
Risk Factors for Rhabdomyosarcoma

they work in very early life to control cell growth and development.

Exposures before birth

Some studies have suggested that being exposed to x-rays before birth might be linked with an increased risk of RMS in young children. Parental use of drugs such as marijuana and cocaine has been suggested as a possible risk factor as well. But the studies that have found these links have been small, and more research is needed to see if these factors are truly linked to RMS.

References

Okcu MF, Hicks J. Rhabdomyosarcoma in childhood and adolescence: Epidemiology, pathology, and molecular pathogenesis. UpToDate. Accessed at www.uptodate.com/contents/rhabdomyosarcoma-in-childhood-and-adolescence-epidemiology-pathology-and-molecular-pathogenesis on May 21, 2018.

Wexler LH, Skapek SX, Helman LJ. Chapter 31: Rhabdomyosarcoma. In: Pizzo PA, Poplack DG, eds. *Principles and Practice of Pediatric Oncology*. 7th ed. Philadelphia, Pa: Lippincott Williams & Wilkins; 2016.

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What Causes Rhabdomyosarcoma?

- [Gene changes affecting RMS](#)
- [What causes gene changes?](#)

The cause of most cases of rhabdomyosarcoma (RMS) is not well understood, and there are very few known [risk factors](#) for this type of cancer. But researchers are learning how normal cells become cancerous because of certain changes in their DNA.

DNA is the chemical in each of our cells that makes up our **genes**, which control how our cells function. Genes are packaged in chromosomes (long strands of DNA in each cell). We normally have 23 pairs of chromosomes in each cell (one set of chromosomes comes from each parent). We usually look like our parents because they are the source of our DNA. But DNA affects more than how we look.

Some genes control when our cells grow, divide into new cells, and die:

- Genes that help cells grow, divide, or stay alive are called **oncogenes**.

Genes that slow down cell division or make cells die at the right time

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Can Rhabdomyosarcoma Be Prevented?

The risk of many cancers that typically occur in adults can be reduced with certain lifestyle changes (such as staying at a healthy weight or quitting smoking), but at this time there are no known ways to prevent most cancers in children.

The only known [risk factors](#) for rhabdomyosarcoma (RMS) – age, sex, and certain inherited conditions – can't be changed. There are no proven lifestyle-related or environmental causes of RMS, so at this time there is no known way to protect against these cancers.

References

Okcu MF, Hicks J. Rhabdomyosarcoma in childhood and adolescence: Epidemiology, pathology, and molecular pathogenesis. UpToDate. Accessed at www.uptodate.com/contents/rhabdomyosarcoma-in-childhood-and-adolescence-epidemiology-pathology-and-molecular-pathogenesis on May 21, 2018.

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Written by

The American Cancer Society medical and editorial content team
(<https://www.cancer.org/cancer/acs-medical-content-and-news-staff.html>)

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