

## 43. Interpreting FVLeiden tests

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**Q: "On my test results ("positive for factor V Leiden") it does not state whether I am hetero or homo. Would this be a separate test, or would they be on my doctor's information?"**

A: If the genetic test was done the results are on the same report. If the APC resistance test was done the interpretation has potential pitfalls.

There are 2 ways to test for factor V Leiden: (1) a genetic test, and (2) the APC-resistance test (see also [Q/A 31](#)). The genetic test will indicate whether a patient is heterozygous or homozygous or does not have factor V Leiden. These reports are sometimes difficult to read. I have come across one physician who misread a report and thought the patient had factor V Leiden when the patient didn't. The report may say, for example:

- "wild type/wild type", meaning that the patient does not have factor V Leiden
- "abnormal/normal", meaning that the patient has one normal and one abnormal gene, i.e. is heterozygous
- "pos/neg", " ", meaning that the patient has one normal and one abnormal gene, i.e. is heterozygous

The APC-resistance test reports a number (APC-ratio), which either falls into the normal or abnormal range. If it is normal then the patient does not have factor V Leiden and no follow-up genetic test is needed. If the APC-ratio is abnormal the patient may have factor V Leiden. If the APC-ratio is only slightly low then that may suggest heterozygous factor V Leiden; a very low APC-ratio may suggest homozygous factor V Leiden. However, reasons other than factor V Leiden may cause abnormal APC-ratios. An abnormal test should, therefore, always be followed by the genetic test. The APC resistance test is typically less expensive than the genetic test and is therefore preferred by some cost-conscious institutions.