



## What causes Childhood cancer?

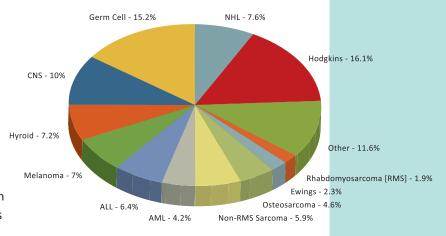
Feelings of guilt often come up soon after parents have been informed that their child has cancer. They may question what they might have done that caused their child to have this life-threatening disease.

Could this be "payback" for past mistakes? Has their smoking caused the cancer? Mothers sometimes wonder if something they did or failed to do during pregnancy might have made a difference. Those with a family history of cancer might think that one parent or the other has "bad" genes. They may question the safety of where they live, their water supply, or wonder about toxins in the environment or in their home. They may wonder whether something related to their jobs might have caused the cancer.

It's normal to try to understand the causes of a problem, but the fact is that right now no one knows what causes most cancers in children. Parents are not at fault for their child's cancer. A very small percentage (5 percent) of childhood cancers are caused by an inherited mutation (a genetic mutation that can be passed from parents to their children). For example, 25 to 30 percent of cases of retinoblastoma, a cancer of the eye that develops mainly in children, are caused by an inherited mutation. Since specific causes have not been found for each individual type of childhood cancer, the way to prevent childhood cancer is still unknown. Cancers start because of a mistake in copying DNA when normal cells are dividing and growing\*.

### Research

In recent years, scientists have made great progress in understanding how certain changes in our DNA can cause cells to become cancerous. Most childhood cancers are not caused by inherited DNA changes. They are the result of DNA changes that happen early in the child's life, sometimes even before birth. Every time a cell prepares to divide into 2 new cells, it must copy



its DNA. This process isn't perfect, and errors sometimes occur, especially when the cells are growing quickly. This kind of gene mutation can happen at any time in life and is called an acquired mutation\*\*.

- \* http://www.cancer.org/treatment/childrenandcancer/whenyourchildhascancer/childrendiagnosedwithcancerdealingwithdiagnosis/children-diagnosed-with-cancer-dealing-with-diagnosis-how-parents-react
- \*\* http://www.cancer.org/cancer/cancerinchildren/detailedguide/cancer-in-children-risk-factors-and-causes



# How common is childhood cancer?

Each day, the parents of approximately 700 kids will hear the words "your child has cancer." Across all ages, ethnic groups and socio-economics, this disease remains the number one cause of death by disease in children. Despite major advances – from an overall survival rate of 60 percent just thirty years ago to nearly 90 percent today in some countries, for many rare cancers, the survival rate is much lower. Furthermore, the number of diagnosed cases annually has not declined in nearly 20 years\*.

- 12% of children diagnosed with cancer do not survive.
- Children's cancer affects all ethnic, gender and socio-economic groups.
- 60% of children who survive cancer suffer late effects such as infertility, heart failure and secondary cancers.

### How to live with late effects?

Today, because of advances in treatment, more than 8 out of 10 children treated for cancer survive. But the treatments that help these children survive their cancer can also cause health problems later on. These health problems are side effects and late effects: Side effects appear during or just after treatment and can go away a short time later. Some health problems may not go away or may not show up until months or years after treatment and are called late effects. Most late effects are caused by chemotherapy or radiation. Major surgery can also lead to late effects. Because more children with cancer are now surviving into adulthood, their long-term health and these late effects have become a focus of care and research.

After successful cancer treatment, many childhood cancer survivors feel that, although they are glad it is over, they also wonder what comes next. As a result of the different types of cancer and possible late effects, survivors of childhood cancer are, by no means, a homogeneous group. However, what they do share are, to some extent, the associated barriers they are facing when returning to a 'normal' life, especially working life, which is characterized by speed, time pressure and compulsion to perform.



\* http://curesearch.org/Childhood-Cancer-Statistics









With Create your Future we want to provide childhood cancer survivors with individual career support in order to help them find a career perspective which is realistic, takes into account the health restrictions, but – most importantly - also builds on and enhances existing strengths and competences.

In Create your Future a bunch of experts from across Europe come together to develop a comprehensive career counselling programme for childhood cancer survivors that takes into account the special needs, stresses and strains of the target group. Additionally, a training curriculum for adult educators, who want to provide career counselling to survivors, is being devoloped.

We don't only want to share with you our thoughts, we are also very interested in what you have to say! If you want to share something with us within the Create your Future E-zine just let us know. Simply send us an e-mail with your idea for an article to a.dimitrova@catro.com and we will get back to you as soon as possible.

Your article can evolve around anything related to childhood cancer. Before starting your article please get in contact with us and we will let you know the details for publishing your article in our E-zine.





The Create Your Future E-zine is very reader-oriented. For us this means we want to improve our E-zine with each issue. Therefore we would be happy to receiving your feedback on our articles.

If you have a topic you are very interested in, just let us know too; we will write an article about it and incorporate it in one of our next E-zines.

For any suggestions, questions or feedback we are available under this email-address: a.dimitrova@catro.com

This project is funded by the European Commission and will be implemented in Bulgaria, Austria, Spain and Greece.

