

# **PATHOLOGY TESTS**

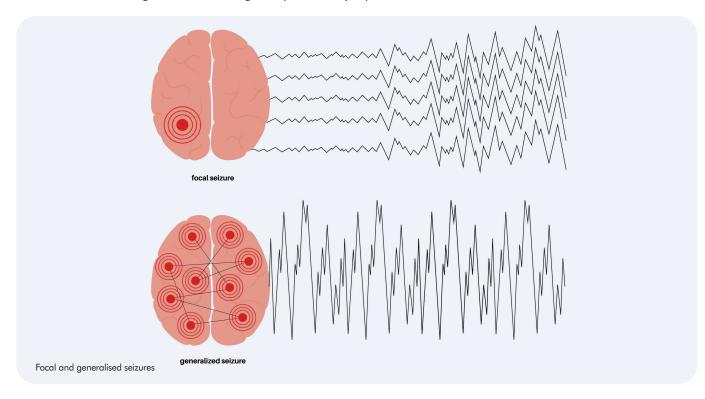
# EXPLAINED

Information about pathology tests to help everyone take control of their health and make the right decisions about their care.

#### WHAT YOU SHOULD KNOW ABOUT HAVING A TEST FOR VALPROATE

Valproate is an anticonvulsant medication that is used mostly to prevent seizures and to help even out moods if you have a bipolar disorder. It is also sometimes prescribed for recurrent migraine headaches, not so much to treat the migraines as to help prevent their occurrence. It works by increasing the amount of a chemical called gamma-aminobutyric acid (GABA) in the brain.

The test measures the amount of valproate in a sample of blood to check that the correct level of medication is being taken – enough to prevent symptoms but not so much as to cause side effects.





## Making sure your medication dose is just right

If your doctor has suggested that you take valproic acid, a test will be used regularly to make sure that the amount of valproate in your blood is at the right level and is stable. Valproate blood levels must stay within a narrow range for the drug to work properly. Too little and there may be a recurrence of your symptoms, too much and you may experience side effects.

You may be asked to have a test before starting on valproate and then again from time to time especially if there's been a change in your dose. If your dose seems to be working, regular blood tests can help ensure that valproate levels remain steady. Your dose may need to change over time and the test can be used when adjusting the medication to a more effective dose.

### Valproic acid changes to valproate

Valproic acid is the generic name of a widely used type of anti-seizure medicine. Valproate is the name of valproic acid after it has changed into the form that works in the body. Several anti-seizure medicines are changed into valproate in the body.



## Valproate and liver damage

Valproic acid can cause damage to your liver and kidneys. Your doctor will be particularly concerned about preventing this, but a balance is not always easily achieved. Valproate is processed by the liver and people differ in how quickly their liver metabolises it. Your age and the health of your liver will make a difference. Very young and elderly people are more likely to experience increased side effects.



#### Valproate and pregnancy

Valproate should not be used if you are of childbearing age, and it is possible that you could become pregnant, even if you are not currently planning to have children. Valproate can seriously harm an unborn baby by causing a condition called Fetal Valproate Syndrome (FVS). Babies with FVS are at risk of birth defects and lifelong developmental and learning problems. Some babies are only mildly affected, some may appear to be unaffected, but others may have more serious difficulties. If there is a possibility you could become pregnant and are taking valproate, it is important that you do not stop taking your medication but seek urgent advice from your doctor so they can give you the help and advice you need.



#### Having a blood sample taken

You should talk to your doctor about the timing of blood sample collection. Since valproate dosage timing varies, and some formulations are time-released, collection instructions may vary. Often, the recommended time for sample collection is just before the next dose is taken. This makes sure that the lowest amount of drug to be effective is maintained in the blood.



# What can you results show?

The therapeutic range for valproate has been established to be 50 -100 mg/L. Within this range, most people will respond without too many side effects. However, response varies from person to person. Some people will experience seizures, mood swings or migraines at the low end of the therapeutic range while others will experience unpleasant side effects at the upper end. For the best outcomes you will need to work closely with your doctor to find the dosage and concentration that works for you.

In general, if valproate results are within the therapeutic range, you are not having recurrent seizures, mood swings or migraines, and you are not experiencing significant side effects, then the dosage of valproate you are receiving is considered correct.

You should not increase, decrease, or stop taking your medication without consulting your doctor. A variety of prescribed drugs, over-the-counter medications and supplements can increase, decrease, or interfere with the concentrations of valproate in the blood.

While severe liver injury is rare, mild increases in liver-related enzymes (AST and ALT) occur in up to 20 per cent of people taking valproate. These usually return to normal when the dosage is correct.

Since valproate increases the risk of neural tube defects such as spina bifida, women of child-bearing age who are planning to become pregnant should talk to their doctor about their medication.

For more detailed information on these and many other tests go to pathologytestsexplained.org.au



#### www.pathologytestsexplained.org.au

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Click on the link to find information about what your tests are investigating or measuring and what your results can tell your doctor.