

TP53 gene: What You Need to Know

What does it mean to test positive for a TP53 gene mutation?

Mutations in the *TP53* gene are linked to a cancer predisposition condition called Li-Fraumeni syndrome (LFS) or LFS-like syndrome.

What is my risk for cancer if I have a TP53 mutation?

If you have a *TP53* mutation, you have an increased risk to develop cancer at a young age, two or more separate cancers, and rare cancers. The following risks have been quoted for individuals with a *TP53* mutation and the classic form of LFS:

- The risk of developing one of these cancers by age 30 is 50%.
- The risk of developing one of these cancers by age 70 is 90%.
- The risk of developing a 2nd cancer is 15-57%.

What type of cancer am I more likely to develop if I have a TP53 mutation?

The *TP53* gene is important for preventing cancer in many different parts of the body. Therefore, individuals who have a mutation in this gene are at risk to develop a number of different types of cancer. The types of cancer that are most often linked with a *TP53* mutation are:

- Sarcoma
- Breast cancer
- Brain tumors
- Acute leukemia
- Adrenal cortical cancer

Many other types of cancer have also occurred in families with *TP53* mutations.

Additionally, other family members are at risk to have the mutation.

What is the chance that my family members will have a *TP53* mutation if I test positive? There is a 50% chance that a person with a mutation will pass it on to each of his/her children. In most cases, brothers and sisters of a person with a mutation have a 50% chance to have the mutation.

Handout: TP53 Version Date: 2017