

Genetic Testing and Clopidogrel (Plavix)

Blood thinning drugs are used for many reasons. One common use is in patients that have had a heart stent placed. In this situation, blood thinners are often used to prevent the formation of a blood clot in or around the stent. One of the most frequently used blood thinners in this situation is clopidogrel (Plavix).

We all differ in our body's response to clopidogrel. This drug is metabolized in our bodies (changed and eventually broken down by enzymes in our liver), but it is not metabolized the same way in everyone's body. Some patients metabolize clopidogrel very well, others metabolize it poorly.

This variability in our bodies' response to clopidogrel is partly determined by our genes. The gene encoding the liver enzyme that metabolizes clopidogrel is called *CYP2C19*. One in five patients has an abnormality in this gene. These patients are at a higher risk for developing clots in their heart stent.

Why is clopidogrel (Plavix) chosen as a blood thinner by doctors?

- It works well
- It is safe
- It is affordable

How do I know if I have an abnormality in this gene?

Your doctor can do a blood test to determine if you can metabolize clopidogrel correctly.

What will happen if I have an abnormal copy of this gene?

Your doctor may prescribe a different blood thinning drug.

To learn more

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