



Detoxification Profile

Our exposure to toxins is unavoidable and how we process and metabolise these toxins may determine overall health status. While the body's innate ability to process toxins is usually very efficient, it can be overloaded, leading to increased toxic burden and impaired detoxification capacity. The result of this can contribute to chronic disease and compromised health.

How will your patient benefit from this profile?

Certain single nucleotide polymorphism (SNPs) can affect detoxification enzymes and the ability to effectively process and remove a wide range of compounds; this can lead to altered detoxification function.

The Clinical Services Detoxification Profile helps to better understand your patients' ability to detoxify and eliminate certain exogenous and endogenous compounds, allowing you to target patient treatment plans to effectively enhance this process. Compounds considered include endogenous hormones, neurotransmitters, waste products, exogenous pollutants, heavy metals, pesticides, petrochemicals, and other toxins. Results may help to improve the necessary detoxification processes to improve overall wellbeing.

What biological functions are better understood through this profile?

The Detoxification Profile helps to identify the SNPs associated with specific detoxification enzymes and pathways including:

- phase 1 and phase 2 detoxification
- antioxidant status – detoxification produces intermediate metabolites that act as reactive oxygen species (ROS) causing oxidative damage and inflammation
- detoxification of certain pharmaceutical medications.

Patients, symptoms and conditions best suited to this profile

- A history of drug and alcohol abuse
- A use of pharmaceutical and recreational drugs
- Adverse drug reactions
- Autism
- Chronic fatigue
- Fibromyalgia
- Food intolerances
- Gastrointestinal and digestive complaints
- Headaches
- Hormonal imbalances
- Immune dysfunction
- Industry workers who have been exposed to pollutants, pesticides, herbicides and heavy metals
- Known chemical sensitivities
- Leaky gut syndrome
- Menopausal symptoms
- Migraines
- Multiple chemical sensitivities
- Multiple drug therapy
- Premenstrual syndrome (PMS)

For more information on
Clinical Services DNA testing visit
bioceuticals.com.au/clinical-services
or call **1300 201 362**



Hormone and Fertility Profile

Hormones are important for a myriad of functions in the body that look after endocrine health, mental health, reproductive health and fertility. Hormonal imbalances can contribute to numerous health concerns and conditions that affect men and women through all stages of life, fertility and pregnancy. It is understood that genetics play a role in up to 10% of couples who have experienced infertility or recurrent miscarriages. Having a greater understanding of key genetic influences is essential for remedying hormonal imbalances, addressing systemic health concerns and developing holistic preconception care plans to prepare the body for pregnancy, birth and beyond.

How will your patient benefit from this profile?

The Clinical Services Hormone and Fertility Profile is a comprehensive panel that can help to reveal the underlying influences affecting reproductive and endocrine health issues. This profile can help to optimise pregnancy health and reduce risk of miscarriage and neural tube defects by identifying the most appropriate form of folate according to patient's gene profile.

More effective clinical outcomes may also be seen in post-natal health and in the management of premenstrual syndrome (PMS), polycystic ovary syndrome (PCOS), endometriosis, thyroid conditions and menopause.

The results of this test assists practitioners in developing the most appropriate nutritional prescription and lifestyle plan to improve hormone-related health concerns as well as optimise preconception, pregnancy and post-natal health.

What biological functions are better understood through this profile?

The Hormone and Fertility Profile will help clarify key areas of genetic concern for those looking to conceive or improve hormonal health, including:

- hormone metabolism e.g. oestrogen, thyroid
- essential fatty acid metabolism – important for healthy brain and eye development
- methylation - DNA and RNA (gene expression), neural development, cell function and development
- risk of hypertension
- antioxidant status
- nutritional status
- thyroid function
- vitamin D metabolism
- neurotransmitter metabolism.

Patients, symptoms and conditions best suited to this profile

- Couples interested in optimising their preconception health
- Couples experiencing difficulties conceiving
- People interested in optimising health during pregnancy for mother and baby
- Poor nutrient status - vitamin D, essential fatty acids
- Women and men with a history of infertility
- Women with:
 - a history of preeclampsia
 - a history of miscarriage
 - unexplained infertility
 - ovulatory dysfunction
 - menstrual cycle irregularities
 - PMS
 - hormonal imbalances
 - PCOS
 - thyroid issues
 - endometriosis
 - premature menopause
 - a history of mood disorders, depression, post-natal depression.

For more information on
Clinical Services DNA testing visit
bioceuticals.com.au/clinical-services
or call **1300 201 362**



Methylation Profile

The methylation cycle is responsible for a plethora of important functions in the body from healthy gene expression and immune cell function, to energy production and weight management. The methylation cycle is also responsible for the regulation of homocysteine levels, which when raised and left untreated increases the risk of certain chronic diseases.

How will your patient benefit from this profile?

The Clinical Services Methylation Profile can be used to help identify modifiable risk factors for diabetes, depression, cardiovascular disease, reproductive issues, healthy cell production and cognitive dysfunction. Results from the methylation profile may help to determine predisposition to altered metabolism of folate, B12, B6, SAMe, methionine while reducing the risk for neural tube defects and developmental disorders.

Using this profile can help practitioners to uncover and address important contributing factors to many common chronic diseases. Results of the panel can help you to develop the most therapeutically appropriate lifestyle, nutritional and supplemental treatment protocols to optimise the health of individual patients.

What biological functions are better understood through this profile?

The Methylation Profile has implications in a wide variety of biological functions, including but not limited to:

- healthy gene expression
- DNA synthesis and repair
- detoxification
- hormone metabolism
- immune cell function
- energy production
- cell membrane function
- neurotransmitter production
- inflammation
- metabolism and weight management
- mental health and emotional wellbeing.

Patients, symptoms and conditions best suited to this profile

- Alcohol and chemical sensitivity
- Anaemia
- Anxiety, behavioural and mood disorders
- Autism
- Birth defects
- Cancer
- Cardiovascular disease
- Congenital heart disease
- Detoxification impairment
- Down syndrome
- Family history of heart disease, depression, inflammatory disorders
- General health and longevity
- Genetic disorders
- Immune dysfunction
- Lingering fatigue
- Migraines
- Neurodegenerative diseases
- Neuropathy
- Nutritional deficiencies
- Preconception care
- Pregnancy
- Psychiatric disorders
- Sleep issues

For more information on
Clinical Services DNA testing visit
bioceuticals.com.au/clinical-services
or call **1300 201 362**



Mood and Cognition Profile

Our genetic makeup may play an important role in the way we think and feel. How genes are expressed determines how various processes in the body such as the methylation cycle, neurotransmitter production and nutrient metabolism systems function. Alterations or dysfunction in any of these processes may contribute to the causes of mood disorders and cognitive decline.

How will your patient benefit from this profile?

Understanding how an individual's genetic makeup influences neurotransmitter production and metabolism may help to uncover key contributing factors to depression, anxiety and other mood disorders, while highlighting key areas for improvement to reduce the risk and slow the progression of cognitive decline. The profile will help highlight specific nutrient requirements based on genetic links associated with biochemical and metabolic pathways to assist dopamine, serotonin, histamine, GABA, bipterin, phosphatidyl choline and omega fatty acids production.

The Clinical Services Mood and Cognition Profile will help uncover valuable insights into how an individual might be best treated. It may help to determine the most appropriate lifestyle and supplement choices to optimise mood and cognition while reducing risk factors associated with cognitive decline and mood disorders.

What biological functions are better understood through this profile?

The Mood and Cognition Profile explores the proven genetic associations of mood and cognition through a greater understanding of:

- neurotransmitter production and function
- methylation as it relates to neurotransmitter function
- nutrient metabolism required for normal brain function and development such as phosphatidyl choline, essential fatty acids
- brain-derived neurotrophic factor (BDNF) production associated with learning, memory, sleep, anxiety and depression.

Patients, symptoms and conditions best suited to this profile

- Anxiety
- Children - ADD, ADHD, behavioural and learning issues
- Depression
- Insomnia
- Irritability
- Migraine
- Mood swings
- Panic attacks
- Poor concentration and cognition
- Poor memory
- PTSD
- Stress

For more information on
Clinical Services DNA testing visit
bioceuticals.com.au/clinical-services
or call **1300 201 362**



Nutrigenomic Profile

Nutrigenomics provides an understanding of how certain foods affect the expression of our genes. In other words, this profile explores exactly how 'we are what we eat'. Understanding nutrigenomics helps to identify the contributing factors to persistently low nutrient levels and the signs, symptoms and conditions associated with these deficiencies.

How will your patient benefit from this profile?

How nutrients are metabolised, absorbed and utilised and the impact this has on our genes, is a core component of being able to treat the root cause of a patient's presenting condition. Understanding which nutrients are best matched to a person's genetic profile is quintessential to generating efficacious and therapeutic treatment plans. Understanding of the nutrigenomic profile will help patients with a variety of issues from addressing an interest in general health and wellbeing, to supporting health maintenance and even fighting chronic fatigue or recurrent infections.

The Clinical Services Nutrigenomic Profile helps to take the guesswork out of nutritional recommendations and helps to highlight key areas of concern and potential deficiencies. You will be able to help support the processes that are required for proper nutrient metabolism and absorption and select the best supplemental form of nutrient to support your patient's needs.

What biological functions are better understood through this profile?

The Nutrigenomic Profile helps to identify key SNPs associated with:

- important aspects of nutrient metabolism, enzyme and receptor function
- the metabolism and impact of essential nutrients such as vitamins A, C, D, E and B12 along with folate, glutathione and CoQ10.

Patients, symptoms and conditions best suited to this profile

- Chronic fatigue
- General fatigue
- General interest in health and wellbeing
- Health maintenance
- Low energy
- Poor nutritional status despite a healthy diet
- Poor wound healing
- Recurrent infections

For more information on
Clinical Services DNA testing visit
bioceuticals.com.au/clinical-services
or call **1300 201 362**



Wellbeing Bundle

This bundle allows for the identification of multiple causes for health concerns and symptoms. It provides a comprehensive, holistic and functional perspective on health and wellbeing demonstrating the interrelatedness of all systems in the body.

How will your patient benefit from this bundle?

Numerous genetic predispositions affecting a wide range of functional aspects relating to health can be identified. These include genetic factors influencing neurotransmitter production and metabolism, methylation, phase 1 and 2 liver detoxification, reproductive health and endocrine health.

The Clinical Services Wellbeing Bundle is a holistic gene summary that is perfect for developing personalised nutrient strategies. Specific forms of nutrients and dosages can be selected to address any issues identified no matter what age or stage of health.

What biological functions are better understood through this bundle?

The Wellbeing Bundle provides a health summary of key single nucleotide polymorphisms (SNPs) and how these impact, and are impacted by, various processes in the body, including:

- methylation
- neurotransmitter production and function
- hormone metabolism
- detoxification
- antioxidant status
- nutrient metabolism, transport, absorption
- cardiovascular disease risk
- energy metabolism
- DNA expression.

Patients, symptoms and conditions best suited to this bundle

- ADHD
- Anaemia
- Anxiety
- Attention deficit
- Autoimmune disease
- Chronic disease states
- Chronic fatigue
- Complex cases with multiple presentations - assists with treatment priorities
- Digestive complaints
- Family history of heart disease
- Fatigue
- Folate and B12 deficiency
- Food intolerances
- General fatigue
- Headaches
- High homocysteine
- History of miscarriage
- Hormonal imbalances
- IBS
- Immune dysfunction
- Inflammatory disorders
- Insomnia
- Irritability
- Leaky gut syndrome
- Longstanding GI issues
- Low energy
- Menopausal symptoms
- Migraine
- Mood swings
- Multiple chemical sensitivities
- Neuropathy
- Panic attacks
- Patients interested in achieving comprehensive wellbeing
- Patients interested in addressing root causes of ill health
- Patients interested in undertaking appropriate preventive measures and lifestyle changes to reduce risks for certain diseases
- PMS
- Poor concentration
- Poor memory
- Poor nutritional status despite a healthy diet
- Poor wound healing
- PTSD
- Recurrent infections
- Stress

For more information on
Clinical Services DNA testing visit
bioceuticals.com.au/clinical-services
or call **1300 201 362**