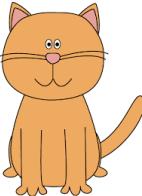
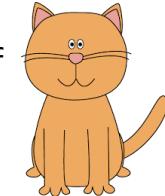


Variants of Uncertain Significance (VUS)

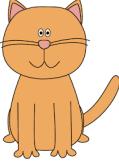
Sometimes, mutations or “spelling errors” occur in your DNA. This can sometimes change the meaning of the DNA which can affect your body.

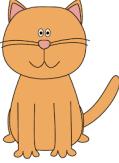
Let's use the spelling of  to help understand how these errors work.



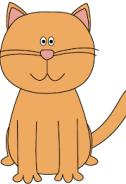
Normally, this animal's name is spelled C-A-T.

Sometimes, a person might misspell it K-A-T.

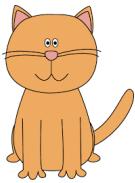
Although spelling it with a K is technically wrong, you can still tell that they are referring to a .

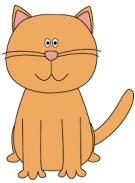


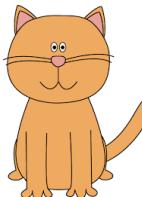
In genetics, sometimes the strand of DNA is also “misspelled,” but like this example, the meaning doesn’t change. This is “benign,” which means that the spelling error is not harmful and will not cause a genetic disorder.

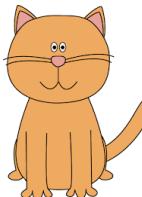
Other times, someone might misspell  as R-A-T.



This time, the meaning of the word has changed. Instead of referring to a  it refers to a .

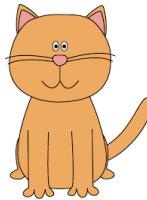


This can cause a problem if the person wants to refer to a .



This can also happen with DNA, where the “spelling error” completely changes the meaning. This can be “pathogenic,” which means that this spelling error can cause a genetic disorder.

Other times, the spelling errors are not so understandable. If



is spelled C-R-T, C-E-T, or C-I-T, it is unclear what the person spelling the word is referring to.

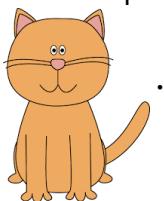
This can also happen in genetics. Sometimes geneticists don’t know yet how a “spelling error” can affect the meaning of your DNA and therefore if it causes genetic disorders or not. These spelling errors are called “Variants of Uncertain Significance.”

After some studies are done, scientists may know more about certain variants. For example, scientists may decide that C-E-T most likely means .



In DNA, this means that the variant is “likely benign,” or likely to not cause disease.

Other variants might be reclassified as “likely pathogenic.” For example, scientists may decide that C-I-T is not likely to refer to a



This means that the variant is likely to cause a genetic disorder.



What Does that Mean for My Diagnosis?

If you get a test result back that says you have a Variant of Uncertain Significance, that means that doctors don't know yet if your "spelling error" causes a specific genetic diagnosis. This doesn't mean you have a disease, but it also doesn't mean that you are fine. Doctors simply don't know. Doctors will use family history and symptoms to address your current medical concerns. In the future, doctors may know more about your variant.

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