have early symptoms and there are currently no screening protocols. As a result, in developed countries, 25-30 percent of the time kidney cancer is diagnosed at an advanced stage that includes metastasis.ⁱ In the developing world, sadly the percentage of diagnosis at an advanced stage is significantly higher.

Kidney Cancer Around the World

- In 2018, it was estimated that there were 403,000 new cases of kidney cancer diagnosed worldwide. This accounted for 2.4 percent of all new cancer cases.ⁱⁱ
- The incidence of kidney cancer has been increasing since the 1970s. However, worldwide the mortality rate has been stable since the 1990s.ⁱⁱⁱ
- For regional kidney cancer statistics, please visit the [local kidney cancer organisation](#) in IKCC's network.

Factors that Contribute to Kidney Cancer

Like most other cancers, kidney cancer is caused by mutations that occur over time in the cells. However, there are several known factors which can contribute to the risk of the disease:

- **Smoking:** Smoking increases the risk of developing kidney cancer
- **Sex:** Men are twice as likely to be diagnosed with kidney cancer as women
- **Body measurements:** Being very overweight or obese has been associated with an increased risk of kidney cancer. As well, greater height is associated with increased risk, independent of weight
- **High Blood Pressure:** High blood pressure (or hypertension) increases the risk of kidney cancer
- **Chronic Kidney Disease:** Chronic kidney disease increases the risk of kidney cancer
- **Exposure to toxic compounds:** Regular exposure to certain carcinogenic chemicals can increase the risk of kidney cancer.

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The Global Collaboration Of National Patient Groups Supporting Those Affected By Kidney Cancer.
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Genetics and Kidney Cancer

- Approximately 5% of kidney cancer cases (1 in 20) are linked to family genetics. Of the known genetic syndromes that have been connected to kidney cancer, the most common is called von Hippel-Lindau syndrome (VHL).
- Researchers continue to study the genomic markers on kidney cancer tumours to better understand the disease and develop screening protocols for those at higher risk.

For more information about kidney cancer, contact Julia Black at julia@ikcc.org.

ⁱ Charbonneau C (2008). Epidemiologic and socioeconomic burden of metastatic renal cell carcinoma (mRCC): a literature review. *Cancer Treat Rev.* 34(3):193-205. <https://doi.org/10.1016/j.ctrv.2007.12.001> PMID:18313224

ⁱⁱ Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A (2018). Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality world-wide for 36 cancers in 185 countries. *CA Cancer J Clin.* 68(6):394—424. <https://doi.org/10.3322/caac.21492> PMID:30207593

ⁱⁱⁱ Charbonneau C (2008). Epidemiologic and socioeconomic burden of metastatic renal cell carcinoma (mRCC): a literature review. *Cancer Treat Rev.* 34(3):193-205. <https://doi.org/10.1016/j.ctrv.2007.12.001> PMID:18313224