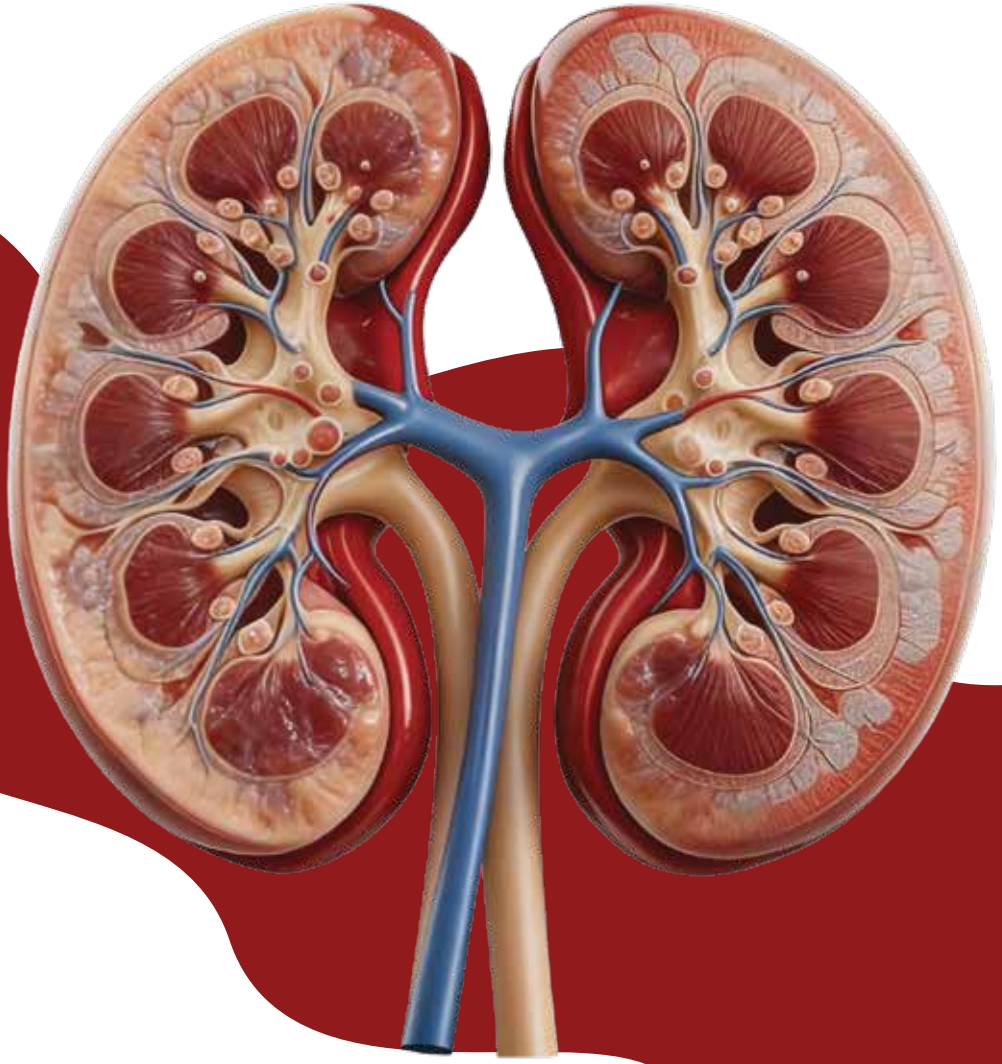
PREVENTIVE genomics

GUARDIANS OF RENAL WELLNESS:
DECODING YOUR GENETIC BLUEPRINT FOR
KIDNEY HEALTH



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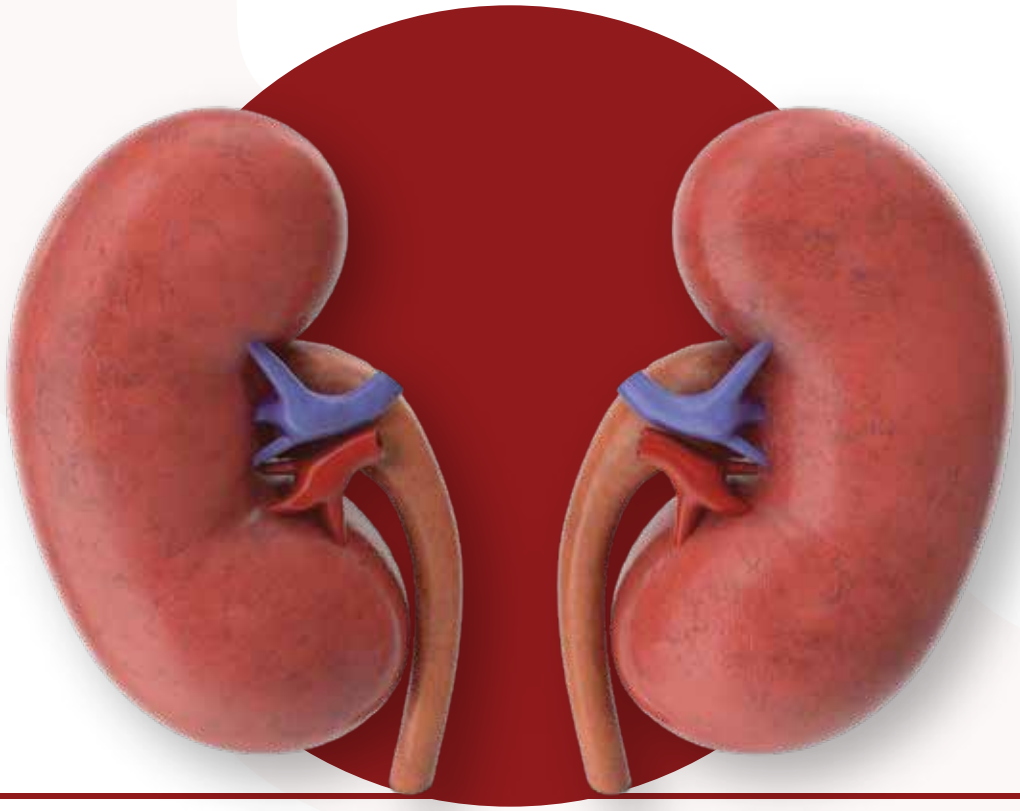
INTRODUCTION OF THE HEREDITARY RENAL DISORDERS RISK TESTING

Imagine the power of identifying hereditary kidney disorders **before irreversible kidney damage occurs.** Hereditary Renal (Kidney) Disorders Risk Testing is designed to detect **genetic variants** that may predispose individuals to a broad range of renal conditions—**affecting filtration, blood pressure regulation, electrolyte balance, acid–base homeostasis, and fluid control.**



Many kidney disorders progress silently for years, and patients may present only after substantial loss of renal function. By examining clinically relevant genes associated with renal development and function, this test can reveal variants linked to conditions such as **polycystic kidney disease, inherited nephrotic syndrome, tubulointerstitial kidney disease, and syndromic renal disorders.** With this information, healthcare professionals can confirm or refine a diagnosis, stratify risk, guide surveillance, and implement proactive management strategies aimed at protecting kidney function and improving long-term outcomes.

EMPOWER EARLY INTERVENTION : TRANSFORMING DIAGNOSIS AND TREATMENT FOR HEREDITARY RENAL DISORDERS

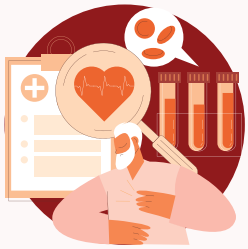
GENETIC TESTING FOR HEREDITARY RENAL DISORDERS OFFERS MAJOR ADVANTAGES FOR BOTH PHYSICIANS AND PATIENTS, INCLUDING :

Early Detection: Identifies clinically significant genetic variants even before symptoms arise, enabling early nephrology referral, surveillance, and preventative care.

Accurate Diagnosis: Differentiates between renal disorders with overlapping clinical features (e.g., proteinuria, hematuria, CKD, cystic kidneys), supporting precise diagnosis and targeted workup.

Personalized Treatment Plans: Helps tailor clinical decisions based on the underlying genetic cause impacting medication choices, monitoring intervals, transplant planning, and referral pathways.

Risk Assessment for Family Members: Because many renal disorders are inherited, testing helps identify at-risk relatives and supports cascade testing, early screening, and informed reproductive decisions.



Improved Patient Outcomes: Earlier diagnosis can reduce diagnostic delay, prevent avoidable complications (e.g., accelerated CKD progression, uncontrolled hypertension), and improve quality of life through proactive management.

DISEASES AND CONDITIONS RELATED TO HEREDITARY RENAL DISORDERS GENES

THE FOLLOWING ARE SOME CONDITIONS RELATED TO THE GENES INVOLVED IN HEREDITARY RENAL DISORDERS:

Autosomal Dominant Polycystic Kidney Disease (ADPKD) (Related Genes: PKD1, PKD2) - A common inherited cystic kidney disorder characterized by progressive cyst formation, hypertension, and variable progression to chronic kidney disease (CKD).

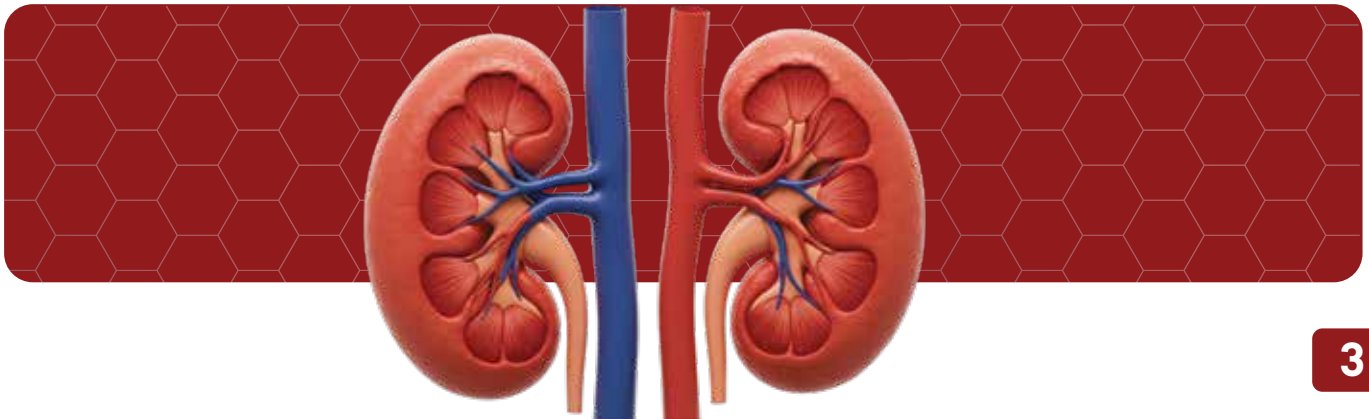
Autosomal Recessive Polycystic Kidney Disease (ARPKD) (Related Gene: PKHD1) - Typically presents in infancy or childhood with enlarged echogenic kidneys and congenital hepatic fibrosis; severity ranges from early renal failure to slower progression.

Alport Syndrome (Related Genes: COL4A3, COL4A4, COL4A5) - A hereditary basement membrane disorder causing persistent hematuria and progressive CKD; may be associated with hearing loss and ocular findings depending on the genetic subtype.

Thin Basement Membrane Nephropathy (TBMN) / Familial Hematuria (Related Genes: COL4A3, COL4A4) - Often presents with lifelong microscopic hematuria; in some individuals and families, the condition can be associated with proteinuria and progressive renal impairment.

Hereditary Nephrotic Syndrome / Genetic FSGS (Related Genes: NPHS1, NPHS2, WT1, INF2, ACTN4, TRPC6) - Inherited podocyte disorders presenting with proteinuria (often steroid-resistant), edema, and risk of progressive CKD/ESRD.

Autosomal Dominant Tubulointerstitial Kidney Disease (ADTKD) (Related Genes: UMOD, MUC1, REN, HNF1B) - A group of disorders characterized by slowly progressive CKD with minimal proteinuria; select subtypes may be associated with early gout, hyperuricemia, or congenital renal anomalies.

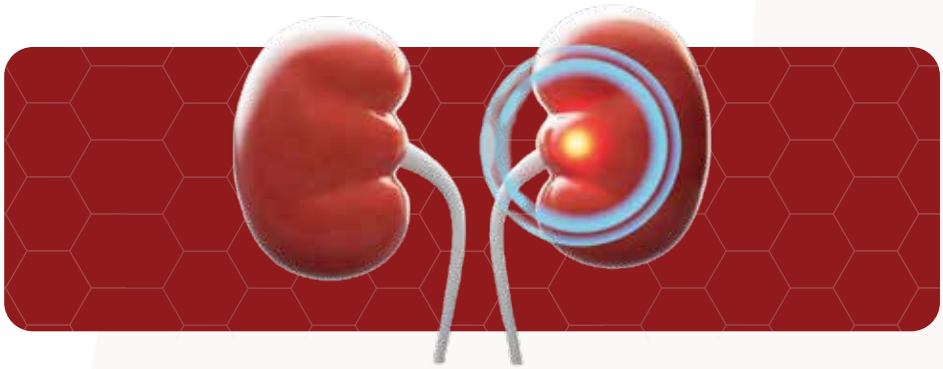


Congenital Anomalies of the Kidney and Urinary Tract (CAKUT) (Related Genes: PAX2, HNF1B, EYA1) - Developmental disorders that can include renal hypoplasia/dysplasia, reflux, obstructive uropathy, and structural abnormalities that may lead to CKD over time.

Nephronophthisis (Ciliopathy-Related CKD) (Related Genes: NPHP1, NPHP3, NPHP4, IQCB1, CEP290) - A common genetic cause of childhood and adolescent-onset CKD characterized by tubulointerstitial damage, impaired concentrating ability, polyuria/polydipsia, and eventual progression to ESRD.

Bartter Syndrome (Related Genes: SLC12A1, KCNJ1, CLCNKB) - An inherited salt-wasting tubulopathy presenting with hypokalemic metabolic alkalosis, dehydration risk, and growth concerns—often with early childhood onset.

Gitelman Syndrome (Related Gene: SLC12A3) - A typically later-onset salt-wasting disorder associated with hypokalemia, hypomagnesemia, muscle cramps, fatigue, and episodic weakness; many patients present in adolescence or adulthood.



GENE PANEL FOR HEREDITARY RENAL DISORDERS:

(393 - GENES PANEL)

ABCC6, ABCC8, ABCG2, ACE, ACTB, ACTG1, ACTN4, ACVRL1, ADA2, ADAMTS13, ADCY10, AGPAT2, AGT, AGTR1, AGXT, AHI1, ALG1, ALG13, ALG5, ALG8, ALG9, ALMS1, ALPL, AMN, ANKS6, ANOS1, AP2S1, APOA1, APOC2, APOE, APOL1, APOPT1, APRT, AQP2, ARHGAP24, ARL6, ATP6V0A4, ATP6V1B1, ATP7B, AVP, AVPR2, B2M, BBIP1, BBS1, BBS10, BBS12, BBS2, BBS4, BBS5, BBS7, BBS9, BCS1L, BICC1, BLK, BMP4, BMP7, BMPR2, BRAF, BSCL2, BSND, C3, C5, C8ORF37, CA2, CACNA1H, CACNA1S, CASR, CAV1, CD151, CD2AP, CDC73, CDKN1C, CEL, CEP164, CEP290, CFH, CFHR5, CFI, CHD1L, CHD7, CHRM3, CHRNA3, CISD2, CLCN2, CLCN5, CLCNKB, CLDN16, CLDN19, CNNM2, COA8 (APOPT1), COL4A1, COL4A3, COL4A4, COL4A5, COQ2, COQ6, COX10, COX14, COX20, COX6B1, COX8A, CPLANE1, CPT2, CREBBP, CRKL, CTNS, CUBN, CUL3, CYP11A1, CYP11B1, CYP11B2, CYP17A1, CYP24A1, CYP27B1, CYP2R1, DCDC2, DGKE, DHCR7, DLC1, DMP1, DNAJB11, DNASE1L3, DZIP1L, EBP, EDNRA, EGF, EIF2AK3, ELP1, ENPP1, EYA1, FAM20A, FAN1, FANCA, FANCB, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, FASTKD2, FGA, FGF10, FGF23, FGFR1, FGFR2, FLCN, FN1, FOXC1, FOXC2, FOXI1, FOXP3, FRAS1, FREM1, FREM2, FXYD2, G6PC, GALNT3, GANAB, GATA3, GATM, GCK, GCM2, GDNF, GLA, GLI3, GLIS2, GLIS3, GNA11, GNAS, GPC3, GREM1, GRHPR, GRIP1, GSN, HBB, HGD, HNF1A, HNF1B, HNF4A, HOGA1, HOXA13, HOXD13, HPRT1, HPS1, HPSE2, HSD11B2, HSD3B2, IFT122, IFT140, IFT172, IFT43, INF2, INS, INVS, IQCB1, ITGA3, ITGA6, ITGB4, ITSN2, JAG1, KANK1, KANSL1, KAT6B, KCNA1, KCNJ1, KCNJ10, KCNJ11, KCNJ18, KCNJ5, KCNK3, KCTD1, KL, KLF11, KLHL3, KRAS, LAMB2, LCAT, LDHA, LMNA, LMX1B, LPIN1, LRP2, LRP4, LRP5, LZTFL1, LYZ, MAFB, MAGI2, MAPKBP1, MC4R, MEFV, MKKS, MMACHC, MNX1, MOCOS, MUC1, MUT, MVK, MYCN, MYH9, MYO1E, NEDD4L, NEK8, NEUROD1, NF1, NLRP3, NOTCH2, NPHP1, NPHP3, NPHP4, NPHS1, NPHS2, NR0B1, NR3C1, NR3C2, NSD1, NSDHL, OCRL, OFD1, OPLAH, PALB2, PAX2, PAX4, PBX1, PCBD1, PDSS1, PDSS2, PDX1, PET100, PGK1, PHEX, PKD1, PKD2, PKHD1, PLCE1, PLCG2, PLG, PMM2, PPP3CA, PRKCSH, PRODH, PROKR2, PRPS1, PTPRO, PTPN11, PTH1R, RAD51C, REN, RET, RMND1, ROBO2, ROR2, RPGRIP1L, RPL11, RPL26, RPL35A, RPL5, RPS10, RPS17, RPS19, RPS24, RPS26, RPS7, RRM2B, SALL1, SALL4, SARS2, SCARB2, SCN4A, SCNN1A, SCNN1B, SCNN1G, SCO1, SDCCAG8, SEC63, SEMA3E, SI, SIX1, SIX2, SIX5, SLC12A1, SLC12A2, SLC12A3, SLC16A12, SLC22A12, SLC26A1, SLC2A2, SLC2A9, SLC34A1, SLC34A3, SLC36A2, SLC37A4, SLC3A1, SLC41A1, SLC4A1, SLC4A4, SLC5A1, SLC5A2, SLC6A19, SLC6A20, SLC7A7, SLC7A9, SLC9A3R1, SLX4, SMAD9, SMARCAL1, SMC1A, SOX17, SOX18, SRCAP, STAR, STK39, STX16, SYNPO, TACO1, TFAP2A, THBD, TMEM67, TNS2, TP53RK, TP63, TRIM32, TRPC6, TRPM6, TSC1, TSC2, TTC21B, TTC8, TTR, TXNL4A, UCP3, UMOD, UPK3A, UQCC2, VDR, VHL, WAS, WDPCP, WDR19, WDR72, WDR73, WFS1, WNK1, WNK4, WNT4, WNT5A, WT1, XDH, XPNPEP3, XRCC4.

TEST SPECIFICATIONS

Acceptable sample requirements
Buccal Swab or Saliva

Turnaround time - 7-10 Business days
Coverage _>96% at 20x

Reporting
Likely pathogenic and Pathogenic variants

Customization
Customizable Gene List

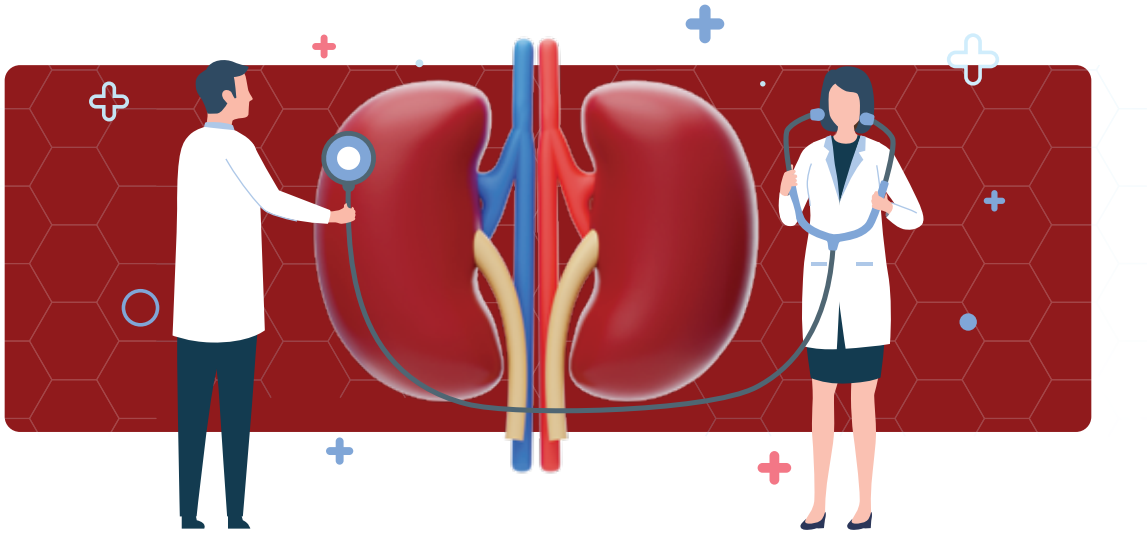
WHAT TO DO WHEN HEREDITARY RENAL DISORDERS GENETIC TESTING COMES BACK POSITIVE

IF GENETIC TESTING YIELDS A POSITIVE RESULT, IT IS IMPORTANT TO PROCEED AS FOLLOWS (CLINICAL ACTIONS DEPEND ON THE DISORDER, PATIENT AGE, AND SEVERITY):

Patient and Family Counseling: Review results with the patient (and family, when appropriate), discuss inheritance, clinical implications, and recommend genetic counseling.

Individualized Management Plan: Develop a disease-specific plan that may include blood pressure optimization, proteinuria management, avoidance of nephrotoxins, and targeted referrals.

Family Screening (Cascade Testing): Offer testing to at-risk relatives to clarify risk, support early detection, and guide preventive strategies.



Regular Monitoring: Implement periodic monitoring (e.g., renal function, urinalysis, imaging, electrolytes) and syndrome-specific evaluations (e.g., hearing/ocular assessments in Alport).

Preventive and Supportive Care: Support kidney health with patient education, nutrition guidance, medication review, and coordination of care to reduce progression risk and complications.

UNLOCKING THE SECRETS OF YOUR GENENTIC HEALTH COMPREHENSIVE GENETIC TESTING AT

PREVENTIVE GENOMICS, LLC

PREVENTIVE GENOMICS, LLC MAY BE A GOOD CHOICE FOR GENETIC TESTING FOR SEVERAL REASONS:

HIGH-QUALITY TESTING

Preventive Genomics, LLC uses advanced technology and have experienced technicians to ensure that the testing is performed to the highest standards.

FAST TURNAROUND TIME

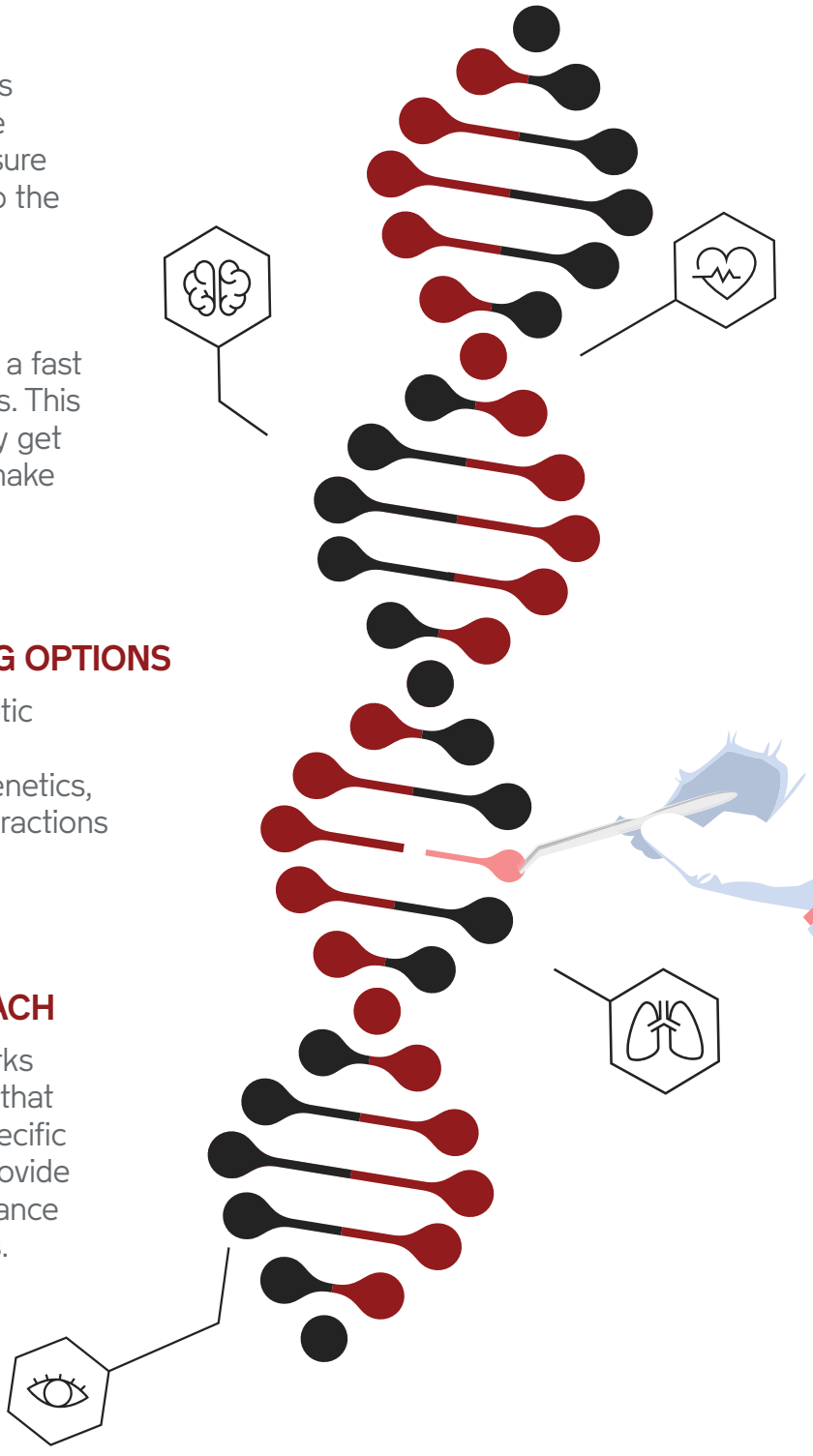
Preventive Genomics, LLC has a fast turn around time for test results. This means that doctors can quickly get the information they need to make informed decisions about their patients' treatment.

COMPREHENSIVE TESTING OPTIONS

We offer a wide range of genetic testing options, including tests for Diabetes predict, Cancer genetics, cardiovascular, Drug-Gene Interactions and Neurological disorders.

COLLABORATIVE APPROACH

Preventive Genomics, LLC works closely with doctors to ensure that the testing is tailored to the specific needs of each patient. They provide personalized support and guidance throughout the testing process.



DECODING THE MYSTERY OF GENETIC TESTING: **A PATIENT'S ROADMAP TO BETTER HEALTH**

Genetic testing is a medical test that examines your DNA to identify any changes or mutations that may beassociated with a specific disease or condition. This guide aims to provide you with an overview of genetic testing, its significance, testing outcomes, and how it could be beneficial to you and your family members.

WHAT IS **GENETIC TESTING?**

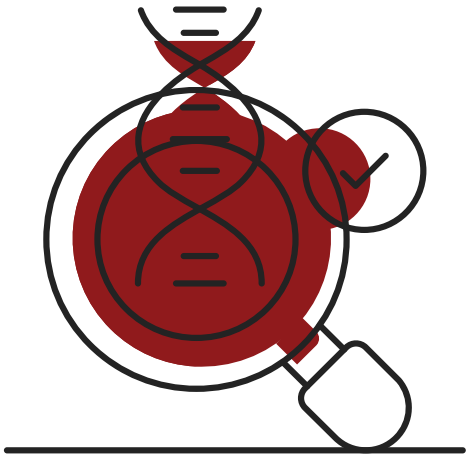
DNA is the genetic material that contains the instructions for thedevel-opment, growth, and function of all living organisms. Genetic testing can provide information about inherited diseases or conditions, predispositions to certain diseases, and the likelihood of passing these conditions onto your children.

WHY IS **GENETIC TESTING SIGNIFICANT?**

Genetic testing can provide valuable information that can help you and your healthcare provider make informed decisions about your health. It can help to:

DIAGNOSE GENETIC DISEASES:

Genetic testing can identify changes or mutations in genes that are associated with specific diseases or conditions. This information can help healthcare providers diagnose genetic diseases and develop appropriate treatment plans.



INFORM REPRODUCTIVE DECISIONS:

Genetic testing can help individuals and couples make informed decisions about family planning. If a genetic mutation is identified, it can be used to determine the likelihood of passing the condition onto future children.

DETERMINE THE RISK OF DEVELOPING A DISEASE:

Some genetic mutations are associated with an increased risk of developing certain diseases or conditions. Genetic testing can help identify these mutations, allowing for early intervention or prevention.

PERSONALIZE TREATMENT PLANS:

Genetic testing can provide information about how an individual may respond to certain medications or treatments. This information can help healthcare providers personalize treatment plans for betier outcomes.

TESTING OUTCOMES

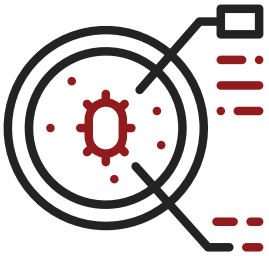
The results of genetic testing can be positive, negative, or uncertain. A positive result indicates that a genetic mutation associated with a specific disease or condition was identified. A negative result means that no mutations were identified. An uncertain result means that the test did not provide a definitive answer and further testing may be necessary.

HOW CAN GENETIC TESTING BE BENEFICIAL TO **YOU AND YOUR FAMILY MEMBERS?**

Genetic testing can be beneficial to you and your family members in several ways, including:

EARLY DETECTION AND TREATMENT:

Genetic testing can help identify conditions at an early stage, allowing for earlier treatment and better outcomes.

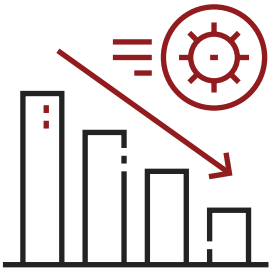


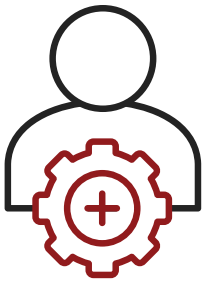
FAMILY PLANNING:

Genetic testing can help individuals and couples make informed decisions about family planning, such as whether to have children or how to manage the risk of passing on a genetic condition.

RISK REDUCTION:

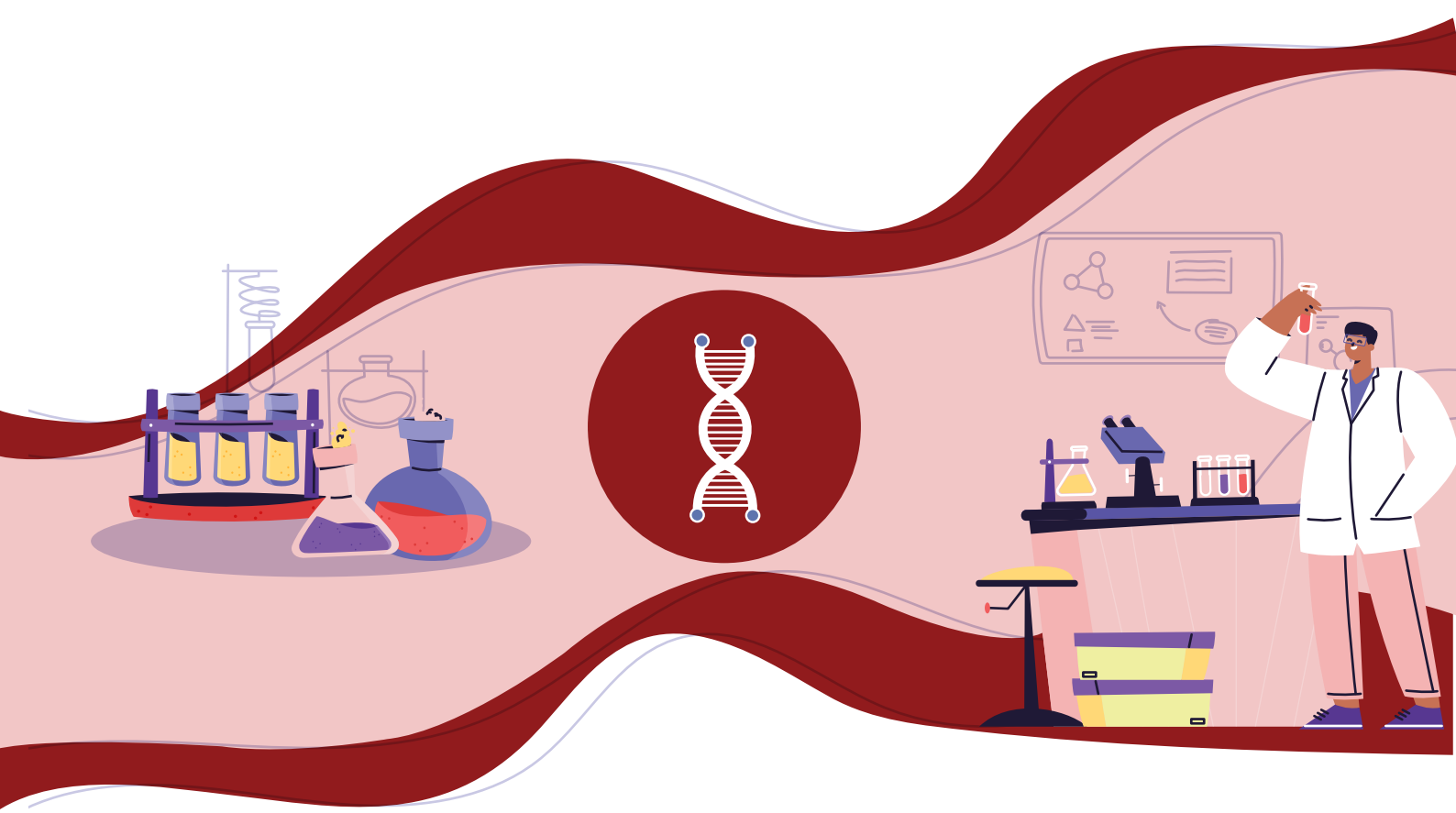
Genetic testing can help identify individuals at increased risk for certain diseases or conditions, allowing for early intervention and lifestyle changes to reduce the risk.





PERSONALIZED TREATMENT:

Genetic testing can provide information about how an individual may respond to certain medications or treatments, allowing for personalized treatment plans for better outcomes.



IF YOU ARE CONSIDERING GENETIC TESTING, IT IS IMPORTANT TO CHECK WITH YOUR HEALTH INSURANCE PROVIDER TO DETERMINE YOUR COVERAGE.

YOU CAN DO THIS BY:

REVIEWING YOUR INSURANCE POLICY:

Check your insurance policy or contact your insurance provider to see if genetic testing is covered and under what circumstances.

CONSULTING WITH YOUR HEALTHCARE PROVIDER:

Talk to your healthcare provider about whether genetic testing is medically necessary and covered by your insurance.

SEEKING PRIOR AUTHORIZATION:

Some insurance plans may require prior authorization for genetic testing, which means your healthcare provider will need to submit a request to your insurance provider for approval.

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