

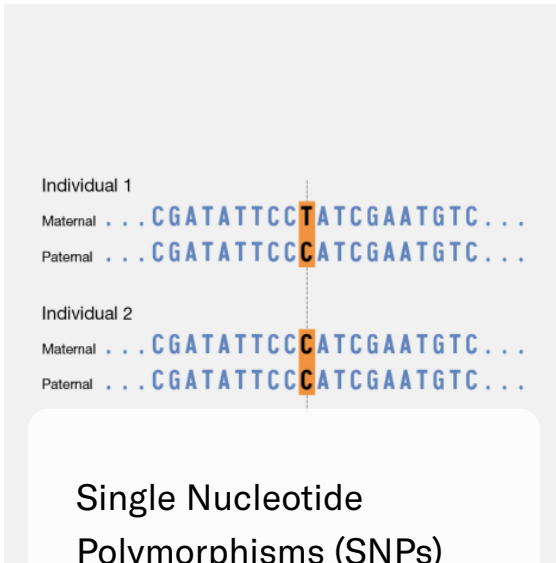


What are genetic allergy traits?



Allergy genomics investigates the link between our genes and allergies, revealing how our genetic makeup affects our response to allergens. This knowledge enables personalized allergy management, easing symptoms, identifying triggers, and enhancing quality of life. By studying allergy genomics, we gain insights into genetic and environmental factors behind allergic reactions, empowering individuals to effectively manage allergies for better health.

LifeNome's Genomic Process



Individual 1
Maternal . . . CGATATTCC**T**ATCGAATGTC . . .
Paternal . . . CGATATTCC**C**ATCGAATGTC . . .

Individual 2
Maternal . . . CGATATTCC**C**ATCGAATGTC . . .
Paternal . . . CGATATTCC**T**ATCGAATGTC . . .

Single Nucleotide Polymorphisms (SNPs)

SNPs are a type of genetic variation that occurs when a single nucleotide (A, T, C, or G) in the DNA sequence is different between individuals in a population. SNPs are the most common type of genetic variation in the human genome.



SNPs can be used as genetic markers to identify and study the relationship between genetic variation and traits or diseases. This association can be established by analyzing large datasets of genetic and phenotypic information from individuals with and without the trait of interest.



You Vs. The Population

Your likelihood of trait expression is the cumulative effect of multiple genetic and non-genetic factors compared to the average risk in the population. Combining polygenic risk assessment with population nutritional assessment can provide valuable insights into the genetic and environmental factors that contribute to nutritional health.

SNP Image Source: <https://www.genome.gov/genetics-glossary/Single-Nucleotide-Polymorphisms>

How to read your reports

Trait Name:

Name of the Genetic Trait

Assessment:

The assessment shows the genetic predisposition likelihood for this trait. A Low assessment means you are unlikely to have a predisposition for this trait. A Moderate assessment means you have a somewhat higher than average predisposition likelihood for this trait. A High assessment means you have a significantly higher likelihood of this trait than the average person in the reference population.

The screenshot shows a report for 'Allergy to Eggs'. It includes an introductory paragraph about egg allergies, a risk assessment section with four metrics: 'Your Genetic Risk: High', 'Your Rank: 70th Percentile', '8 / 13 Predisposing Variations', and '100% Coverage'. Below this is a 'Your Recommendations' section with advice on avoiding egg-containing products and consulting a doctor for a diagnostic test. The page number 'Page 8 of 66' is visible at the bottom.

Percentile score:

The population percentile shows where your genetic predisposition likelihood for this trait places you compared to the reference population.

Percentile score:

The population percentile shows where your genetic predisposition likelihood for this trait places you compared to the reference population.

Predisposing Variants:

Total predisposing genetic variants show the total number of genetic variants in your DNA sample that affect your predisposition likelihood for the trait.

Coverage:

The coverage reliability score shows what percentage of the target genetic variants for the trait were tested in your DNA sample. Ideally, the number should be closest to 100% to provide the best accuracy. Coverage reliability lower than 65% can mean that your assessment may not be as reliable because not enough genetic variants were present or correctly measured in the tested sample to provide an accurate result.

Recommendations:

Here are some general recommendations based on your assessment. Remember your health care provider's advice always overrules what is written here.

Traits to Prioritize

Here is a summary of your genetically-influenced traits that have a moderate or high likelihood of allergies. Explore the detailed report for each to learn why these traits deserve your attention and how to personalize your lifestyle for the best results.

Allergy to Cockroaches

High

Sensitivity to Chewing Sounds

Medium

Allergy to Dust Mites

High

Motion Sickness

High

Allergy to Eggs

Medium

Resistance to Stomach Flu

Medium

Allergy to Mold

High

Seasonal Mood and Energy Change

Medium

Gluten Sensitivity

Medium

Sensitivity to Mercury

Medium

Hay Fever

Medium

Sensitivity to PCB

High

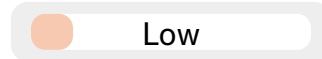
Lactose Intolerance

High

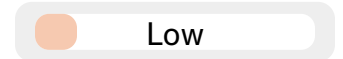
Traits without Significant Risk/Advantage

Here is a summary of allergy characteristics we've tested, and we've found no reason to believe your genetics would adversely affect them. Enjoy the peace of mind, knowing you don't need to worry about these potential allergies.

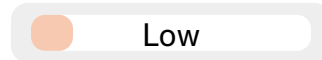
Allergy to Milk



Histamine Intolerance



Allergy to Peanuts



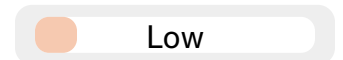
Mugwort Pollen Allergy Resistance



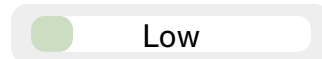
Allergy to Pets



Hearing Loss due to Loud Noises



Birch Pollen Allergy Resistance



Sensitivity to Benzene



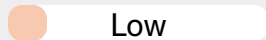
Grass Allergy Resistance



Allergy to Peanuts

Peanut allergy is one of the most common food allergies. Approximately three million people report allergies to peanuts and tree nuts. Even the slightest exposure may trigger peanut allergies, and they are challenging to manage because peanut is used in a variety of food products. Peanut allergy symptoms vary from a slightly itchy mouth or throat to nausea and congested nose to less common anaphylaxis, which is a potentially life-threatening reaction. Researchers estimate that genetics may account for up to 80% of peanut allergies.

Your Genetic Risk:



Low

Your Rank:

5th Percentile

0/4

Predisposing
Variations

80%

Coverage

Your Recommendations

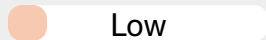
Checking ingredient lists can be a good way of avoiding accidental consumption of peanuts. Be aware of cross-contamination — even using a cutting board that had peanuts on it can be dangerous. Keeping an epinephrine injection device around can potentially be a lifesaver in the case of an allergic reaction.



Allergy to Milk

Milk allergy symptoms (different from lactose intolerance) occur a few minutes to a few hours after drinking or eating milk products. Immediately after consuming milk, signs, and symptoms of a milk allergy might include: hives, wheezing, and vomiting. Signs and symptoms that may take longer to develop include loose stools containing blood, diarrhea, abdominal cramps, coughing or wheezing, runny nose, watery eyes, and itchy skin rash. Genetic variations associated with milk allergy have recently been identified in extensive studies.

Your Genetic Risk:



Your Rank:

40th Percentile

2/8

Predisposing
Variations

100%

Coverage

Your Recommendations

Products that might contain milk include pastries, cakes, and butter. There are a variety of milk substitutes, such as oat milk, coconut milk, or soy milk. Not all animal milk contains the same proteins - goat's milk or sheep's milk can be safer alternatives.



Allergy to Eggs

The body's immune system may see the egg protein as a foreign invader and attack it, causing an allergic reaction. Egg allergy symptoms usually occur a few minutes to a few hours after eating eggs or foods containing eggs or even touching eggs for some people. Symptoms vary from mild to severe and can include skin rashes, hives, nasal congestion, vomiting, or other digestive problems. Eggs are one of the most common allergy-causing foods for children. Several genetic variations are associated with an increased risk of egg allergy.

Your Genetic Risk:

Medium

Your Rank:

95th Percentile

3/4

Predisposing
Variations

80%

Coverage

Your Recommendations

Try to avoid products that might contain eggs, such as cakes, ice cream, and mayonnaise. Remember that your allergy may not react the same way to all kinds of eggs — you may be more sensitive to some than others. Look out for skincare products that may contain egg proteins. Carrying around antihistamines may help ease discomfort if you come into contact with eggs. If you experience symptoms of an allergy after coming into contact with eggs, you may want to consult your doctor for a diagnostic test.



Gluten Sensitivity

Gluten is a protein found primarily in grains (wheat, rye, barley). Gluten sensitivity may affect up to 6 percent of the population. It is sometimes called non-celiac gluten sensitivity to distinguish it from celiac disease, which is an autoimmune condition. After eating foods with gluten, people with gluten sensitivity can experience abdominal pain, diarrhea or constipation, and bloating. Around 15% of individuals have gluten sensitivity, mostly influenced by their genetics.

Your Genetic Risk:

Medium

Your Rank:

90th Percentile

2/5

Predisposing
Variations

100%

Coverage

Your Recommendations

Try to avoid foods that can have hidden gluten, such as artificial coffee creamers, french fries, and chewing gums. Check out the labels, as some non-food items also contain gluten, including mouthwash, playdough, and makeup. Avoiding gluten can lead to deficiencies in other areas, so try to make sure you're getting all the nutrients you need, and consider taking supplements if you're not. Be aware of cross-contamination — even using a cutting board that had bread on it can be dangerous. If you experience symptoms of gluten sensitivity after coming into contact with gluten, you may want to consult your doctor for a diagnostic test.



Lactose Intolerance

Lactose intolerance means that the body cannot easily digest lactose, which is a natural sugar found in milk and dairy products. Symptoms include diarrhea, nausea, abdominal cramps, bloating and gas. Lactose intolerance symptoms generally show themselves after ingestion of food containing lactose. These include: milk, milkshakes and other milk-based beverages, whip cream and coffee creamer, ice cream/ice milk/sherbet, cheese of all kinds, butter, puddings and custards, cream soups and cream sauces. Lactose intolerance is a consequence of a deficiency of a lactase enzyme. Interestingly, up to 65% world's population have reduced ability to digest lactose. Two genetic variations have been frequently found in people (of European descent) who are lactose intolerant.

Your Genetic Risk:

High

Your Rank:

80th Percentile

2/2

Predisposing
Variations

100%

Coverage

Your Recommendations

Start using dairy milk substitutes, such as rice or soy milk. Avoid milk, cheese, yogurt, and ice cream, which are all high in lactose. Cut back on chocolate, lunch meats, certain kinds of salad dressing, and instant potatoes/soups, as they can all contain some amount of lactose. Talk to your healthcare provider about lactase supplements, which can be taken before meals containing a large amount of lactose to offset some of the symptoms of lactose intolerance. Always consult a physician or dietitian before making major changes to your diet.



Allergy to Mold

Mold are fungi that thrive both outside (in logs, fallen leaves, compost piles, grasses) and inside (in moist places like the bathroom, kitchen, basement). There are many different types of mold; some are visible by eye, others are not. Molds make spores that float in the air like pollen. But unlike plants that produce pollen, mold does not die with the first frost. Genetic variations associated with allergies to two types of mold fungus (Cladosporium and Alternaria) have been identified.

Your Genetic Risk:

High

Your Rank:

95th Percentile

1/3
Predisposing
Variations

100%
Coverage

Your Recommendations

Keep humidity low to deal with potential mold. Clean out your vents and open your windows to keep a good airflow. Fix potential sources of moisture, such as broken pipes or leaky faucets. Use an air conditioner and install central air conditioning with a high-efficiency particulate air (HEPA) filter attachment. Toss or recycle old books and newspapers — if left in damp places, such as basements, they can quickly become moldy. Use a dehumidifier in any area of your home that smells musty or damp — keep your humidity levels below 50%. Remember to clean the collection bucket and condensation coils regularly.



Allergy to Pets

Pet allergy is an allergic reaction to proteins found in an animal's skin cells, saliva, or urine. Signs of pet allergy include those common to hay fever, such as sneezing and runny nose. Some people may also experience signs of asthma, such as wheezing and difficulty breathing. Most often, pet allergy is triggered by the dead flakes of skin a pet sheds. Any animal with fur can be a source of pet allergy, but pet allergies are most commonly associated with cats and dogs (as well as horses and rats). Genetic variations in some genes have been associated with allergies to pets.

Your Genetic Risk:



Your Rank:

80th Percentile

2/6

Predisposing
Variations

100%

Coverage

Your Recommendations

Long-haired dogs and cats are more likely to trigger your allergy. Bathing pets more often helps get rid of dander. Thoroughly washing clothes, bedding, and pillowcases will minimize danger.



Allergy to Cockroaches

Cockroaches live in many locations worldwide, in all types of buildings and all kinds of neighborhoods. The saliva, feces, and shedding body parts of cockroaches contain a protein that can trigger allergies and even asthma in some people. A cockroach allergy is a trigger of year-round allergy and asthma. Common cockroach allergy symptoms include runny, stuffy, or itchy nose, itchy or red eyes, skin rash, cough, and mucus. People with some genetic variations have a higher risk of developing allergies to cockroaches.

Your Genetic Risk:

High

Your Rank:

90th Percentile

3/4

Predisposing
Variations

66%

Coverage

Your Recommendations

Fix leaky pipes under the sinks and in the basement to reduce cockroach access. Store food in airtight containers to keep cockroaches away. Use cockroach baits and traps to minimize cockroaches. Keep tables and floors free from crumbs and cover trash cans to avoid attracting cockroaches. Clean up stray cardboard and paper to reduce hiding spots for cockroaches. Don't use sprays, which can trigger allergies and asthma. If you suspect that you have a cockroach infestation, be sure to contact an exterminator immediately.



Allergy to Dust Mites

Dust mites are microscopic creatures related to ticks and spiders that live in house dust. The proteins in dust mite body parts and feces cause allergic reactions in some people. Dust allergy symptoms are similar to pollen allergies and include red, itchy, watery eyes, runny, stuffy nose, and sneezing. These symptoms persist all year round and feel like an endless cold or even asthma. Several genetic variations have been found to be associated with an increased risk of allergy to dust mites.

Your Genetic Risk:

High

Your Rank:

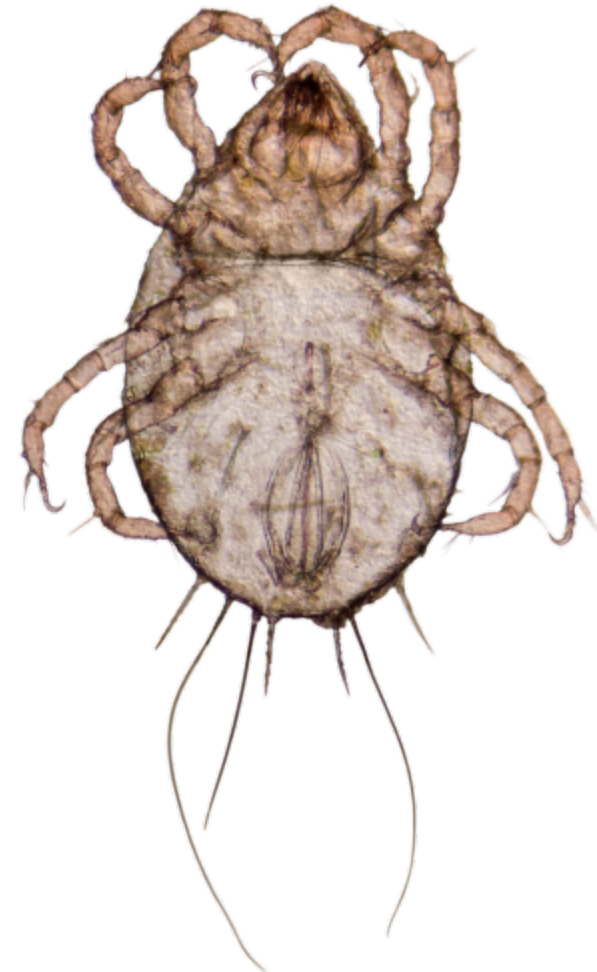
95th Percentile

10/11
Predisposing
Variations

100%
Coverage

Your Recommendations

Use dust-mite-proof covers on your mattresses and pillows with synthetic fillings. Wash your bedding in hot water every week, but avoid steam-cleaning bedding, upholstery, and curtains: increased humidity fosters future mite growth. Use natural fiber rugs that can be cleaned easily or hardwood, tile, or linoleum flooring, which helps you avoid dust mites. Use a vacuum cleaner with HEPA (high-efficiency particulate air) filter, or invest in the HEPA air purifier to remove allergens. Cut clutter, as anywhere that dust can gather is a place where dust mites can gather. Mop up hard floors (such as hardwood, tile, or linoleum) once a day to remove dust.



Resistance to Stomach Flu

Stomach Flu, or Norovirus, is not really the flu but a viral gastroenteritis, and the major cause of foodborne illness worldwide, responsible for at least 50% of all gastroenteritis outbreaks in the United States. It is caused by a nasty bug and it is very contagious and causes unpleasant symptoms that include abdominal pain, vomiting and diarrhea. About 30 percent of people of European ancestry and 20 percent of people with African ancestry carry the specific version of the genetic variation on the FUT2 (secretor) gene that prevents the most common strain of Norovirus bug to enter their digestive tract. Whether you have a typical predisposition to being infected by this bug or have genetic-based resistance, it is always a good idea to minimize the risks by following recommended procedures.

Your Genetic Strength:

Medium

Your Rank:
80th Percentile

1/1
Predisposing
Variations

100%
Coverage

Your Recommendations

Make sure you're washing your hands. Try to use soap rather than hand sanitizer, since the latter mostly works on bacteria. Try to avoid touching external surfaces, such as in the subway or shopping carts, which are common carriers of the virus. When there is an epidemic of stomach flu in your neighborhood, consider eating at home. A study published in the PLOS ONE found that restaurant dishes and silverware may be an overlooked place where people can catch stomach viruses.



Seasonal Mood and Energy Change

Seasonality or Seasonal Affective Disorder (SAD) is seasonal changes in mood and behavior. SAD begins and ends at about the same times every year. A study of over 4000 individuals identified several genetic variants with small additive effects that are significantly associated with SAD.

Your Genetic Risk:

Medium

Your Rank:

65th Percentile

5/8

Predisposing
Variations

72%

Coverage

Your Recommendations

Try to get more sun by getting out of the house more, opening blinds, or sitting closer to bright windows. You can also consider incorporating foods high in vitamin D into your diets, such as mushrooms, egg yolks, red meat, or fish. Set a regular sleep schedule for yourself to mitigate seasonality, especially during the fall and winter. Try to exercise regularly, as it can relieve stress and anxiety: two common symptoms of seasonality. Consider speaking with your primary care provider about light therapy, psychotherapy, or medication to help mitigate the symptoms of seasonality.



Motion Sickness

Motion sickness (sometimes referred to as travel sickness) is a common condition that occurs in some people who travel by car, train, airplane, or boat. Roughly one in three individuals is susceptible to motion sickness, and almost two-thirds report being sick in more severe conditions. A study on over 80,000 individuals yielded genetic variants associated with motion sickness. Interestingly, occurrences of motion sickness correlate with migraines, altitude sickness, morning sickness, postoperative nausea and vomiting, and poor sleeping.

Your Genetic Risk:

High

Your Rank:

95th Percentile

22/33
Predisposing
Variations

97%
Coverage

Your Recommendations

Avoid salty foods and alcohol before your trip, as both have been shown to worsen symptoms of motion sickness. This also applies to heavy or greasy meals, which can upset your stomach before a trip. Get fresh air when you start to feel motion sick - either open a window or point air vents so that they blow directly into your face. Avoid seats that face away from the direction you're moving. Instead, pick seats near the front of the vehicle, facing forward. Suck on hard candies made with peppermint or ginger to reduce the effects of motion sickness. If you have medication for motion sickness, make sure to take it before your trip.



Sensitivity to Chewing Sounds

Misophonia is a sensitivity to chewing sounds (from the Greek meaning hatred of sound). It is a newly recognized condition that is characterized by feelings of rage triggered by small sounds: people munching, gum chewing, sipping, footsteps, humming, which are called `trigger sounds` in the misophonia community. People who self-reported themselves as being sensitive to noise frequently have a genetic variation in the gene TENM2 that plays a role in brain development.

Your Genetic Risk:

Medium

Your Rank:

70th Percentile

1/1
Predisposing
Variations

100%
Coverage

Your Recommendations

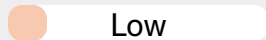
Try to get better sleep - it's been shown to reduce irritation caused by misophonia. Try to create noise-free zones as a safe place to avoid triggering sounds. Consider carrying around noise-canceling headphones to block out irritating triggers. Playing calming rain sounds through them adds a second layer of defense against anything that might cut through. Think about creating a calming mantra to distract yourself when leaving the room is not an option. Counterconditioning - pairing a weaker sound trigger with something that prompts positive feelings - has been shown to help mitigate symptoms of misophonia.



Hearing Loss due to Loud Noises

Noise-induced hearing loss is a temporary or permanent hearing impairment resulting from prolonged exposure to high levels of noise. Excessive noise exposure is the most common cause of hearing loss. This is particularly important for individuals who listen to music on headphones or work in high noise jobs such as construction or transportation. Several studies have identified genetic variations associated with an increased risk of noise-induced hearing loss.

Your Genetic Risk:



Your Rank:

75th Percentile

4/6

Predisposing
Variations

85%

Coverage

Your Recommendations

Headphones are preferable to earbuds, as they cover the entire ear instead of sitting directly within the ear canal. Your ears need rest, too - after a loud night (like at a party or a concert), they may need a few days of lowered exposure to noise in order to recover. Be wary of concerts, as you can't control the volume levels yourself without earplugs.



Mugwort Pollen Allergy Resistance

Mugwort is a perennial plant and a close relative of daisies, sunflowers, dandelions, and ragweed. Mugwort pollen is one of the main sources of hay fever and allergic asthma. Mugwort allergy symptoms are almost identical to seasonal allergies (sneezing, coughing, redness of eyes, itching, skin rashes). Recent studies identified advantageous genetic variations associated with a significantly decreased risk of allergy to mugwort pollen.

Your Genetic
Strength:



Your Rank:
55th Percentile

2/3
Predisposing
Variations

100%
Coverage

Your Recommendations

Showering and washing your hair every night can help keep pollen out of your bed. Clothes that have been outside for a while have likely accumulated pollen. Rain tends to clear the pollen from the air, making it safer to go outside if you're sensitive to it.



Hay Fever

Many different substances and pollen cause the allergic symptoms commonly called hay fever. While hay is not the only allergen that causes problems and it does not cause fever, this popular name appeared from early descriptions of sneezing, nasal congestion, and eye irritation while harvesting hay fields. Symptoms of hay fever include nasal congestion, a runny nose with clear mucus, sneezing, nose, eye itching, excess tears. Large genome-wide association studies identified multiple genetic markers associated with hay fever.

Your Genetic Risk:

Medium

Your Rank:

65th Percentile

17/31
Predisposing
Variations

96%
Coverage

Your Recommendations

Hay fever is commonly triggered by pollen, so consider staying inside or shutting windows on days with high pollen counts. Try to wash your bed sheets weekly and your hair daily to get rid of any pollen that's accumulated. Try to avoid grassy areas, especially in the morning or at night, as they tend to have higher pollen counts. This also applies to mowing the lawn - try doing it in the afternoon instead to avoid pollen. Consider wearing a mask while cleaning or gardening to keep out potential irritants or triggers. Consider talking to a healthcare provider about taking over-the-counter medicine to get relief from hay fever symptoms.



Histamine Intolerance

Histamine intolerance is caused by an excess of histamine because of an impaired function of the histamine-degrading enzyme diamine oxidase (DAO) and histamine N-methyltransferase (HNMT) that regulates airway response to histamine. Genetic variants in the key degradation enzyme diamine oxidase DAO and histamine N-methyltransferase (HNMT) are associated with histamine intolerance.

Your Genetic Risk:



Your Rank:

5th Percentile

0/7
Predisposing
Variations

100%
Coverage

Your Recommendations

Foods high in histamines include dried fruits, eggplants, avocado, and anything fermented - including alcohol. Additionally, some foods can release histamines stored in your body, including chocolate, citrus fruits, nuts, pineapple, shellfish, strawberries, and tomatoes. Water also acts as a natural histamine regulator.



Grass Allergy Resistance

Grass pollen is known to cause a variety of different allergic reactions. Grass pollen is most present in the air during the late spring and early summer months and can cause allergic rhinitis, allergic conjunctivitis, and asthma. Direct skin contact with grass, from sitting in the grass or mowing the lawn, can cause itching and eczema. A recent study identified advantageous genetic variations associated with lower incidents of grass allergy.

Your Genetic
Strength:



Low

Your Rank:
40th Percentile

1/3
Predisposing
Variations

100%
Coverage

Your Recommendations

Grass loves to cling to clothes - it's worth checking for it before going back home. Mowing the lawn throws a lot of clippings into the air, which could potentially trigger an allergy. High-pollen days tend to trigger allergies more frequently and severely.



Birch Pollen Allergy Resistance

Some people have genetic variations that make them more resistant to birch pollen allergies. In other words, people with this genetic variation have fewer incidents of allergies to birch (Betulaceae). Birch pollen is very allergenic pollen and is one of the primary triggers of hay fever. In people with allergies, it can also cause an asthma attack, conjunctivitis, and oral allergy syndrome that causes an itchy mouth after eating raw fruits, vegetables, or nuts. Genetics accounts for more than 60% of birch pollen allergies.

Your Genetic Strength:



Your Rank:
90th Percentile

1/3
Predisposing
Variations

100%
Coverage

Your Recommendations

Wear a mask or scarf over your face can keep pollen away. Keeping your windows and doors shut during peak pollen times can also ward off pollen. A dab of Vaseline just inside your nose can trap pollen, preventing an allergic reaction.



Sensitivity to Mercury

Mercury is a heavy metal found naturally in the environment. It is released into the air, water, and soil by factories and coal-burning power plants. In water, mercury changes its form and becomes methylmercury which is absorbed by fish. When this fish comes to your table, you absorb the mercury that may accumulate in your body and become harmful at high levels. Several studies show that levels of mercury in human blood and hair depend on a range of genetic variations.

Your Genetic Risk:

Medium

Your Rank:

80th Percentile

8/21
Predisposing
Variations

95%
Coverage

Your Recommendations

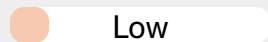
Take care when purchasing fish. Large fish, such as sharks, swordfish, or king mackerel, often have higher levels of mercury, while smaller fish, like tuna and sardines, are typically safer. Try to avoid older products that may still contain mercury, like fever thermometers and certain types of jewelry. If you live in an industrialized community, you may be at higher risk of mercury exposure. Consider wearing masks outside to keep out airborne mercury. Try to take extra care to avoid mercury if you're pregnant or nursing.



Sensitivity to Benzene

Benzene is an industrial chemical and a ubiquitous pollutant of air, largely from manufacturing and motor vehicle exhaust. Benzene may irritate the nose and throat and cause coughing, wheezing, headache, dizziness, and skin allergies. It is a documented carcinogen, and it may target different organs, including the liver, kidney, lung, heart, and brain. The P450 enzyme (CYP2E1) plays a major role in benzene metabolism, and genetic variations in this enzyme as well as in the EPHX1 and NQO1 genes increase susceptibility to benzene toxicity.

Your Genetic Risk:



Low

Your Rank:

40th Percentile

1/5
Predisposing
Variations

100%
Coverage

Your Recommendations

Roughly half of all exposure to benzene in the US comes from smoking tobacco or secondhand smoke. Organ meats and soft drinks tend to be high in benzene. Many products, such as adhesives, laundry detergents, nail polishes, synthetic fabrics, and dyes, still contain some levels of benzene.



Sensitivity to PCB

Polychlorinated biphenyls (PCBs) are a group of man-made chemicals. They are oily liquids or solids, clear to yellow in color, with no smell or taste. PCBs have been linked to various cancers, problems with the immune system and thyroid function, as well low birth weight, and slowed growth and development in children. People with lower activities of some cytochrome P450 enzymes may be under higher risk of PCB build-up due to their slower excretion rates from the body.

Your Genetic Risk:

High

Your Rank:

95th Percentile

12/26

Predisposing
Variations

83%

Coverage

Your Recommendations

Learn where your fish is sourced from. Some bodies of water contain more PCB than others, so learn what to avoid. Make sure to wash off fruits and vegetables, especially if they're from regions with high PCB counts, as they may be contaminated. Instead of frying your fish, sauté, bake, or roast them in order to release less PCB., Remove the skin before preparing the fish to limit PCB counts. If you've been exposed to dangerous levels of PCBs, be sure to liberally wash any affected areas with soap and water. Be sure to seek medical care if symptoms of PCB exposure persist.



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Use of third party genetics testing services

LifeNome does not do genetic testing, but relies on third party providers for genetic testing services. LifeNome uses your genetic testing data provided with your consent by the genetic testing service or yourself to produce genetically-influenced well-being reports only. The services provided by such third party providers is governed by their terms and conditions, which they will present the user upon registration with their service. LifeNome takes no responsibility for genetic testing services provided by third parties and is offering the ordering of the genetic testing services as a courtesy to the user.

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Indemnification

You agree to indemnify, defend and hold harmless LifeNome and its employees, officers, directors, agents and suppliers from and against all losses, costs, damages, and expenses (including reasonable attorneys' fees and expenses) related to any (A) violation by you of these Terms and Conditions, and (B) posting by you of material to this website.

LEGAL AGREEMENT AND TERMS AND CONDITIONS

Privacy Policy

LifeNome abides by the Genetic Information Nondiscrimination Act, or GINA, a U.S. federal legislation with bipartisan support that protects Americans from discrimination with respect to health insurance and employment decisions on the basis of genetic information. GINA has passed through Congress and was signed into law by the President on May 21, 2008. As a result, American insurance companies and health plans (including both group and individual insurers, as well as federally-regulated plans) will be prohibited from: looking at your predictive genetic information or genetic services before you enroll; “requesting or requiring” that you or your family members take a genetic test; restricting enrollment based on genetic information; or changing your premiums based on genetic information. GINA also prohibits U.S. employers (including employment agencies, labor organizations, and training programs) from: discriminating against whom they hire or how much they pay on the basis of genetic information; “requesting or requiring” that you or your family members take a genetic test; or disclosing your genetic information in their possession except under specific and specially controlled circumstances. We also abide by COPPA which applies to the online collection of personal information from children under 13. The new rules spell out what a Website operator must include in a privacy policy, when and how to seek verifiable consent from a parent and what responsibilities an

operator has to protect children’s privacy and safety online.

Data Usage and Storage

At LifeNome, you control your data and profile and can delete your data and profile at any time. This will erase your raw genetic data from our databases. The well-being reports generated will be kept for your future reference. LifeNome does not share any personally identifiable genetic information with any other third party entities. You understand that LifeNome may use your genotype and phenotype data as part of an aggregate and anonymous research analysis to improve its genomics algorithm.

Data Security

LifeNome takes the security of your data seriously. We use state-of-the-art security measures and encryption technologies to safeguard your personal information. You will be responsible for safeguarding your login information and should not share your authentication information to any third party. Please notify us of any unauthorized use of your password.

Statement of Limitations

LifeNome provides non-disease wellness information only. The information provided by LifeNome does not constitute medical advice and

is provided solely as complementary insight to assist you, your nutritionist, fitness instructor, and/or health-care provider in making more personalized decisions for your well-being. Genetic predispositions do not mean a condition is actually present. Many environmental and behavioral factors impact the actual presence of a condition.

Term

These Terms and Conditions are effective as of the effective date posted above, unless and until modified as provided above, or terminated at any time, by LifeNome.

Applicable Law

These Terms and Conditions and your use of the website shall be governed by the laws of the United States of America and the State of Delaware without regard to its conflicts of laws principles. This website and its contents are intended to comply with the laws and regulations in the U.S. If any provision in these Terms and Conditions is held to be unlawful, void or unenforceable, then such provision shall be severable without affecting the enforceability of all remaining provisions. LifeNome reserves the right to alter or delete materials from this website at any time at its discretion.