

# 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