SelfDecode™

Hormone Balance (Functional)

Biohacker Report

REPORT CATEGORY —

SEX HORMONES

Sample Client

Report date: 29 July 2025

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Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

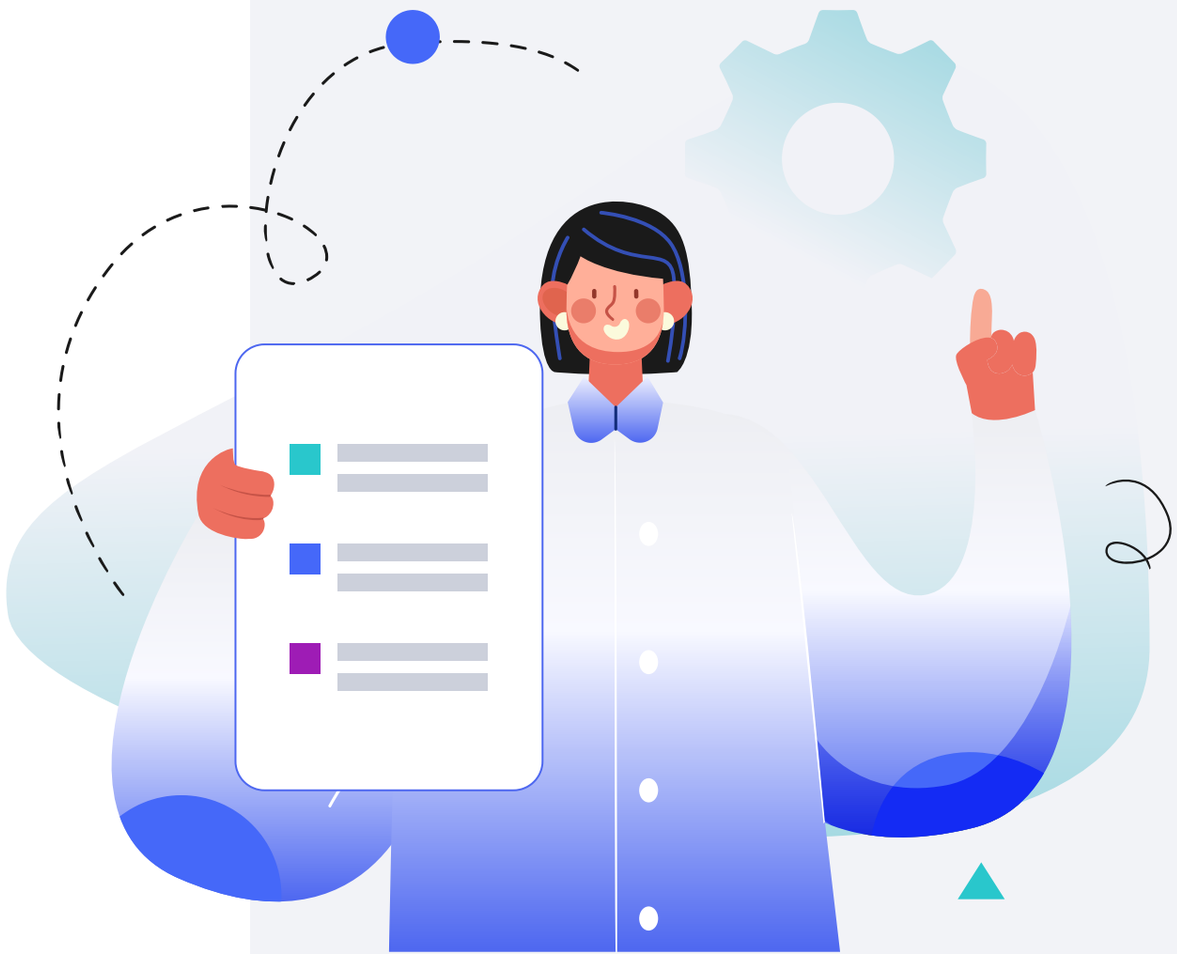
Female

HEIGHT

5ft 9" 175.0cm

WEIGHT

165lb 75.0kg



DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

Introduction

Hormones are essential chemical messengers produced by glands in the body, instructing various organs and systems on how to function.

Female hormones, primarily estrogen and progesterone, regulate critical bodily processes such as puberty, fertility, pregnancy, and menopause, while male hormones, mainly androgens like testosterone, control male-specific processes, including puberty, fertility, and andropause. Both estrogen and testosterone are present in both sexes but at varying levels.

Inefficient hormone metabolism can lead to health issues, and this balance is influenced by genetic factors alongside diet and lifestyle. Understanding genetic predispositions can aid in managing hormone levels and optimizing overall health.

Genetics of Hormone Balance

CYP1B1 (rs1056836, Leu432Val C>G): This gene is involved in estrogen metabolism. The rs1056836 variant (Leu432Val C>G) may affect the breakdown of estrogen, potentially influencing estrogen levels and associated risks.

COMT (rs4680, Val158Met G>A): COMT is responsible for breaking down catecholamines, including estrogen metabolites. The rs4680 variant (Val158Met G>A) can affect estrogen metabolism, impacting hormonal balance and potentially influencing mood and stress response.

MnSOD (rs4880, Val16Ala T>C): This gene encodes an enzyme that protects cells from oxidative stress. The rs4880 variant (Val16Ala T>C) can impact antioxidant capacity, indirectly affecting hormone metabolism and balance.

CYP17A1 (rs743572, 34 T>C): The *CYP17A1* gene is involved in the production of steroid hormones, including androgens and estrogens. The rs743572 variant (34 T>C) can influence levels of these hormones, affecting hormone-related health outcomes.

MTHFR (rs1801133, 677 C>T): MTHFR is essential for folate metabolism and methylation, which impacts hormone detoxification pathways. The rs1801133 variant (677 C>T) can influence hormone metabolism and methylation efficiency, potentially affecting hormonal balance.

NQO1 (rs1800566, Pro187Ser C>T): This gene is involved in detoxification processes. The rs1800566 variant (Pro187Ser C>T) can affect the elimination of hormone-related oxidative byproducts, impacting hormone balance.

CYP19A1 (rs10046): CYP19A1 encodes aromatase, an enzyme that converts androgens to estrogens. The

WORSE

More likely to have hormone imbalances based on 18 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CYP1B1	rs1056836	GG
CYP19A1	rs10046	AA
MTHFR	rs1801133	AA
SOD2	rs4880	GG
BORCS7	rs743572	AG
CYP1B1	rs1800440	CT
COMT	rs4680	AG
SRD5A1	rs3822430	GA
UGT2B15	rs1902023	AC
/	rs366631	AG
TRIM4	rs2740574	TT
TNFSF12	rs1799941	GG
CYP1A1	rs1048943	TT
TNFSF12	rs6259	GG
CYP2C19	rs4986893	GG
CYP2C19	rs4244285	GG
NQO1	rs1800566	GG
GSTP1	rs1695	AA
EPHX1	rs1051740	TT

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

rs10046 variant can influence estrogen production, impacting hormone levels and balance.

CYP1A1 (rs1048943, Ile462Val A>G): This gene is involved in estrogen metabolism. The rs1048943 variant (Ile462Val A>G) can affect the conversion of estrogens, influencing hormonal balance and related health outcomes.

GSTP1 (rs1695, Ile105Val A>G): GSTP1 plays a role in detoxification. The rs1695 variant (Ile105Val A>G) can impact the body's capacity to manage oxidative stress, indirectly affecting hormone metabolism.

CYP2C19 (rs4244285, *1/*2/*17): This gene variant affects the metabolism of certain hormones and drugs. Different alleles can lead to variable enzyme activity, impacting hormone processing.

CYP3A4 (rs2740574, −392 A>G): CYP3A4 is involved in metabolizing estrogens and other hormones. The rs2740574 variant (−392 A>G) can influence hormone breakdown, affecting overall balance.

EPHX1 (rs1051740, Tyr113His T>C): *EPHX1* encodes an enzyme that metabolizes various compounds, including hormones. The rs1051740 variant (Tyr113His T>C) can impact hormone-related metabolic pathways.

SHBG (rs6258, −68 G>A): SHBG encodes sex hormone-binding globulin, which regulates the availability of sex hormones like testosterone and estrogen. The rs1799941 variant (−68 G>A) can influence hormone levels and bioavailability.

SRD5A1 (rs3822430, A>G): This gene encodes an enzyme that converts testosterone to dihydrotestosterone (DHT). The rs3822430 variant (A>G) affects androgen metabolism, impacting hormone balance.

CYP1B1 (rs1800440, Asn453Ser A>G): The CYP1B1 gene is involved in estrogen metabolism. The rs1800440 variant (Asn453Ser A>G) can affect estrogen breakdown efficiency, potentially influencing estrogen levels and impacting hormone-related health risks.

SHBG (rs6259, Pro185Leu C>T): SHBG encodes sex hormone-binding globulin, which regulates the availability

of hormones like testosterone and estrogen. The rs6259 variant (Pro185Leu C>T) can influence SHBG levels, affecting hormone bioavailability and overall hormonal balance.

SULT1A1 (rs1412288244, Arg213His G>A): The SULT1A1 gene is involved in the sulfation and detoxification of hormones and drugs. The rs1412288244 variant (Arg213His G>A) can alter enzyme activity, affecting hormone metabolism and impacting hormone balance and detoxification capacity.

UGT2B15 (rs1902023, T>G): UGT2B15 is involved in the detoxification of steroid hormones. The rs1902023 variant (T>G) can influence hormone clearance rates, affecting balance.

These genetic factors, along with lifestyle and environmental influences, play a crucial role in hormone metabolism and balance. By understanding these genetic predispositions, individuals can adopt lifestyle and dietary strategies to support hormonal health and reduce the risk of hormone-related conditions.