

# ZNÁTE SVOU GENETICKOU VÝBAVU?!

## OTESTUJTE SE ...

### Pro koho je SGT určený?

Test je určen pro všechny zájemce, kteří chtějí zjistit, zda je jejich genetická výbava v pořádku. Cílem testu je významně omezit genetickou zátěž především pro páry plánující rodinu.

Vyšetření DNA profilů určí, zdali partneři nesdílí takovou genetickou výbavu, která by mohla ohrozit zdraví společných potomků.

### Kdy je možno očekávat výsledek testu?

Analýza uvedeného širokého spektra genetických variant probíhá metodou „sekvenování nové generace (NGS)“. Tento proces je analyticky i interpretací náročný a výsledková zpráva je tak k dispozici do 2-3 měsíců od odběru.

Cena testu: 9 900,- Kč

Číslo účtu: 1828978329/0800,

Variabilní symbol: 81601

Zpráva pro příjemce: SGT

QR platba



U.S.G.POL s.r.o.  
1828978329/0800

[www.usgpol.cz](http://www.usgpol.cz)



### Jak se na SGT objednat? Kde a jak se provádí odběr vzorků?

#### • Odběr v Centru U.S.G. POL

Kontaktujte prosím telefonicky či prostřednictvím e-mailu centrum U.S.G. POL.

Obdržíte termín (datum a hodinu) vyšetření. V ordinaci podepišete informovaný souhlas. Následně Vám bude proveden odběr malého množství žilní krve. Před odběrem se můžete najít.

Jako první se provádí odběr krevního vzorku u ženy - žadatelky. V případě, že test prokáže významnou DNA abnormalitu, následuje další odběr u partnera pro komplexní vyhodnocení genetického rizika.

#### • Odběr na smluvním pracovišti

Odběr vzorku lze provádět i přímo u gynekologa či praktického lékaře.

V případě pozitivního nálezu je další postup řešen klinickým genetikem.

Genetická poradna  
a laboratoř molekulární diagnostiky  
U.S.G.POL uvádí do klinické praxe

## SAFETY GENE TEST (SGT)

### Co je Safety Gene Test (SGT)?

Jde o test na určení přenášečství genetických onemocnění, které mohou podmiňovat dědičnou zátěž jedince, příbuzných a potomků.

Test odraží nejnovější vývoj v oblasti DNA diagnostiky.

Jedná se o vyšetření genů, jejichž poruchy mohou vést k nejčastějším a nejzávažnějším genetickým onemocněním. Jde např. o cystickou fibrózu, spinální muskulární atrofii, svalové dystrofie, mentální poruchy, hluchotu, dědičné metabolické vadny, jakými jsou fenylketonurie, cystinurie, glycogenózy, apod. . .

Celkem jsou vyšetřeny varianty genů pro více jak 400 nemocí.

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## Seznam nemocí a vyšetřovaných genů

Bardet-Biedl syndrome 9	BB9	Congenital adrenal hyperplasia, 21-hydroxylase-deficient	CYP21A2	Familial hypercholesterolemia, LDLR-related	LDLR	Homocystinuria due to deficiency of MTHFR	MTHFR	Meckel-Gruber syndrome, type 1	MKS1	Oculocutaneous albinism, type 3	TYRP1	RET syndrome
Bare Lymphocyte syndrome, CITA-related	CIITA	Congenital adrenal hypoplasia, X-linked	NROB1	Familial hypercholesterolemia, LDLRAP1-related	CBS	Homocystinuria, CBS-related	ACADM	Oculocutaneous albinism, type 4	SLC45A2	Rhizomelic chondrodyplasia punctata, type 1	PEX7	
Bartter syndrome, type 4a	HSD17B3	Bartter syndrome, type A2	MPL	Familial hyperinsulinism, ABCB8-related	MTRR	Homocystinuria, type cblE	MLC1	Odonto-onycho-dermal dysplasia/Schopf-Schulz-PassARGE syndrome	WNT10A	Rhizomelic chondrodyplasia punctata, type 3	AGPS	
17-beta hydroxysteroid dehydrogenase 3 deficiency	HSD3B8	Bernard-Soulier syndrome, type B	GP1BA	Congenital chloride diarrhea	MEFV	Hydatidiform mole, recurrent	SLC19A2	Omenn syndrome, RAG1-related	RAG1	Roberts syndrome	ESCO2	
3-beta-hydroxysteroid dehydrogenase type II deficiency	HMGCL	Bernard-Soulier syndrome, type C	GP9	Congenital disorder of glycosylation, type 1A, PMM2-related	AQP2	Hydrocephalus syndrome	ATP7A	Omenn syndrome, RAG2-related	RAG2	Salla disease	SLC17A5	
3-hydroxy-3-methylglutaryl-coenzyme A lyase deficiency	MCCC1	Beta-hemoglobinopathies	HBB	Congenital disorder of glycosylation, type 1B	FANCA	Menkes syndrome, X-linked	CC2D1A	Ornithine aminotransferase deficiency	OAT	Sandhoff disease	HEXB	
3-methylcrotonyl-CoA carboxylase 1 deficiency	MCCC2	Beta-ketothiolase deficiency	ACAT1	Congenital disorder of glycosylation, type 1C	FANCC	Hypermethioninemia	AP1S1	Ornithine transcarbamylase deficiency	OTC	Schimke immunoosseous dysplasia	SMARCA1	
3-methylcrotonyl-CoA carboxylase 2 deficiency	SRD5A2	Beta-ureidopropionate deficiency	UPB1	Congenital Finnish nephrosis	FANCG	Hyperoxaluria, primary, type 1	GAXT	Osteopetrosis, infantile malignant, TCIRG1-related	TCIRG1	Segawa syndrome, TH-related	TH	
5-alpha-reductase deficiency	PT5	Bilateral frontoparietal polymicrogyria	ADGR61	Congenital hyperinsulinism, KCN11-related	BRIP1	Hyperphosphatemic familial tumoral calcinosis	GALNT3	Pantothenate kinase-associated neurodegeneration	PANK2	Severe combined immunodeficiency, ADA-related	ADA	
6-pyruvyl-tetrahydropterin synthase (PTPS) deficiency	MTTP	Biotinidase deficiency	BTD	Congenital hypothyroidism	TPO	Hypohidrotic ectodermal dysplasia	MMACHC	Papillon-Lefèvre syndrome	CTSC	Severe combined immunodeficiency, type athabaskan	DCLRE1C	
Abetalipoproteinemia	AAAS	Bloom syndrome	BLM	Congenital insensitivity to pain with anhidrosis (CIPA)	TSHB	Hypohidrotic ectodermal dysplasia, X-linked	MMADHC	Pendred syndrome	SLC26A4	Severe combined immunodeficiency, X-linked	IL2RG	
Achalasia-addisonianism-alacrima syndrome	SLC26A2	Canavan disease	ASPA	Congenital myasthenic syndrome, CHRN-related	NTRK1	Hyposphatasia, ALPL-related	MMAA	Peroxisome biogenesis disorder 1A (Zellweger)	PEX1	Short chain acyl-CoA dehydrogenase deficiency	ACADS	
Achromonogenesis, type 1B	CNGA3	Carbamoyl phosphate synthetase I deficiency	CPS1	Congenital myasthenic syndrome, DOK7-related	CHRN	Hyposphatasia, congenital, nongoitrous, 1	MMAB	Peroxisome biogenesis disorder 3A (Zellweger)	PEX2	Short/branched chain acyl-CoA dehydrogenase deficiency	ACADB8	
Achromatopsia, CNGA3-related	CNGB3	Caritinine deficiency	SLC22A5	Congenital myasthenic syndrome, RAPSN-related	DOK7	Inclusion body myopathy 2	GNE	Peroxisome biogenesis disorder 4A (Zellweger)	PEX6	Peroxisome biogenesis disorder 5A (Zellweger)	BDS	
Achromatopsia, CNGB3-related	SLC22A6	Carnitine palmitoyltransferase I deficiency	CP1A	Congenital neutropenia, HAX1-related	DOK7	Infantile neuroaxonal dystrophy 1	PLA2G6	Peroxisome biogenesis disorder 6A (Zellweger)	PEX10	Sjögren-Larsson syndrome	ALDH3A2	
Acrodermatitis enteropathica	ACOX1	Carnitine palmitoyltransferase II deficiency	CP2	Congenital neutropenia, VPS45-related	DOK7	Isolated growth hormone deficiency, type Ia/II	GH1	Peroxisome biogenesis disorder 6B (Zellweger)	PEX11	Stuve-Lemli-Optiz syndrome	DHCR7	
Acute infantile liver failure, TRMU-related	TRMU	Carpenter syndrome	SLC25A20	Corneal dystrophy and perceptive deafness	ITGB3	Isolated growth hormone deficiency, type IB	GHRHR	Persistent Müllerian duct syndrome, type 1	AMHR2	Spastic paraparesis type 15	ZFYVE26	
Acyl-CoA oxidase 1 deficiency	ABC1	Carnitine-acylcarnitine translocase deficiency	RAB23	Corticosterone methyloxidase deficiency	CYP11B2	Isolated growth hormone deficiency, type III, X-linked	BTX	Persistent Müllerian duct syndrome, type 2	PAH	Spinal muscular atrophy	SMN1 SC	
Adrenoleukodystrophy, X-linked	SLC12A6	Carnitine palmitoyltransferase II deficiency	RMRP	Costeff syndrome (3-methylglutaconic aciduria, type 3)	OPA3	Glutaric aciduria, type 1	IVD	Phenylketonuria	PHGDH	Sphingolipidic dysostosis, MESP2-related	MESP2	
Agensis of the corpus callosum with peripheral neuropathy (Andermann syndrome)	RNASEH2C	Cartilage-hair hypoplasia	CASO2	Creatine transporter defect (cerebral creatine deficiency, Y-linked)	SLC6A8	Glutaric aciduria, type 2A	TMEM216	Phosphoglycater dehydrogenase deficiency	POLG	Stargardt disease, type 1	ARCA4	
Aicardi-Goutières syndrome, RNASEH2C-related	TREX1	Catecholaminergic polymorphic ventricular tachycardia	CYP27A1	Crigler-Najjar syndrome	UGT1A1	Glutaric aciduria, type 2B	NPHP1	POLG-related disorders	PKHD1	Steroid-resistant nephrotic syndrome	NPHS2	
Aicardi-Goutières syndrome	SAMHD1	Cerebroretinal xanthomatosis	PPT1	Cystic fibrosis	GORAB	Glutaric aciduria, type 2C	NDUF1	Polyzystic kidney disease, autosomal recessive	TSEN54	Stuve-Wiedemann syndrome	LIFR	
Alkaptonuria	HGO	Ceroid lipofuscinosis, neuronal, 1	CTSD	Cystinosis	ITGB3	Glycogen storage disease, type II	NDUF5	Pontocerebellar hypoplasia	RARS2	Tay-Sach's disease	HEXA	
Alpha-1-antitrypsin deficiency	SERPINA1	Ceroid lipofuscinosis, neuronal, 10 (CLN10 disease)	TPP1	Cystinuria, type A	SLC4A11	Glycogen storage disease, type III (Cori/Forbes)	PLA2G6	Pontocerebellar hypoplasia, type 1 and 6, RARS2-related	VRK1	Pontocerebellar hypoplasia, type 1A	TTC37	
Alpha-mannosidosis	MAN2B1	Ceroid lipofuscinosis, neuronal, 2	CLNB	Cystinuria, type B	SLC4A11	Glycogen storage disease, type IV	RS1	Pontocerebellar hypoplasia, type 1B	EXOS3	Trichoto-enteric syndrome	HADHB	
Alpha-thalassemia	HBA1	Ceroid lipofuscinosis, neuronal, 3	CLNS	Cytochrome P450 oxidoreductase deficiency	POR	Glycogen storage disease, type IB	ETFB	Pontocerebellar hypoplasia, type 2D	SEPCS	Trifunctional protein deficiency	SEPCS	
Alpha-thalassemia	HBA2	Ceroid lipofuscinosis, neuronal, 5	CLN6	Cytchrome c oxidase deficiency	PET100	Glycogen storage disease, type II (Pompe disease)	ETFDH	Pontocerebellar hypoplasia, type 2E	VPP53	Tyrosinemia, type 3	HPD	
Alpha-thalassemia intellectual disability syndrome, X-linked	ATRX	Ceroid lipofuscinosis, neuronal, 6	MFS8	D-bifunctional protein deficiency	HSD17B4	Glycogen storage disease, type III (Cori/Forbes)	GALC	Pontocerebellar hypoplasia, type I	CYP1B1	Tyrosinemia, type I	FAH	
Alport syndrome, COL4A3-related	COL4A3	Ceroid lipofuscinosis, neuronal, 7	ATR	Ceroid lipofuscinosis, neuronal, 8 (a.k.a. Northern epilepsy)	CLN8	Deafness, autosomal dominant 36, autosomal recessive 7	AMT	Pontocerebellar hypoplasia, type 2F	IDS	Tyrosinemia, type II	TAT	
Alport syndrome, COL4A4-related	COL4A4	Ceroid lipofuscinosis, neuronal, 8 (a.k.a. Northern epilepsy)	NDRG1	Deafness, autosomal recessive 16	TM1C	Glycogen storage disease, type IV	LAMA2	Primary congenital glaucoma	GRHPR	Usher syndrome, type 1B	MYO7A	
Alport syndrome, X-linked	COL4A5	Charcot-Marie-Tooth disease type 4D	GJB1	Deafness, autosomal recessive 77	STRC	Glycogen storage disease, type V (McArdle disease)	GLDC	Primary hyperoxaluria, type 2	HOGA1	Ushers syndrome, type 1C	USH1C	
Alström syndrome	ALMS1	Charcot-Marie-Tooth disease with deafness, X-linked	LYST	Deafness, autosomal recessive 3	LOXHD1	Glycogen storage disease, type VII	G6PC	Primary hyperoxaluria, type 3	ATP8B1	Ushers syndrome, type 1D	CDH23	
Androgen insensitivity syndrome, X-linked	AR	Chediak-Higashi syndrome	VPS13A	Desbuquois dysplasia 1	M10YSA	Glycogen storage disease, type III	SLC37A4	Progressive familial intrahepatic cholestasis, type 1	ABC11	Ushers syndrome, type 1F	POLH15	
Argininemia	ARG1	Choreo-acanthocytosis	CHM	Dihydrolipoamide dehydrogenase deficiency	DLD	Glycogen storage disease, type II (Pompe disease)	CEP290	Progressive familial intrahepatic cholestasis, type 2	ABC4B	Ushers syndrome, type 2A	USH2A	
Argininosuccinate lyase deficiency	ASL	Choroideremia, X-linked	CYBA	Dihydropyrimidine dehydrogenase deficiency	DMD	Glycogen storage disease, type II	CEP290	Progressive familial intrahepatic cholestasis, type 3	WISP3	Ushers syndrome, type 2B	3 CLRN1	
Aromatase deficiency	CYP19A1	Chronic granulomatous disease, CYBA-related	CYBB	Dihydropyrimidine dehydrogenase deficiency	GAMT	Glycogen storage disease, type III (Cori/Forbes)	GALNS	Progressive pseudorheumatoid dysplasia	PEPD	Very long chain acyl-CoA dehydrogenase deficiency	ACADV1	
Arts syndrome, X-linked	PPRS1	Chronic granulomatous disease, X-linked	DNA1	Dopa-responsive dystonia	GBE1	Glycogen storage disease, type IV	GLB1	Pseudocholinesterase deficiency	PCCA	Propionic acidemia, PCCA-related	CYP27B1	
Asparagine synthetase deficiency	ASN5	Ciliary dyskinesia, primary 1	DNAH5	Duchenne/Becker muscular dystrophy	ABC412	Leber congenital amaurosis 2	GPAN3	Pseudocholinesterase deficiency	PCCB	Propionic acidemia, PCCA-related	VWF	
Aspartylglucosaminuria	AGA	Ciliary dyskinesia, primary 3	DKC1	Dysautonomia, familial (IKKAP or LP1)	HMOX1	Leber congenital amaurosis 8	DYSF	Propionic acidemia, PCCA-related	F2	Walker-Warburg syndrome, FKTN-related	FKTN	
Ataxia with vitamin E deficiency	TPA	Ciliary dyskinesia, primary 9	DNAL1	Dyskeratosis congenita, RTEL1-related	HFE	Leber congenital amaurosis, type I	LRPPRC	Prothrombin deficiency	BCHE	Werner syndrome	WRN	
Ataxia-telangiectasia	ATM	Ciliary dyskinesia, primary 16	DNAL1	Dyskeratosis congenita, X-linked	HFE2	Leber congenital amaurosis, type II	MUCPAC1	Pseudocholinesterase deficiency	ABC6	Wilson disease	ATP7B	
Ataxia-telangiectasia-like disorder 1	MRE11	Ciliopathies, RPGRIP1L-related	RPGRIP1L	Dystrophic epidermolysis bullosa, COL7A1-related	RTF2	Leber congenital amaurosis, type III	SGCD	Pseudoxanthoma elasticum	CTSK	Wiskott-Aldrich syndrome, X-linked	WAS	
Autism spectrum, epilepsy, and arthrogryposis	SLC35A3	Citrullinemia, type 1	ASS1	Ehlers-Danlos syndrome, type VIIIC	COL7A1	Leber congenital amaurosis, type IV	FKRP	Pseudodystostosis	PNPO	Wolcott-Rallison syndrome	EIF2AK3	
Autoimmune polyendocrinopathy syndrome, type I	AIRE	Citrullinemia, type II	EV1	Ellis-van Creveld syndrome, EVC-related	Hemophilic A	Limb-girdle muscular dystrophy, type 2A	FTRK	Pyridoxal 5'-phosphate-dependent epilepsy	ALDHTA1	Woolly hair/hypotrichosis syndrome	LIPH	
Autosomal recessive spastic ataxia of Charlevoix-Saguenay	SACS	Cockayne syndrome, type A	ECC8	Ellis-van Creveld syndrome, EVC2-related	Hemophilic B	Limb-girdle muscular dystrophy, type 2B	GPNM1	Pyridoxine-dependent epilepsy	PC	Xeroderma pigmentosum group A	XPA	
Bardet-Biedl syndrome 1	BBS1	Cockayne syndrome, type B	ERCC6	Emery-Dreifuss muscular dystrophy, 1-linked	ALDOB	Lipoprotein lipase deficiency	NEB	Pyruvate carboxylase deficiency	PDHB	Xeroderma pigmentosum group C	XPC	
Bardet-Biedl syndrome 10	BBS10	Cohen syndrome	VPS13B	Enhanced S-cone syndrome	TECP2	Long-chain 3-hydroxyacyl-CoA dehydrogenase deficiency	NPC1	Pyruvate dehydrogenase deficiency, PDHB-related	PDHA1	Xeroderma pigmentosum group E	DBD8	
Bardet-Biedl syndrome 11	TRIM32	Combined malonic and methylmalonic aciduria	ACSF3	Erythrokeratoderma variabilis et progressiva	NR2E3	Lowe syndrome, X-linked	SLC7A7	Pyruvate dehydrogenase deficiency, X-linked	ATP6V1B1	Xeroderma pigmentosum variant	POLH	
Bardet-Biedl syndrome 12	BBS12	Combined oxidative phosphorylation deficiency 1	GFM1	Escobar syndrome	GJB3	Myelin basic protein intolerance	LIPI	Retinal dystrophies, RBP1-associated	RLBP1	Xeroderma pigmentosum, group B	ERCC3	
Bardet-Biedl syndrome 2	BBS2	Combined oxidative phosphorylation deficiency 3	TFM	Ethymalonic encephalopathy	CHRNG	Myelin basic protein deficiency	MLYCD	Retinitis pigmentosa 25	EYS	Xeroderma pigmentosum, group D	ERCC4	
Bardet-Biedl syndrome 4	BBS4	Combined pituitary hormone deficiency 2	PRO1	Fabry disease	HPS1	Niemegken-Pudlak syndrome 1	NBN	Retinitis pigmentosa 26	CERKL	Xeroderma pigmentosum, group F	ERCC4	
Bardet-Biedl syndrome 6	MKKS	Congenital adrenal hyperplasia, 11-beta-hydroxylase-deficient	CYP11B1	Factor XI deficiency	GLA	Niemegken-Pudlak syndrome 3	GJB2	Retinitis pigmentosa 28	FAM161A	Xeroderma pigmentosum, group G	ERCC5	
		Congenital adrenal hyperplasia, 17-alpha-hydroxylase deficiency	CYP17A1	Familial dilated cardiomyopathy	TTN	Maple syrup urine disease, type 1A	DBT	Retinitis pigmentosa 59	DHDDS			