MyDNA – Pharmacogenomics

The MyDNA test is a Functional Pathology test that analyses the DNA of an individual patient and pharmacogenomics. MyDNA test is the study of how genetic factors may influence an individual's response to certain medications. MyDNA test combines the study of pharmacology (the study of how drugs work in the body) and genomics (the study of genes and their functions). MyDNA test is a reliable way of assisting practitioners in selecting safe and effective medications for their patients based on each patient's unique genetic makeup.
There are certain genes which contain instructions to build enzymes which, in turn, help the body to break down medications, primarily in the liver. Every individual's genetic makeup comprises of variations of each of these protein producing genes. Each gene will also present varying levels of activity (e.g. slow, normal or fast), and as a result, individuals vary in how slow or fast they break down and clear medications from the body. This test can aid in the clinical understanding of a patients predisposition to metabolise and help to pinpoint areas in Phase I detoxification that may require support.

Test Kit

After the practitioner has provided a request form, the patient can order their MyDNA test kit online, or visit their nearest Australian Clinical Labs collection centre to draw the blood sample.
Each test kit contains full instructions.

Turnaround Time

The standard turnaround time for this test is 14 working days from the date the patient's specimens are received at our laboratory.

Specimen Requirements

- A blood or swab specimen is required, which can be collected at any time of day.

Children

The MyDNA Pharmacogenomic test is suitable for children.

Patient Preparation

- Patients must list any current medications on their referral form but are not required to discontinue any medications.
- Avoid eating or drinking anything for at least 30 minutes prior to collection of the swab sample.
- Fasting is not required for the blood sample.

Test Results

Patient results will be delivered to the referring practitioner via electronic download (eResults), unless requested otherwise. However, results via fax and/or hardcopy can be issued.

Companion Tests

- MTHFR Gene Test
- Urinary Pyrroles

The results of an MTHFR Gene Test in relation to a MyDNA test can help to determine whether inhibited methylation may be influencing Phase I detoxification. Mutations C677T and A1298C SNPs (Single Nucleotide Polymorphisms) affect the methylation and the conversion of homocysteine into methionine as well as the breakdown of heavy metals. Assembling the capability of MTHFR SNPs and SNPs assessed in the MyDNA test can assess whether a patient has significantly inhibited metabolisation. Pyroluria increases the depletion of key nutrients needed for neurotransmitter production, tissue repair/immune response and liver detoxification. The deficiency of these key nutrients can specifically affect enzyme function in Phase I metabolisation. This can alter the patient's ability to metabolise pharmaceuticals, toxins and chemicals in our environment.