The Gene “Cheat Sheet” Every Practitioner Needs

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1 Nutritent Metabolism & Needs

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Gene	Function	Relevance	Support
MTHFR	Folate metabolism. Methylation	Impaired folate metabolism; increased need for 5-MTHF (methylated folate), B12, B6, B2	Impaired folate metabolism; increased need for 5-MTHF (methylated folate), B12, B6, B2
VDR	Vitamin D Receptor	Poor vitamin D activation and metabolism	High need for vitamin D (supplementation may be required), also K2 and Mg. Consider testing.
BCMO1	Converts beta-carotene	Ability to convert beta-carotene to retinol	Emphasise retinol-rich foods (e.g. liver, egg yolk).
SLC23A1	Vitamin C transport	Decreased circulating vitamin C	Increased need for vitamin C

2 Detoxification & Oxidative Stress

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Gene	Function	Relevance	Support
GSTM1/GSTP1	Detox via glutathione	Reduced detox capacity	Sulphur foods, NAC, selenium
SOD2	Mitochondrial antioxidant	Increased oxidative stress	Increase antioxidants, CoQ10, polyphenols
CYP1A2	Caffeine, oestrogen + pharmaceutical metabolism	Impacts speed of metabolism	Reduce caffeine, support liver
COMT	Breaks down oestrogen & stress hormones	Slow = sensitivity to stress & pain; oestrogen dominance, increased focus and attention Fast = stress resilience but low dopamine	B6, Mg and reduce stimulants

3 Weight, Blood Sugar & Metabolism

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Gene	Function	Relevance	Support
FTO	Appetite & fat storage	Increased obesity & carb cravings	High protein, low-GI diet. Physical activity
TCF7L2	Insulin signalling	Increased risk of type 2 diabetes	Low-GI, fiber, magnesium
APOE	Lipid & brain health	APOE4 = increased Alzheimer's & fat sensitivity	Mediterranean diet, low sat fat, omega 3, B9 and B12

4 Food Sensitivities & Intolerances

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Gene	Function	Relevance	Support
LCT / MCM6	Lactase enzyme	Lactose intolerance risk	Dairy-free or low lactose
HLA-DQ	Immune response to gluten	Risk of coeliac / NCGS	Gluten-free diet, gut repair
CYP1A2	Caffeine sensitivity	Slow metabolisers = less caffeine tolerance	Reduce caffeine, support liver

5 Mood, Stress & Behavioural Response

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Gene	Function	Relevance	Support
COMT	Stress hormone metabolism	Susceptibility to stress, irritability and pain	Mg, B6 and avoid caffeine. Stress management
BDNF	Brain plasticity, learning, memory	Low = risk of low mood, brain fog, obesity	Exercise, omega-3 (DHA), curcumin, polyphenols
MAOA	Breaks down neurotransmitters serotonin, dopamine and noradrenaline	Slow breakdown = susceptibility to outward anger and anxiety Fast breakdown = inward anger and risk of depression	Magnesium, B6, omega-3, support gut and gut-brain axis. Avoid stimulants.

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Ready to go deeper with DNA?

We help practitioners turn genetic insights into perosnalised nutrition strategies that work.

Whether you're just gettign started or want to integrate DNA testing into your Icinic, we're here to support you.

Let's connect:

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