

## Childhood leukemia can be inherited, gene study shows

**Aşağıdaki metni okuyunuz ve koyu renkli kelimenin anlamını sözlük kullanmadan tahmin etmeye çalışınız.**

Scientists say they have discovered two genetic variants, which show that both (1) **susceptibility** and survival of childhood leukaemia can be (2) **inherited**, according to a study published in the journal Blood. Researchers from The Institute of Cancer Research in London say the discovery could lead to new drugs for children who do not (3) **respond** well to current treatments for the disease. Childhood (4) **acute** lymphoblastic leukaemia (ALL) is the most common cancer in children and teens, occurring when the bone marrow makes too many immature lymphocytes - a type of white blood cell. Onset is most common between 2 and 4 years of age. For the study, the researchers analysed the genomes of more than 1,500 children with leukaemia, alongside 4,500 healthy children. Results of the analysis (5) **revealed** a strong link between two common single nucleotide polymorphisms (SNPs) - "copying errors" in DNA - with susceptibility to leukaemia. The researchers say that one of the SNPs, called rs3824662 and found in the gene GATA3, was linked to a tumour subtype known to have two-fold increased rates of relapse and poorer (6) **overall** survival. Richard Houlston, professor of molecular and population genetics at The Institute of Cancer Research and lead author of the study, told Medical News Today: "These findings are very significant because they provide additional evidence for inherited susceptibility to developing childhood acute lymphoblastic leukaemia. Moreover, one of the SNPs is also linked to the risk of development a specific form of ALL, which has a poor prognosis. This finding provides new (7) **insights** into how ALL develops." According to the American Cancer Society, childhood leukaemia survival rates have greatly increased over time, and a 5-year survival rate for ALL is now more than 85%. However, the researchers add that although treatments for the disease have come a long way, there are still a number of patients who do not respond well to them. "These findings provide further insights into the genetic and biological basis of inherited genetic susceptibility to childhood acute lymphoblastic leukaemia," says Chris Bunce, research director at Leukaemia and Lymphoma Research, who funded the study. "By understanding how different genetic variations (8) **determine** cancer subtype, we can (9) **tailor** treatment accordingly," he adds. Prof. Houlston says: "In the long term, the knowledge about the genes and pathways key to the development of ALL is likely to be highly informative in designing novel therapies and in tailoring patient treatment." A recent study, also from The Institute of Cancer Research, identified the first mutations within a mother's womb that lead to the onset of leukaemia, which they said could lead to the development of new treatments. Scientists from St. Jude Children's research Hospital recently revealed they have (10) **identified** a protein that certain cells at high risk for acute lymphoblastic leukaemia need to survive, leading to a new strategy for killing tumour cells.

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|----------------|----------------|--------------|---------------|-------------------|
| 1- A) strength | B) opposition  | C) hostility | D) drawback   | E) vulnerability  |
| 2- A) central  | B) ordinary    | C) insincere | D) congenital | E) aware          |
| 3- A) reply    | B) counter     | C) splash    | D) refute     | E) modify         |
| 4- A) tolerant | B) luxuriant   | C) severe    | D) severe     | E) severe         |
| 5- A) covered  | B) suppressed  | C) inhibited | D) shown      | E) marched        |
| 6- A) explicit | B) unambiguous | C) doubtful  | D) remarkable | E) general        |
| 7- A) concepts | B) visions     | C) surprises | D) disbeliefs | E) hallucinations |
| 8- A) deepen   | B) expand      | C) change    | D) label      | E) define         |
| 9- A) pretend  | B) imagine     | C) customise | D) diminish   | E) devise         |
| 10- A) found   | B) enriched    | C) proceeded | D) continued  | E) launched       |

Answer Key: 1-E 2-D 3-A 4-C 5-D 6-E 7-B 8-E 9-C 10-A