



DEEPCARE

AT-HOME KIT

DUTCH Complete

A 24-hour dried-urine hormone panel. Sex hormones, full estrogen-metabolism pathway, the diurnal cortisol curve, DHEA, melatonin, and an oxidative-stress marker, in one collection.

PRICE

TURNAROUND

SAMPLE

CHF 399

21 days

Dried urine

WHAT THIS MEASURES

35 hormones, metabolites and organic acids.

A standard serum hormone draw is a snapshot. One moment of one day. DUTCH Complete uses four dried-urine collections across a single 24-hour period to capture both the absolute hormone levels and the way the body is metabolising them, including the diurnal cortisol curve that serum cannot read.

Sex hormones & metabolites	Testosterone, estradiol and estrone, full estrogen metabolism with 2-OH / 4-OH / 16-OH ratios, progesterone metabolites.
Adrenal & cortisol pattern	Free cortisol and cortisone across four timepoints, total cortisol metabolites, the cortisol-awakening response, DHEA-S.
Sleep & oxidative stress	6-OH melatonin (the urinary metabolite of melatonin) and 8-OHdG (a DNA-oxidation marker that flags chronic oxidative load).
Why dried urine	Captures the diurnal pattern across four moments of the day. Serum captures one. The pattern is often the clinical signal. Flat morning cortisol, blunted awakening response, late-evening surge.

WHAT THE REPORT LOOKS LIKE

Every hormone, every metabolite.

DUTCH Complete reports the full 35-marker panel below. Estrogens, their metabolites and ratios, then androgens and their pathway, the diurnal cortisol and cortisone curves, cortisol metabolites, and the organic-acid add-on. The full report also includes a visual cortisol-curve diagram, which we walk through together in the consultation. Below is a representative sample, not a real patient. Showing a perimenopausal pattern with chronic-stress overlay.

■ Within range
 ■ Borderline
 ■ Outside range

Estrogens & metabolites (ng/mg Cr)			
Estrone (E1)	10.5	12 – 26	
Estradiol (E2)	1.8	1.8 – 4.5	
Estriol (E3)	6.2	5 – 18	
Total estrogen (ΣE)	18.5	35 – 70	
2-OH-E1 (2-OH)	3.1	5.1 – 13.1	
4-OH-E1 (4-OH)	2.4	0 – 1.8	
16-OH-E1 (16-OH)	1.4	0.7 – 2.6	
2-Methoxy-E1 (2-MeO)	3.8	2.5 – 6.5	
2-OH-E2 (2-OH E2)	1.2	0 – 3.1	
4-OH-E2 (4-OH E2)	0.21	0 – 0.52	

WHAT THE REPORT LOOKS LIKE (continued)

■ Within range
 ■ Borderline
 ■ Outside range

Estrogen metabolism ratios

2-OH / 16-OH-E1 balance (2:16)	2.21	2.69 – 11.83	
2-OH / 4-OH-E1 balance (2:4)	1.29	5.4 – 12.62	
2-Methoxy / 2-OH balance (Me:2)	1.22	0.39 – 0.67	



Progesterone metabolites (ng/mg Cr)

β -Pregnanediol (β -Pd)	560	600 – 2000	
α -Pregnanediol (α -Pd)	180	200 – 740	

WHAT THE REPORT LOOKS LIKE (continued)

■ Within range
 ■ Borderline
 ■ Outside range

Androgens & metabolites (ng/mg Cr)

DHEA-S (DHEA-S)	220	20 – 750	
Androsterone (Andr)	850	200 – 1650	
Etiocholanolone (Etio)	520	200 – 1000	
Testosterone (T)	3.4	2.3 – 14	
Epi-testosterone (Epi-T)	2.8	2.3 – 14	
5α-DHT (DHT)	2.1	0 – 6.6	
5α-Androstanediol (5α-A)	8.4	6 – 30	
5β-Androstanediol (5β-A)	22	12 – 75	

WHAT THE REPORT LOOKS LIKE (continued)

■ Within range
 ■ Borderline
 ■ Outside range

Diurnal free cortisol (ng/mg Cr)

Mid-sleep (U0) (U0)	12	0 – 16	
Waking (U1) (U1)	32	20 – 95	
+2 hours (U2) (U2)	55	30 – 130	
Dinner (U3) (U3)	12	7 – 30	
Bedtime (U4) (U4)	8	0 – 14	
24h free cortisol (ΣF)	119	65 – 200	

Diurnal free cortisone (ng/mg Cr)

Mid-sleep (U0) (U0)	42	0 – 59	
Waking (U1) (U1)	85	68 – 190	
+2 hours (U2) (U2)	125	90 – 230	
Dinner (U3) (U3)	55	32 – 110	
Bedtime (U4) (U4)	38	0 – 55	
24h free cortisone (ΣE)	345	220 – 450	

WHAT THE REPORT LOOKS LIKE (continued)

■ Within range
 ■ Borderline
 ■ Outside range

Cortisol metabolites & clearance (ng/mg Cr)

α -Tetrahydrocortisol (α -THF)	180	75 – 370	
β -Tetrahydrocortisol (β -THF)	1650	1050 – 2500	
β -Tetrahydrocortisone (β -THE)	2400	1550 – 3800	
Metabolised cortisol (Σ F+E)	4230	2750 – 6500	
Cortisol clearance rate (CCR)	8.2	6 – 12.5	





Organic acids: nutritional

Methylmalonate (B12) (MMA)	1.4 μ g/mg	0 – 2.5 μ g/mg	
Xanthurenate (B6) (Xan)	0.45	0.12 – 1.2	
Kynurenate (B6) (Kyn)	1.8	0.8 – 4.5	
β -Hydroxyisovalerate (biotin) (β HIV)	5.2	0 – 12.5	
Pyroglutamate (glutathione) (Pyr)	42	28 – 58	



WHAT THE REPORT LOOKS LIKE (continued)

■ Within range
 ■ Borderline
 ■ Outside range

Organic acids: neuro & oxidative

Homovanillate (dopamine) (HVA)	5.2 ng/mg	3 – 11 ng/mg	
Vanilmandelate (norepi/epi) (VMA)	3.4 ng/mg	2.2 – 5.5 ng/mg	
Quinolate (neuroinflammation) (Quin)	4.5 ng/mg	0 – 9.6 ng/mg	
Indican (gut dysbiosis) (Ind)	65 ng/mg	0 – 100 ng/mg	

Sleep & oxidative stress (ng/mg Cr)

6-OH-melatonin-sulfate (waking) (Mel)	21	10 – 85	
8-Hydroxy-2-deoxyguanosine (8-OHdG)	5.8	0 – 5.2	

Five things to notice.

DUTCH reports look denser than serum hormone panels because they show metabolism, not just levels. These are the five orientation cues.

- 1 Metabolites over levels.** A normal **estradiol** level with a skewed **2-OH to 16-OH ratio** tells a different story than the level alone. DUTCH shows both.
- 2 The 2 / 4 / 16 estrogen pathway.** **2-OH** is the "protective" detox path, **4-OH** can be more reactive, **16-OH** is more proliferative. The ratio between them is often more clinically meaningful than absolute estradiol.
- 3 Free vs metabolised cortisol.** **Free cortisol** is what reaches tissues. **Total metabolised cortisol** reflects what the body has cleared. Low free with normal metabolised suggests fast clearance, not adrenal insufficiency.
- 4 The cortisol curve (on the full report).** A **flat morning rise** or **late-evening surge** often matters more than the absolute values. The curve diagram on the full report is the headline finding we discuss in the consultation.
- 5 DHEA-S as resilience marker.** **DHEA-S** reflects adrenal reserve. Persistently low DHEA-S in the context of low cortisol points to genuine HPA-axis depletion, not just acute stress.

With help, in one hour.

Every DUTCH kit at Deepcare includes a 60-minute video consultation with Dimitris Messinis, PhD. He walks through the panel with you, considers what the patterns mean in context of your symptoms, and discusses whether neurofeedback, biofeedback, or photobiomodulation sessions would help. HRV biofeedback in particular has the strongest direct evidence for shifting cortisol-pattern dysregulation, and DUTCH is the test that most reliably names that pattern.

- If the cortisol curve is flat or inverted (low morning, high evening), the question is almost always autonomic regulation. Sleep, breathing, and HRV biofeedback take precedence over supplementation.
- If 4-OH estrogen reads elevated relative to 2-OH, the conversation is about supporting Phase-II detox (methylation, glutathione) and reducing inducers (alcohol, environmental exposures).
- If DHEA-S is persistently low with low free cortisol, the next step is rarely DHEA supplementation in isolation. It is usually a deeper question about chronic stress, sleep, and inflammation.

*We do not recommend reading this report on your own.
Hormones are read in the context of symptoms, not in isolation.*

Five steps over one day.

DUTCH uses four dried-urine collections across a single 24-hour window. Pick a typical day. Not a travel day, not a hangover day. The collections are quick (a small filter card, not a full sample); the spacing matters more than the volume.



STEP 01

Pick a typical day

A normal sleep pattern, no alcohol the night before, no missed medications. Women cycling should collect on day 19-21 of the cycle; non-cycling women and men can collect any day.



STEP 02

Sample 1. Within 30 min of waking

Before food, drink, or shower. This is the morning cortisol-awakening-response anchor of the diurnal curve.



STEP 03

Samples 2 and 3. Midday and dinner

Around 10:00–11:00 and 17:00–18:00, on the cards labeled accordingly. The lab is flexible by ± 30 minutes if life intervenes.



STEP 04

Sample 4. Bedtime

The last urine before sleep. This anchors the evening end of the diurnal cortisol curve.



STEP 05

Dry overnight + ship next morning

Let the cards dry flat, in the supplied envelope, away from heat. Package the dried cards into the return box and ship via DHL the morning after collection.

ABOUT THE METHOD

GC-MS/MS at Precision Analytical.

The lab is Precision Analytical in Oregon, USA. The instrument is gas chromatography tandem mass spectrometry (GC-MS/MS), which is the reference standard for steroid hormone metabolism analysis and offers higher specificity than immunoassay for the metabolite panel that DUTCH reports.

Independent validation in *BMC Chemistry 2021* (Newman et al.) reported an agreement coefficient of approximately 0.9 between DUTCH and traditional 24-hour urine collection for most steroid metabolites. Meaning the dried-urine cards capture essentially the same information as the older 24-hour collection that nobody actually completes in practice.

Newman M, Curran DA, Mayfield BP. BMC Chemistry 2021. Comparison of dried urine versus 24-hour collection for steroid hormone analysis.

What this does not show

DUTCH is a metabolism panel, not a replacement for clinical endocrine evaluation when symptoms are acute or severe. Suspected adrenal insufficiency, pituitary disorders, untreated thyroid disease, and acute hormonal crises (severe PMDD, postpartum depression, suspected pheochromocytoma) belong with an endocrinologist or GP. DUTCH is most useful where the question is "what is the pattern across the day, and how is the body metabolising what is there". Not "do I have an acute hormonal disease."

WHAT HAPPENS NEXT

Four steps from order to consultation.

TODAY

Order on deepcare.ch

Pay through the Stripe checkout linked from /kits. Confirmation arrives by email within minutes.

WITHIN 3
WORKING
DAYS

Kit ships

A small box arrives with four labeled collection cards, instructions, drying envelope, and the prepaid DHL return label.

ONE TYPICAL
DAY

Collect across the day + ship

Four small collections, about five minutes of your time total. Dry overnight. Ship next morning.

21 DAYS
AFTER
ARRIVAL

Results + Health Map call

We invite you to book a 60-minute video consultation with Dimitris when your report is in. You leave with a written priority list and a clear picture of the cortisol curve.

Order this kit

deepcare.ch/kits