



Better Health Through Genetics

I. 23andMe Information

www.GettoKnowYourDNA.com

www.23andme.com

<https://www.23andme.com/howitworks/>

<https://www.youtube.com/watch?v=3oTaydRPM3w>

What is DNA (raw data): DNA is in every cell of the body. Made of chemical bases (4), attached to a sugar and phosphate molecule called a nucleotide (2 long strands/double helix) these long strings of nucleotides form genes, and groups of genes are packaged tightly into structures called chromosomes. The sequence of bases in a portion of a DNA molecule, called a gene, carries the instructions needed to assemble a protein/enzyme. DNA can replicate itself and when this happens sometimes the genetic instructions from the existing cell divides to make a new cell are copied incorrectly which leads to **variations** in the DNA sequence. This is called a single nucleotide polymorphism, known as **SNP** (pronounced “snip”). Most SNPs do not cause any observable differences. The location and total number of SNPs a person has may influence their susceptibility to health issues or impact how they react to certain drugs or even specific foods.

What is 23andMe Testing? The human genome has 3 billion positions and has taken scientist 10 years and billions of dollars to analyze every base pair for a single person. Sequencing looks at every single one of the 3 billion base pairs. Genotyping analysis is 23andMe’s approach. They look at 602,000 positions called SNPs. Unrelated people have 99.9% identical genetic sequences positions where base pairs are known to vary are called SNPs. Scientists have identified around 10 million SNPs out of the possible 3 billion base pairs. Not all of the SNPs have known function at this time but it is known that it can differ from person to person. The 602,000 SNPs that 23andMe tests for have been well studied contributions to health, traits & ancestry.

What 23andMe Provides: 23andMe is the registered trademark of 23andMe, Inc. and uses saliva to test your DNA, providing you with genetic information (raw data) to help you understand what your DNA says about your health, traits and ancestry and allows you to share and compare with family and friends. You also receive ongoing reports as new genetic discoveries are made and 23andMe are able to clear new reports through the FDA. *This information is different from what the MethylGenetic Nutrition Analysis™ Program offers.*


How MGNA™ Interprets the 23andMe Raw Data – DNA, environment and lifestyle affect the expression of SNPs and how you absorb, utilize nutrition and eliminate toxins and by products. Genetic variations impact us differently. These inherited genetic issues may inhibit someone from making enough antioxidants (good guys), or may cause us to produce too many oxidants (bad guys) causing free radicals and oxidative stress which may lead to inflammation on a cellular level. Cellular damage may lead to slower rebuilding and repair of cells and ultimately faster aging. MGNA™ is here to help support patients and clients nutritionally by providing researched data, and a closer look at your genetic makeup as it relates to the building blocks needed for energy, enzyme production, anti-aging, detoxification, etc.

Basic Premise of MethylGenetic Nutrition Analysis™ & 23andMe – Knowing your genetic makeup is very helpful to better target your nutritional needs. By collecting an individual’s DNA and using the raw data, a practitioner can better understand how varied genetic sequences (the ones that were not copied perfectly from our parents) relate to the expression of deficiencies in the nutritional pathways. Genetic variation may impact your ability to make and use different nutrients critical for circulatory, immune and even emotional health. Everyone is susceptible in their own unique way.

Our reason for collecting raw data from 23andMe – To help identify and bring into balance variances within the methylation pathways and other biological functions. We are specializing in nutritional genetic testing and support. Going further in our research to understand free radicals and oxidative stress as the root cause of health challenges, and the imbalances they cause to understanding the antioxidants made by the body to rebuild and repair damaged cells. Inherited genetic issues may inhibit proper function of the body’s critical components to bring balance, energy and healthy rebuilding of your cells.

A 23andMe Saliva Test Kit - Cost – \$199 (US\$)

What is tested – Saliva. **Purchasing 23andMe Test Kits** can be purchased at store.23andme.com. Typically arrives within 3 to 5 days.

 **Register your saliva sample tube using the barcode** so they know it belongs to you, and mail it back to our lab in the pre-paid package. **Collecting Saliva Sample** Follow kit instructions to spit in the tube provided — all from home.

- No food or drink (see instructions) for 30 minutes prior to collection
- Ships United States Postal Service (USPS)

How to Collect Saliva

1. Fill vial up to black line with pure liquid saliva (not bubbles or mucus)
2. Close funnel cap to release preservative solution into vial
3. Unscrew funnel cap
4. Screw on smaller cap
5. Put vial in plastic bag provided and seal
6. Place in plastic container

Turn Around Time –3 weeks once sample is received

Results Received via – Email - in approximately 3 weeks, you will receive an email to let you know your reports are ready in your online account. Log in and start discovering what your DNA says about you.

Downloading 23andMe Raw Data from the 23andMe website.

Patient/Client Instructions:

How to Download your Genome from the NEW 23andMe Website and Send to a Doctor/Practitioner

Your genome is ready to download when you receive an e-mail that says 'Your initial reports are ready'

****YOU MUST USE A COMPUTER TO DOWNLOAD YOUR GENOME. YOU CANNOT USE A MOBILE DEVICE****

1. Go to 23andMe.com
2. Click 'sign in'
3. Enter your 'Email address' and 'Password' into the corresponding fields
4. Click 'LOG IN'

If this is the first time you are logging in:

You will see a WELCOME screen. Click on 'Get started' at the bottom

Complete your profile – Name, Birthday, Sex & Country you live in. Click 'Save'

Ethnicity Information – You will be asked 3 basic questions regarding your ethnicity – Click 'Start'

After you answer the questions, Click 'Continue'

Choose your reports – You can choose to INCLUDE or EXCLUDE the Carrier Status reports

Complete your Health Profile – You can skip this and come back to it later. Click 'Take me to the Home page instead'

5. Along the top of the page, Click 'Tools'
6. Scroll down to 'Raw Data' on the bottom right. Click 'Browse your data'
7. Raw Data Opt-In – Read and Click 'I understand'
8. Along the top, Click 'Download Raw Data'
9. Scroll to the bottom. Leave 'All DNA' in the first box. Re-enter your password in the second box.
10. Click 'Download Raw Data'
11. **Save this file where you can easily find it**
12. The file will download as a .zip or .txt file, this is what we need, DO NOT OPEN OR SAVE AS PDF
13. Once the file has downloaded, attach it to an e-mail and send it to DrDean@GallagherChiro.com
14. PLEASE include the FULL name (middle initial included) and birthdate of the person whose file you are sending
15. PLEASE only send 1 file per e-mail as they are large files

OLD WAY of Downloading and Running 23andMe Reports (if the account with 23andMe is older and has not been updated)

How to download your Genome from 23andMe if your account has not been updated.

Your genome is ready to download when you receive an e-mail that says **'Your initial reports are ready'**

1. Go to 23andMe.com
2. Click 'sign in'
3. Enter your 'Email address' and 'Password' into the corresponding fields
4. Click 'LOG IN'
5. In the upper right-hand corner, click on the dropdown menu where your name is located and select 'BROWSE RAW DATA'
6. Click on 'DOWNLOAD' below your name in the upper right-hand corner
7. Enter your 'Password' and 'Secret answer'
8. Select the 'Profile' you wish to download
9. Leave the 'Data set' at "All DNA"
10. Click 'Download Data'
11. **Save this file where you can easily find it**
12. The file will download as a .zip file, this is what we need, DO NOT OPEN OR SAVE AS PDF
13. Once the file has downloaded, attach it to an e-mail and send it to DrDean@GallagherChiro.com.
14. PLEASE include the FULL name (middle initial included) and birthdate of the person whose file you are sending
15. PLEASE only send 1 file per e-mail as they are large files