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# GENETIC TESTING OFFERS MEDICATION INSIGHT

### GENES HELP DOCTORS PRESCRIBE THE MOST EFFECTIVE TREATMENTS

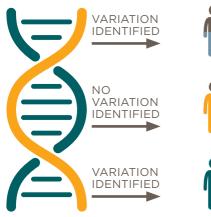
Mediclinic recognises that you are unique, as is your body's response to medicines on account of factors such as age, weight, organ function and variations in genetic material.

Through the process of metabolism, the body is programmed to break down and eliminate any foreign molecules, for example, medication. Genes impact the body's ability to metabolise certain medicines, which impacts the efficacy of various medicines. If you metabolise a medicine faster than the norm, it could mean that the medicine will be less effective for you. Adjusting the dose might increase the effect on your body to what is normally expected. If you metabolise a medicine too slowly, the medicine can accumulate in your body and become toxic or cause side effects and unintended consequences.

Pharmacogenetics determines how an individual's genetic makeup affects their response to medication.

Many medicines are prescribed in a generic fashion, with some working better than others. Mediclinic offers a pharmacogenetic (PGx) DNA test, which can assist doctors with decisionmaking when prescribing medicines. Furthermore, the test helps minimise the 'trial and error' period of medicine treatments and can also aid in reducing or preventing unnecessary side effects, especially when you are taking many different kinds of medicines.

#### Personalised prescribing with pharmacogenetics



The standard dose will be ineffective.

You need a higher dose.





The standard dose will work fine.





The standard dose is too high.

You need a lower dose or a different drug.



Pharmacogenetics aims to ensure that the right medication is delivered at the right time to the benefit of our patients. The PGx DNA test can identify the best medication for the following conditions and disease areas:

- Psychiatric conditions (anxiety, depression, ADHD, PTSD)
- Neurological conditions (epilepsy, tremors, spasms)
- Heart conditions (congestive heart disease, hypertension, arrhythmias, stroke prevention)
- Cholesterol management
- Gastrointestinal diseases, acid reflux, nausea
- Cancer
- · Chronic or acute pain management
- Infectious disease
- Immune therapy
- Oral contraceptives and gynaecology

The results from your Mediclinic Precise PGx test will present information about your inherited genetic variations and the influence thereof on how more than 200 medications will work in your body.

The test results will also provide the relevant gene variant (poor, normal or rapid metaboliser) as well as extra information concerning the expected efficacy of a drug, advice about dose adjustments, and whether specific medication will be associated with serious adverse events.

Your doctor can use this report to select the best medication in the right dose for your diagnosis at any time when the relevant medication is needed.

The Mediclinic Precise PGx test is designed to reduce the risk of adverse side effects or poor drug response by providing high-quality and relevant information to doctors to help them make informed decisions on your treatment and medication. The report does not constitute medical advice. Please do not change or stop taking your medication without consulting with your doctor. It is important to note that other genetic, clinical or lifestyle factors may influence your response to medications.

The Mediclinic Precise PGx test is offered to patients via their healthcare provider to ensure that patients receive the most accurate clinical information regarding their treatment regimens in a responsible manner.

### FREQUENTLY ASKED QUESTIONS

#### Can this test help reduce side effects?

Yes, the results can be used by your doctor to determine which medications are best suited for your genetic profile. You may require a reduced dose or completely different medication, which can minimise your risk of experiencing side effects.

# Will I benefit from this test if I have several chronic diseases?

Yes, the chances of experiencing side effects or altered efficacy become greater the more medications you take. Variations in your genes can influence your body's ability to use or remove the medication. The test can help manage your treatment regimen if you are taking several medications.

### Can this test be used before I start any medication?

Yes, the results of the test can be used by your doctor as a starting point for identifying the most suitable medicine for your body. At present, however, it can only be used for approximately 200 medicines – mainly for the conditions listed above.

# Will I need to repeat the test every time I take new medication?

Your DNA does not change over time. This means that your genetic results will be valid throughout your lifetime. As soon as updated data or new evidence becomes available on the existing list of medications, or if new medications are added to this list, your report will be updated with this new information. However, if completely new relevant gene variations are found through international scientific communities, a new test may be needed.

### Will this test also tell me if I am predisposed to developing a disease?

No, the PGx test only involves determining gene variations that impact the effect of medication on your body, and how your body processes the medication. A different type of test is needed for you to understand your genetic risk for developing certain diseases.

#### Will I respond to medication faster?

The PGx test minimises the 'trial and error' period of selecting a medication that is right for you. By knowing what medicine will offer you the greatest clinical benefit, your pharmacist or doctor can identify the best treatment option quicker. This means you will be able to experience the benefit of the medicine sooner - especially medicines that take a long time to show improvement in your condition. such as antidepressants, for example, If required, your doctor will also be able to adjust the dose of the medication specifically to your genetic profile and you may experience fewer negative effects of medications.

### Can my doctor rely on the analysis?

Your DNA sample is analysed in an accredited laboratory under strict requirements to ensure that quality and accuracy standards are achieved and maintained. The recommendations associated with your gene variations are publicly available and peerreviewed by experts. All sources are continuously updated in your report, which means that if the experts include new recommendations, your analysis will automatically be updated at no additional cost.

### Will my data be protected?

Your personal information will be treated as confidential and collected, processed and stored by Mediclinic and our service providers in a manner that ensures appropriate security thereof, including protection against unauthorised or unlawful processing and accidental loss, destruction or damage, using appropriate technical and organisational measures. We have implemented procedures to deal with any suspected data security breach and will notify you and any applicable regulator of a suspected breach where we are legally required to do so.

### CONTACT US TODAY

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