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# Genetic Detox Report      SAMPLE

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Report No.:	XXXXXX
Date of Sample:	XXXXXX
Date of Research:	XXXXXX
Date of Report:	XXXXXX
Patient Name:	XXXXXX
Patient Code:	XXXXXX
Date of Birth:	XXXXXX
Requested by:	DRXXXXXX

# Detoxification *Explained*

# SAMPLE

## PHASE I

Most toxins in our body are fat-soluble substances, therefore, to eliminate them through urine and bile, the liver employs two mechanisms:

- **Hydroxylation** renders toxins water-soluble and occurs with the involvement of more than 100 enzymes from the cytochrome P450 group.
- **Conjugation** combines toxins with another substance, either with other toxins, enzymes, or amino acids.

After fat-soluble toxins have been transformed into water-soluble form during Phase 1, the liver proceeds to Phase 2.

## PHASE II

At this stage, the liver plays a crucial role in rapidly neutralizing the intensified toxic by-products from the first phase of detoxification. These by-products have become more potent than in the initial phase, emphasizing the need for efficient rapid elimination. The liver prepares the toxins for removal from the body through various pathways, including urine, bile, and other pathways.

Reactions of the second phase of detoxification:

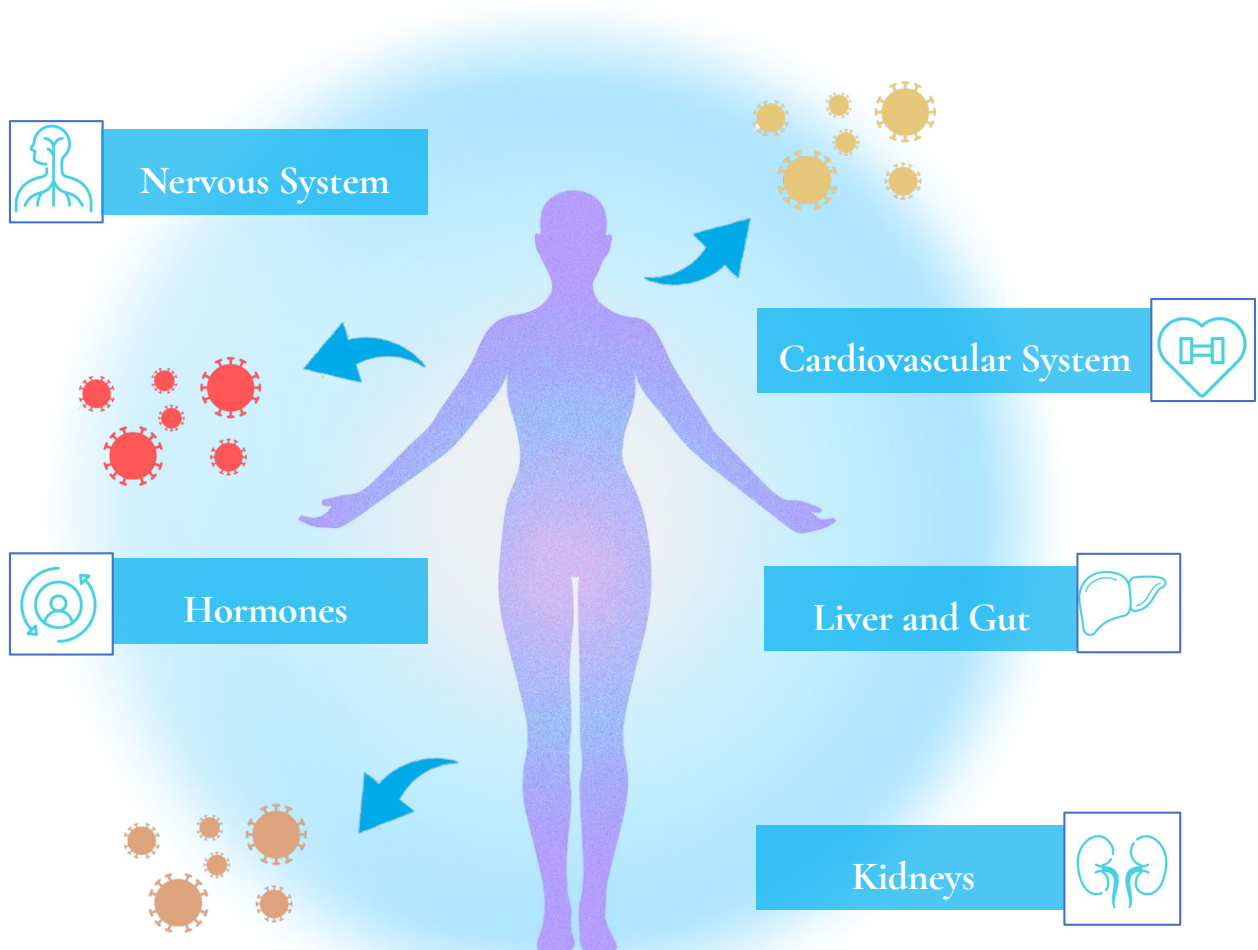
- **Sulphation**, which involves the conjugation of toxins with sulphate.
- **Conjugation** with glutathione. Glutathione is a major antioxidant in our body, and through its conjugation, heavy metals, pesticides, and the most dangerous carcinogens are eliminated from the body.
- **Glucuronidation** - the most energy-demanding process of detoxification, as it processes a large amount of toxins. It detoxifies drugs, steroid hormones, preservatives, nicotine, and bilirubin. Genetic defects in this phase can lead to Gilbert's syndrome.
- **Acetylation**, which neutralizes histamine, serotonin, exhaust gases, tobacco, and other substances.
- **Methylation** – that occurs in four cycles that form the basis of methylation:
  - i. **Urea cycle.**
  - ii. **Ammonia cycle.**
  - iii. **Folate cycle.**
  - iv. **Methionine cycle.**

Methylation cycle is a fundamental biochemical pathway that governs and supports a wide range of crucial functions in the body, including gene regulation (turning genes on and off); detoxification of external and internal chemical substances and toxins, synthesis of neurotransmitters (dopamine, serotonin, adrenaline), hormone metabolism (oestrogens).

Each day, our body undergoes the crucial process of detoxification, eliminating internal and external toxins.

This is essential to maintain the proper functioning of our systems and safeguard us against the onset of chronic diseases and other health issues.

We investigate 5 systems involved in toxin elimination:



Common sources of toxins:



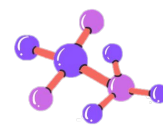
Pollution



Household chemicals



Alcohol



Metabolic waste

# Genetic Detox Results *Summary*

## Nervous System

COMT	High risk
MAOA	High risk
MAOB	High risk
APOE	Beneficial properties
APOE*	Beneficial properties

## Cardiovascular System

MTHFR	Beneficial properties
MTHFR*	Beneficial properties
PON1	High risk

## Hormones

CYP1A1	Moderate risk
CYP1A2	Moderate risk
CYP1B1	Beneficial properties
CYP2C9	Beneficial properties
CYP3A4	Beneficial properties
COMT	High risk
MTHFR	Beneficial properties
MTHFR*	Beneficial properties
GSTM1	High risk
GSTP1	Moderate risk
GSTP1*	Moderate risk
SULT1A1	Beneficial properties
SULT1E1	Beneficial properties
SULT2A1	Beneficial properties
UGT1A1	High risk

## Liver and Gut

GSTM1	High risk
GSTT1	Beneficial properties
SULT1A1	Beneficial properties
SULT1E1	Beneficial properties
SULT2A1	Beneficial properties
UGT1A1	High risk
FUT2	High risk
FUT2*	Moderate risk

## Kidneys

CBS	High risk
CBS*	Moderate risk
NAT2	Beneficial properties
GSTP1	Moderate risk

Color key	Beneficial properties	Beneficial properties
	Moderate risk	Moderate risk
	High risk	High risk
*2 Rs of the same gene.		

# Personalised Recommendations **SAMPLE**

Based on identified genetic predispositions, the following factors have a strong influence on patient's detox processes:

## Nervous System

### Your Symptoms:



- **Overexertion.**
- Sleep problems.
- Low energy level.
- Rapid/constant fatigue.
- Difficulty to relax after severe overexertion.
- Workaholism.
- Inclined to oestrogen disbalance.
- Prone to low progesterone.
- Prone to cortisol disbalance.
- Prone to mood swings.

### Your Lifestyle:



- Regular physical activity, especially aerobic exercise, is the key to nervous system balance. Heavy & over exhausting weight training is not advised.
- Regular massage will help reduce tension.
- Breathing yoga, meditation is advised to help rebalance the nervous system.
- Limiting coffee, chocolate & alcohol consumption is advised. Increased intake might bring irritation and anxiety.
- Eating three times a day at the same time is advised – this can help to stabilize mood.
- Going to bed and waking up at the same time is advised.
- Taking contraceptives can lead to depression and increased fatigue.

### Your supplements:



- **Detoxification Support.** Developed based on this genetic panel and made by Swiss Center for Genetics.

### Biochemical controls:



- Estrogen and its fractions in both urine and blood.
- Thyroid hormones.
- Blood progesterone.
- Neurotransmitters in urine.
- Cortisol in both urine and blood.
- Vitamins B1, B2, B6, B12 in both

# Personalised Recommendations **SAMPLE**

Based on identified genetic predispositions, the following factors have a strong influence on patient's detox processes:

## Hormones

### Your Symptoms:



- **Accumulation of oxidized forms of estrogen.**
- Painful mammary glands.
- Mastopathy.
- Fibromyoma.
- Menstrual irregularities.

### Your Lifestyle:



- Controlling intestinal permeability.
- Controlling oxidized forms of estrogen in the urine while taking hormone replacement therapy or contraceptives.
- Sauna once a week is recommended to improve detoxification.
- Regular aerobic exercise until sweating is recommended.

### Your supplements:



- **Healthy Estrogen Balance**  
Developed based on this genetic panel and made by Swiss Center for Genetics.


### Biochemical controls:



- Glutathione
- Glutathione peroxidase
- Vitamin B2 in urine
- Iodine in urine
- Manganese, selenium in blood
- Vitamin C
- Estrogen and its fractions in both blood and urine
- Cortisol in both blood and urine


# Discover Our Genetic Tests:

# SAMPLE




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**Genetic Man's Health**

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## Each Genetic Test Report includes:

- ✓ In-depth explanations of the focus topic
- ✓ Detailed color-coded genetic results
- ✓ Personalised recommendations



# End of SAMPLE Report

This genetic test was performed by the Swiss Center for Genetics, RCLIN Swiss SA, Rue du Lac 10, 1815 Clarens, Switzerland or one of its partner laboratories.

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**End of Report**