

Invention Of the Year

Your genome used to be a closed book. Now a simple, affordable test can shed new light on everything from your intelligence to your biggest health risks. Say hello to your DNA—if you dare

BY ANITA HAMILTON

What Your Gene Test Can Tell You

Above-average odds of living to 100

Short-term memory is average

If she was breast-fed, her IQ is slightly higher than average

Above-average risk for glaucoma

4% chance of getting age-related macular degeneration

Has wet earwax

Can taste bitterness in broccoli and cabbage

Average odds of getting throat cancer

Less than 1.4% chance of getting melanoma, the most dangerous kind of skin cancer

If she is a smoker, she probably lights up a little less frequently than other smokers

0.5% chance of getting esophageal cancer

Because she metabolizes caffeine slowly, she is more sensitive to its stimulating effects

Might have an elevated risk of a nonfatal heart attack due to slow caffeine metabolism

Not resistant to malaria

Less than 1% chance of getting stomach cancer

Below-average odds of blood vessels narrowing as a result of peripheral artery disease

Drinking black or green tea is moderately likely to reduce her chance of getting breast cancer

Not resistant to HIV/AIDS

Average odds of having an irregular heartbeat due to atrial fibrillation

Slightly elevated odds of getting the autoimmune disorder Sjögren's syndrome, which affects up to 4 million Americans

10% to 20% chance of getting gallstones

10% lifetime chance of getting colorectal cancer

Average chance of getting cluster headaches

Face does not flush red when she's tipsy

85% chance of having brown eyes

14% chance of having green eyes

Average sensitivity to sweaty odors

1% chance of getting mouth cancer

Does not have a sweet tooth

Less than 0.3% chance of getting larynx cancer

Higher than 10% odds of having dyslexia

Less likely than average to get asthma

14.5% chance of having a heart attack

6% chance of getting lung cancer

12% chance of developing breast cancer

Probably lactose tolerant

10% or lower chance of getting kidney disease

13% chance of getting dry, itchy skin from psoriasis

Not resistant to the stomach-flu virus known as norovirus

Regulates blood-sugar levels normally

Below-average chance of back pain due to lumbar-disk disease

Typical odds of remission from depression when treated with Celexa or Paxil

0.08% chance of getting the bowel disease called Crohn's

20% to 70% chance of sexual dysfunction when taking certain antidepressants



\$399

The Retail DNA Test

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Before meeting with Anne Wojcicki, co-founder of a consumer gene-testing service called 23andMe, I know just three things about her: she's pregnant, she's married to Google's Sergey Brin, and she went to Yale. But after an hour chatting with her in the small office she shares with co-founder Linda Avey at 23andMe's headquarters in Mountain View, Calif., I know some things no Internet search could reveal: coffee makes her giddy, she has a fondness for sequined shoes and fresh-baked bread, and her unborn son has a 50% chance of inheriting a high risk for Parkinson's disease.

Learning and sharing your genetic secrets are at the heart of 23andMe's controversial new service—a \$399 saliva test that estimates your predisposition for more than 90 traits and conditions rang-

Average odds of the placenta separating from her uterine wall during pregnancy

If she is unfit, she has typical odds of having high blood pressure

5% chance of having attention-deficit/hyperactivity disorder

0.08% chance of gluten intolerance due to celiac disease

The level of C-reactive protein, which is made in the liver, is normal, indicating an average risk for cardiovascular disease

If infected with HIV, she would have typical levels of the virus in her blood

No increased risk for alcoholism

3% chance of having restless-leg syndrome

Slightly below-average odds of developing knee osteoarthritis

Average nonverbal IQ

Average sensitivity to pain

0.1% chance of having the rare autoimmune condition ankylosing spondylitis

Slim chance of being a track star

If she takes an antipsychotic, she has about a 1% to 36% chance of involuntary tics from tardive dyskinesia

0.18% chance of getting the autoimmune disease lupus

Schizophrenia risk is unknown

Less than 0.001% chance of developing the neurological disorder progressive supranuclear palsy

Average level of HDL ("good") cholesterol

Had a 0.001% chance of getting the rare and often fatal childhood cancer neuroblastoma

Average number of freckles or moles

Slightly elevated odds of getting gout

If alcohol-dependent, she has typical odds of getting withdrawal seizures

Less than 2% chance of getting Parkinson's disease

0.2% chance of developing Type 1 diabetes

2% to 10% chance of having endometriosis

Less than 1% chance of having an acute form of pre-eclampsia when pregnant

No increased odds of having red hair

Up to 25% chance of developing uterine fibroids

Risk for obsessive-compulsive disorder is unknown

18% chance of getting Type 2 diabetes

Almost no chance of developing Lou Gehrig's disease (ALS)

Her babies are likely to weigh 2 oz. less than average at birth

2.8% chance of developing rheumatoid arthritis

Not a carrier for cystic fibrosis

24% chance of developing blood clots in veins (venous thromboembolism)

Average odds of heroin addiction

Increased odds of getting multiple sclerosis

58.4% chance of becoming obese by age 59

Good at learning to avoid mistakes

Unlikely to have red-blood-cell damage due to lack of the critical enzyme G6PD

1% or lower chance of being bipolar

Not a carrier for sickle-cell anemia

The beta blocker bucindolol would not be effective if she had heart failure

Her sons have an average chance of developing male-pattern baldness

One-in-a-million chance of getting Creutzfeldt-Jakob disease, the human version of mad-cow disease

Unknown odds of being freaked out by these test results