



# I received my DNA results!

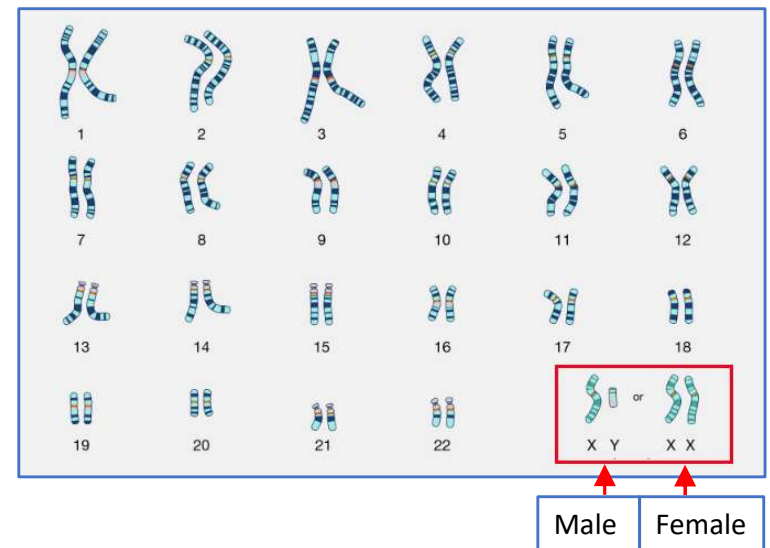
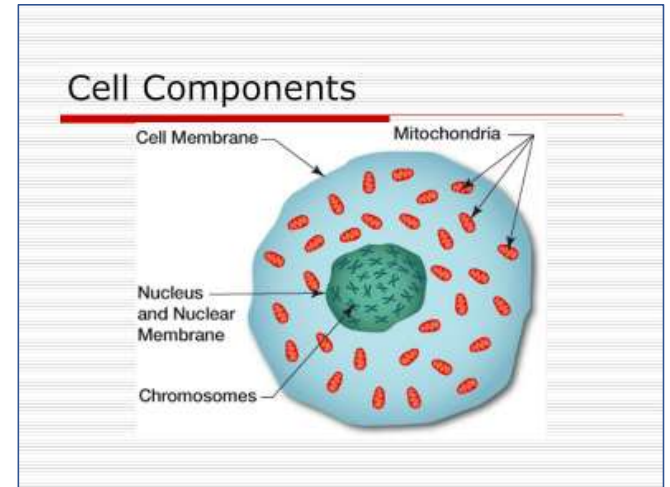
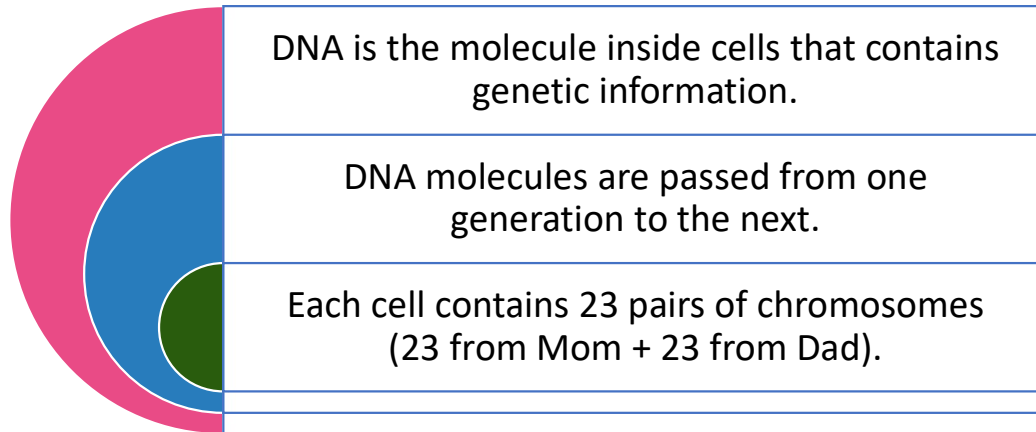
## Now What Do I Do With My Thousands of Matches?

# Agenda

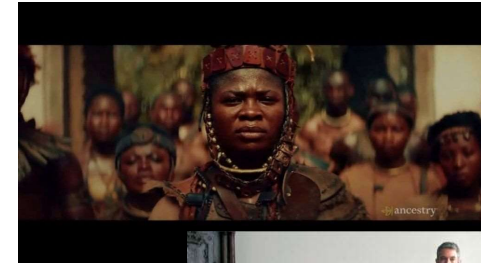
- DNA and DNA testing
- A little bit of science & history
- DNA test results
- Selecting your “best matches”
- Tips for contacting your “best matches”



# What is DNA?



# Why should you get a DNA test?



# Which companies do DNA testing?

Company	Test Type	Comments
AncestryDNA	Saliva	More testers than all other companies
23andMe	Saliva	Can also provide traits and genetic health risks
MyHeritage	Swab	Tools to analyze DNA matches, health tests + lots of photo tools
FamilyTree DNA	Swab	Proved atDNA, Y-DNA, and mtDNA tests <a href="#">Will send kit to funeral home.</a> *
Living DNA	Swab	Specializes in British & Irish ancestry



\* <https://www.yourdnaguide.com/ydgblog/dna-testing-deceased-dying#:~:text=DNA%20testing%20for%20a%20relative,is%20recently%20deceased%20is%20possible>

# How many DNA tests has each company done?

Ancestry = 23M

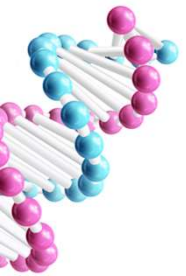
23andMe = 12.8M

MyHeritage = 6.5M+  
(#1 tester in Europe)

Family Tree DNA = 1.2M

Living DNA = 300K

Source: [https://isogg.org/wiki/Autosomal\\_DNA\\_testing\\_comparison\\_chart](https://isogg.org/wiki/Autosomal_DNA_testing_comparison_chart)



Which companies should I test with?

**Ancestry**

And / or

**23andMe**

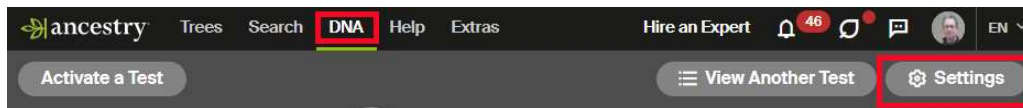
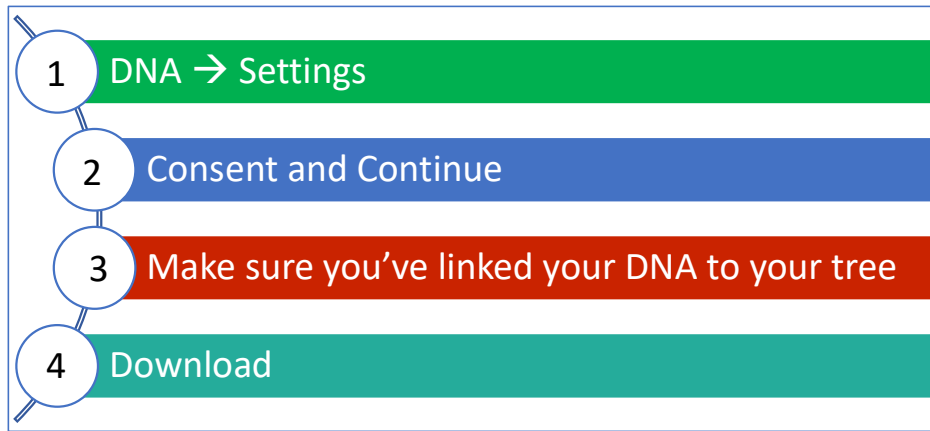
 **ancestry.com**

 **23andMe**

Then transfer DNA to  
MyHeritage & FTDNA

# Downloading is easy (and free)

## Example: download DNA file from Ancestry



### Download DNA test

You can download a .zip file of your DNA Data. Downloaded data is subject to [AncestryDNA Terms and Conditions](#) and [AncestryDNA Privacy Statement](#). [What is DNA Data?](#)

I understand that after I download my DNA Data, it will no longer be protected by Ancestry and I will assume all risk of storing, securing, and protecting this information.

**Continue** Cancel

---

#### Test details

These are all details about you and your test.

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#### Link DNA to tree

You can link your DNA test to your family tree.

DNA link Linked to Benjamin Fredric Kempner in Kempner-Traunstein Family Tree >

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#### Download or delete

You can download your DNA data or permanently delete your test.

**Download DNA data** >

Delete DNA test >



# Uploading is easy (and free)

Example: upload DNA file to MyHeritage

- 1 DNA → Upload DNA data
- 2 Make consent choices
- 3 Select the DNA file that you downloaded
- 4 Upload

## Upload DNA data

If you or your family members have already taken a DNA test with another provider, you can upload the DNA data to MyHeritage and receive DNA Matches for FREE\*.

[Start](#)

Haven't tested your DNA yet? [Order your DNA kit](#)

The screenshot shows the MyHeritage website interface. The user is logged in as Ben Kempner. The navigation bar includes 'Home', 'Family tree', 'Discoveries', 'Photos', 'DNA', and 'Research'. The 'DNA' menu is open, showing options: Overview, Ethnicity Estimate, DNA Matches, DNA Tools, Manage DNA kits, Upload DNA data (highlighted with a red box), and Order DNA kits. A 'Christmas DNA Sale' banner is visible, advertising kits for \$39 (down from \$89) with free shipping on 2+ kits.

## Review and Upload

Please review all the information you have provided and then click the "Upload" button to select the DNA data file you want to upload.

Terms and Conditions and Privacy Policy	✓ Accepted
Processing of genetic data	✓ Accepted
Upload for personal use	✓ Accepted
Enabling DNA Matches	✓ Accepted
Sharing Ethnicity Estimate and Genetic Groups	✓ Accepted
Sharing DNA segment data	✓ Accepted
Participation in research	✓ Accepted

[Upload](#)

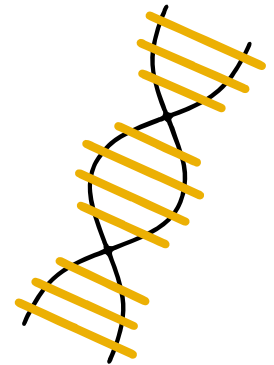
## Q: What do you get for free?

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A: You will see all your DNA matches for people who tested or uploaded their DNA to MyHeritage (or FTDNA or Living DNA or GEDmatch, etc.)

If you want to use the DNA analysis tools such as a chromosome browser that the company has, you pay:

- MyHeritage = \$29
- Family Tree DNA (FTDNA) = \$19
- Living DNA – free (limited tools)
- GEDmatch = free, advanced tools = \$10/month



Wow – so many matches!

My DNA matches	
Ancestry	157,645
23andMe	1,502 (max that they show)
MyHeritage	21,274
Family Tree DNA (FTDNA)	35,132
TOTAL	215,553



If you are genetically Jewish, you may ask these Four DNA Questions:

**WHY IS MY DNA DIFFERENT FROM ALL OTHERS?**

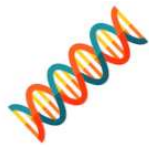
**WHY DO I HAVE SO MANY MATCHES?**

**WHY DO SOME OF MY MATCHES HAVE SO MANY  
DNA SEGMENTS?**

**WHY DO I HAVE SMALL SEGMENTS OF SHARED DNA?**



Just a little bit more science...



# Where does your DNA come from?

Source of DNA

% of your DNA

What genetic genealogists call this

1. From your parents and their ancestors



Most shared DNA

Identical by Descent (IBD)

2. Many people from same population carry the same DNA segment(s) (endogamy)



Depends on your ethnicity or location

Identical by Population (IBP)

3. By chance




If it happens, it's with very short segments (< 5 cM)

Identical by Chance (IBC)

## What is endogamy?

Practice of marrying within the same ethnic, cultural, social, religious or tribal group



Over several generations, descendants of this population begin to share many segments of DNA with each other

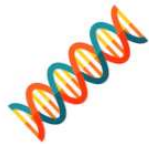
# A few examples of endogamous groups

- Jews
- Polynesians
- Low German Mennonites
- Amish
- Acadians or Cajuns (French settlers in what is now Nova Scotia)
- French Canadians
- People from many Arabic countries
- Newfoundlanders
- People from many islands
- Members of the Church of Jesus Christ of Latter-day Saints



How did Jewish endogamy occur?

A little bit of history...

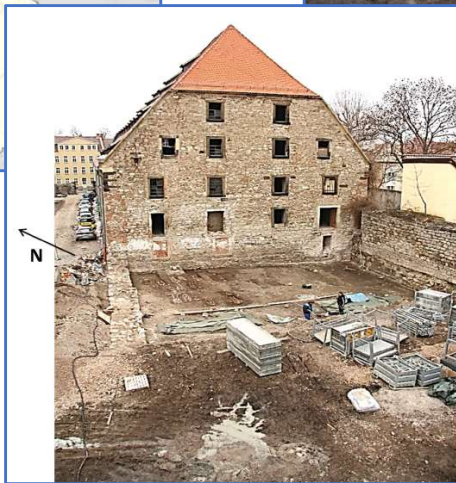


# Ashkenazic, Sephardic and other Jews



Video source: <https://www.youtube.com/watch?v=M-TjGJ9bgKQ&t=125s>

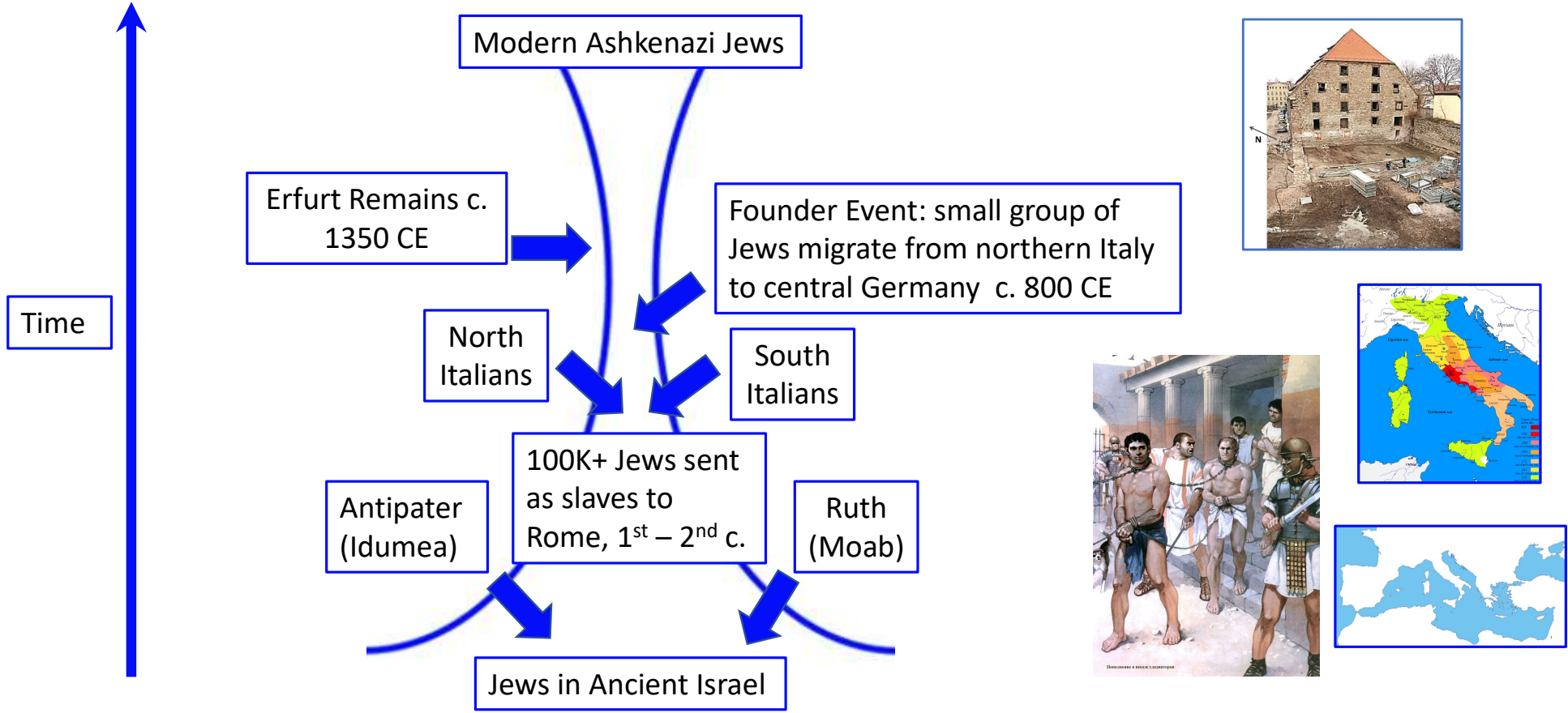
# Ancient DNA from medieval Germany tells the origin story of Ashkenazi Jews



- 2013 construction to build a parking lot in Erfurt, Germany uncovered a 14<sup>th</sup> century Jewish cemetery.
- Study published in 2022 led by scientists from Harvard and the Hebrew University of Jerusalem
- Results suggested that Ashkenazi Jews originated in this area sometime before the 14<sup>th</sup> century

Sources: <https://www.mpg.de/19586285/ancient-dna-from-medieval-germany-tells-the-origin-story-of-ashkenazi-jews>  
<https://www.smithsonianmag.com/history/how-construction-of-a-parking-lot-uncovered-new-insights-about-medieval-jews-180981222/>

# The migration from the Middle East through Italy to Germany

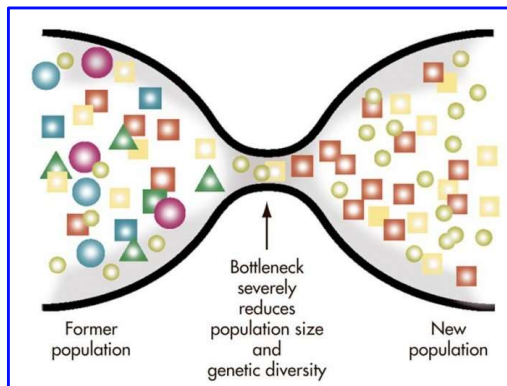


Source: <https://www.youtube.com/watch?v=89D2RDgzLLE&t=723s>

# Founder Event and Genetic Bottleneck reviewed

## Founder Event:

- Occurs when a small group becomes separated from the larger population.
- Over time, new subpopulation (i.e., Ashkenazis) will have the genes of the initial small group

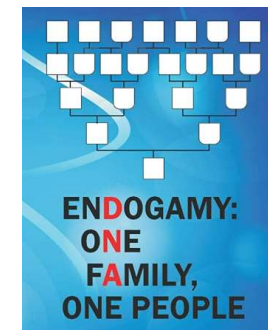


## Bottleneck:

- Occurs with a sharp reduction in the size of a population – i.e. the migration from Italy to Germany
- Bottlenecks reduce the variation in the gene pool & cause people to share the **SAME SEGMENTS OF DNA** – endogamy!

## Ashkenazi Jews have strong levels of endogamy due to:

- Traditional marriage within the religion
- Isolation of the founder group & the severe genetic bottlenecks

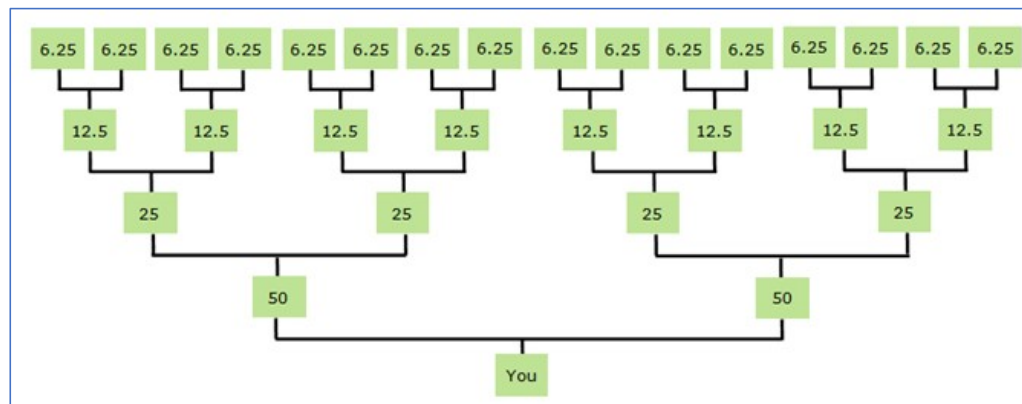


Back to our DNA tests...what do we get and what do we do with our thousands of matches?

The screenshot shows a user interface for a DNA testing service. On the left, the 'DNA Story' section features a pie chart and an 'Ethnicity Estimate' with the following data: 98% Jewish Peoples of Europe, 1% Eastern Europe & Russia, and 1 Other regions. Below this is a button labeled 'Discover Your DNA Story'. On the right, the 'DNA Matches' section displays a grid of eight profile pictures, a star icon for '2 Starred matches', and a magnifying glass icon for '1000+ 4th cousins or closer'. A button labeled 'View DNA Matches' is at the bottom right.

Ethnicity Estimate

DNA Matches



At seven generations back, less than 1% of your DNA is likely to have come from any given ancestor

## Ethnicity Results



# DNA Matches





# What information do you see for each DNA Match?

Match Name



Estimated Relationship



Do they have a tree?



## Tree choices

- No tree
- Unlinked tree
- Private linked tree
- Public linked tree \*

Robin

4th - 6th Cousin  
45 cM | < 1% shared DNA  
Maternal side

Public linked tree  
1,359 People  
Common ancestor

Do you recognize them?  
Yes Learn more

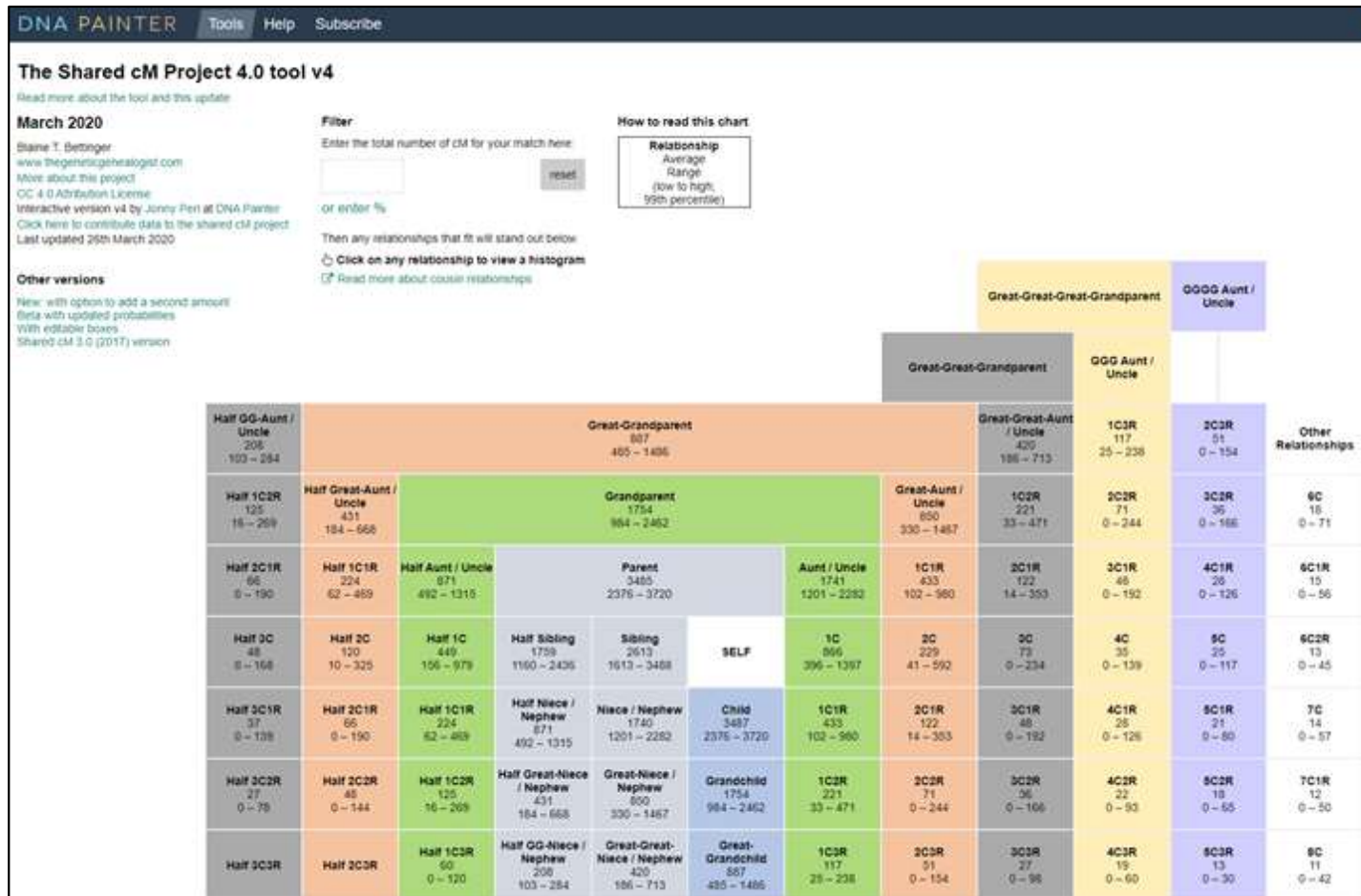
Amount of Shared DNA  
cM = centimorgans

Ancestry assigns matches as Maternal or Paternal. If they're not sure, it will say Parent 1, Parent 2, or Unassigned.

Ancestry checks your tree and your DNA match's tree and lets you know if you have a common ancestor

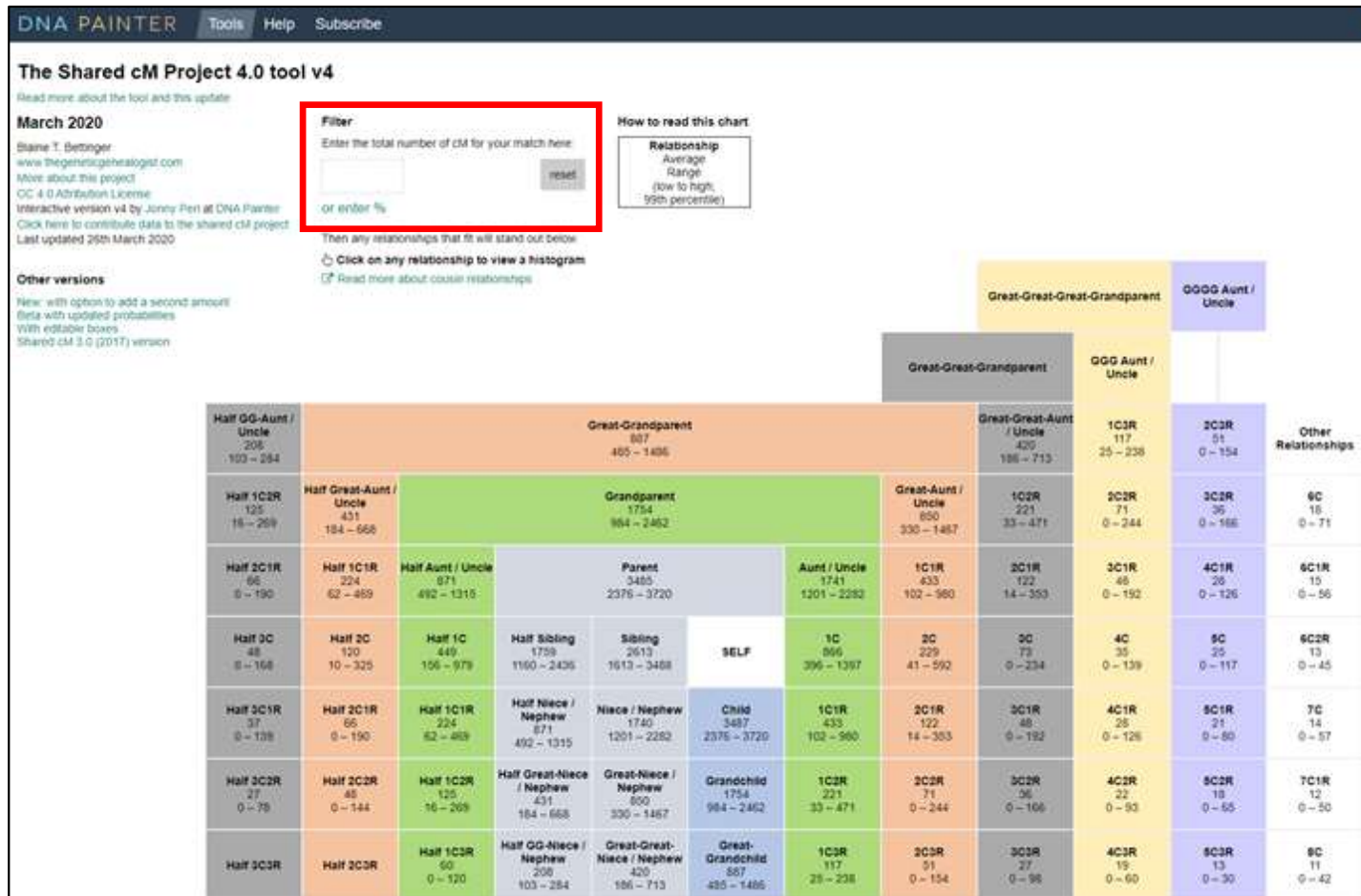
\* Connecting your DNA test to a public family tree can **help you learn how you're related to DNA matches.**

# The Shared cM Project 4.0 tool v4



Bookmark this page: <https://dnainter.com/tools/sharedcmv4>

# Where do you insert the shared cM of your DNA match?



Bookmark this page: <https://dnainter.com/tools/sharedcmv4>

These are the possible relationships if you share 250 cM

								Great-Great-Grandparent	GGG- Uncle
<b>Half GG-Aunt / Uncle</b> 208 103 – 284	<b>Great-Grandparent</b> 887 485 – 1486						<b>Great-Great-Aunt / Uncle</b> 420 186 – 713	1C3 25	
<b>Half 1C2R</b> 125 16 – 269	<b>Half Great-Aunt / Uncle</b> 431 184 – 668	<b>Grandparent</b> 1754 984 – 2462				<b>Great-Aunt / Uncle</b> 850 330 – 1467	<b>1C2R</b> 221 33 – 471	2C3 71 0 – 25	
<b>Half 2C1R</b> 66 0 – 190	<b>Half 1C1R</b> 224 62 – 469	<b>Half Aunt / Uncle</b> 871 492 – 1315	<b>Parent</b> 3485 2376 – 3720		<b>Aunt / Uncle</b> 1741 1201 – 2282	<b>1C1R</b> 433 102 – 980	<b>2C1R</b> 122 14 – 353	3C3 48 0 – 25	
<b>Half 3C</b> 48 0 – 168	<b>Half 2C</b> 120 10 – 325	<b>Half 1C</b> 449 156 – 979	<b>Half Sibling</b> 1759 1160 – 2436	<b>Sibling</b> 2613 1613 – 3488	<b>SELF</b>	<b>1C</b> 866 396 – 1397	<b>2C</b> 229 41 – 592	4C 73 0 – 25	
<b>Half 3C1R</b> 37 0 – 139	<b>Half 2C1R</b> 66 0 – 190	<b>Half 1C1R</b> 224 62 – 469	<b>Half Niece / Nephew</b> 871 492 – 1315	<b>Niece / Nephew</b> 1740 1201 – 2282	<b>Child</b> 3487 2376 – 3720	<b>1C1R</b> 433 102 – 980	<b>2C1R</b> 122 14 – 353	4C2 48 0 – 25	
<b>Half 3C2R</b> 27 0 – 78	<b>Half 2C2R</b> 48 0 – 144	<b>Half 1C2R</b> 125 16 – 269	<b>Half Great-Niece / Nephew</b> 431 184 – 668	<b>Great-Niece / Nephew</b> 850 330 – 1467	<b>Grandchild</b> 1754 984 – 2462	<b>1C2R</b> 221 33 – 471	<b>2C2R</b> 71 0 – 244	4C2R 36 22 0 – 25	
<b>Half 3C3R</b>	<b>Half 2C3R</b>	<b>Half 1C3R</b> 60 0 – 120	<b>Half GG-Niece / Nephew</b> 208 103 – 284	<b>Great-Great-Niece / Nephew</b> 420 186 – 713	<b>Great-Grandchild</b> 887 485 – 1486	<b>1C3R</b> 117 25 – 238	<b>2C3R</b> 51 0 – 154	4C3 27 0 – 98 0 – 6	

Bookmark this page: <https://dnainter.com/tools/sharedcmv4>

# Where do you find the average shared cM for a relationship

								Great-Great-Grandparent	GGG, Uncle
Half GG-Aunt / Uncle 208 103 – 284	Great-Grandparent 887 485 – 1486						Great-Great-Aunt / Uncle 420 186 – 713	1C3 25	
Half 1C2R 125 16 – 269	Half Great-Aunt / Uncle 431 184 – 668	Grandparent 1754 984 – 2462				Great-Aunt / Uncle 850 330 – 1467	1C2R 221 33 – 471	2C3 71 0 – 244	
Half 2C1R 66 0 – 190	Half 1C1R 224 62 – 469	Half Aunt / Uncle 871 492 – 1315	Parent 3485 2376 – 3720		Aunt / Uncle 1741 1201 – 2282	1C1R 433 102 – 980	2C1R 122 14 – 353	3C3 48 0 – 192	
Half 3C 48 0 – 168	Half 2C 120 10 – 325	Half 1C 449 156 – 979	Half Sibling 1759 1160 – 2436	Sibling 2613 1613 – 3488	SELF	1C 866 396 – 1397	2C 229 41 – 592	3C 79 0 – 244	
Half 3C1R 37 0 – 139	Half 2C1R 66 0 – 190	Half 1C1R 224 62 – 469	Half Niece / Nephew 871 492 – 1315	Niece / Nephew 1740 1201 – 2282	Child 3487 2376 – 3720	1C1R 433 102 – 980	2C1R 122 14 – 353	3C3 48 0 – 192	
Half 3C2R 27 0 – 78	Half 2C2R 48 0 – 144	Half 1C2R 125 16 – 269	Half Great-Niece / Nephew 431 184 – 668	Great-Niece / Nephew 850 330 – 1467	Grandchild 1754 984 – 2462	1C2R 221 33 – 471	2C2R 71 0 – 244	3C2R 36 0 – 166	
Half 3C3R	Half 2C3R	Half 1C3R 60 0 – 120	Half GG-Niece / Nephew 208 103 – 284	Great-Great-Niece / Nephew 420 186 – 713	Great-Grandchild 887 485 – 1486	1C3R 117 25 – 238	2C3R 51 0 – 154	3C3R 27 0 – 98	

Relationship  
Average cM  
Range cM

Bookmark this page: <https://dnainter.com/tools/sharedcmv4>

# A new and free tool from MyHeritage...cM Explainer

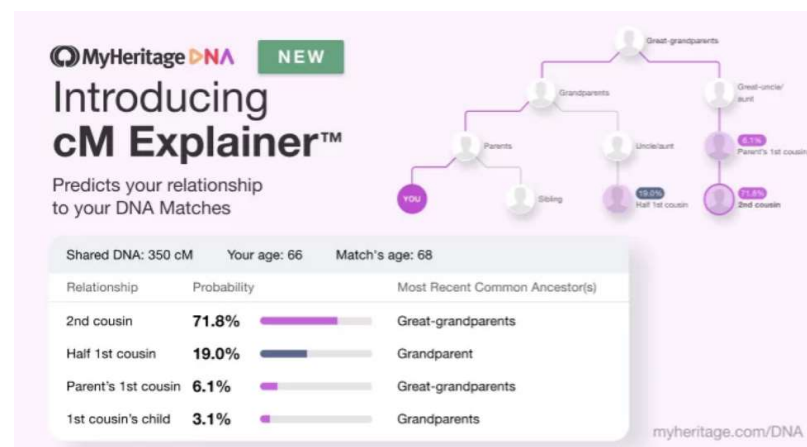
The cM Explainer estimates familial relationships between DNA Matches with high accuracy.

- Free & doesn't require a MyHeritage account
- Predicts relationships based on centimorgan and ages (when known)
- Based on ages and relationships of millions of people in MyHeritage database

**NEW**

The screenshot shows the MyHeritage website's navigation bar with links for Home, Family tree, Discoveries, Photos, and DNA (marked as NEW). Below the navigation bar is the 'cM Explainer' tool, which includes a 'NEW' badge and an information icon. The tool's instructions state: 'Enter the total amount of shared DNA with a DNA Match to view relationship predictions. For improved predictions, enter the ages as well.' There are three input fields: 'Shared DNA (cM)', 'Your age' (Optional), and 'Match's age' (Optional). A purple 'Submit' button is located to the right of the input fields.

[www.MyHeritage.com/cm](http://www.MyHeritage.com/cm)



# Ashkenazic Shared DNA Survey – August 2022 Update

- Jewish genealogist, Lara Diamond, is collecting data to reflect shared DNA from Jewish respondents.
- As of August 2022, she has collected 6455 data points.
- Jews (& partial Jews) with the same relationship (i.e., 1C, 2C, etc.) share more DNA than non-Jews = effects of endogamy



Lara's  
Jewnealogy

Example comparisons of average cM shared at different relationship levels

Relationship	Shared cM Project	Ashkenazic Shared DNA Survey
1C	866	922
2C	229	272
3C	73	113
4C	35	53
5C	25	48



Source: <https://larasgenealogy.blogspot.com/2022/08/ashkenazic-shared-dna-survey-august.html>

# Techniques for finding your best DNA matches





## Let's look for cousins that meet these criteria



Shared DNA  $\geq$  90 cM  
Longest segment  $\geq$  20 cM  
# of segments  $\leq$  11 (less is better)



Shared DNA  $\geq$  1.3% (97 cM)  
Longest segment  $\geq$  20 cM  
+ 2 more segments  $\geq$  10 cM



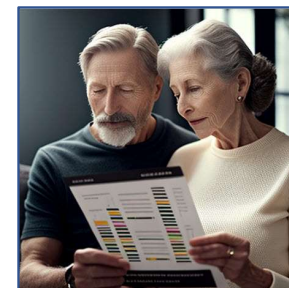
Shared DNA  $\geq$  100 cM  
Longest segment  $\geq$  30 cM  
One segment  $\geq$  15 cM  
One segment  $\geq$  10 cM



Shared DNA  $\geq$  100 cM  
Longest segment  $\geq$  30 cM  
One segment  $\geq$  15 cM  
One segment  $\geq$  10 cM

OR

Any match that shares a longest segment of 40 cM or more – regardless of Total Shared DNA



Let's prioritize  
and  
document  
your best  
DNA matches

	A	B	C	D	E	F	G	H	I	J	K
	DNA Company	DNA Match Name	Total DNA Shared (cM)	Largest segment (cM)	2nd largest segment	3rd largest segment	Number of Segments	Public Tree Size	Maternal or Paternal	X Match	Surname, ethnicity, and/or location clues
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											

Keep track of your best matches in a spreadsheet or simply on a piece of paper

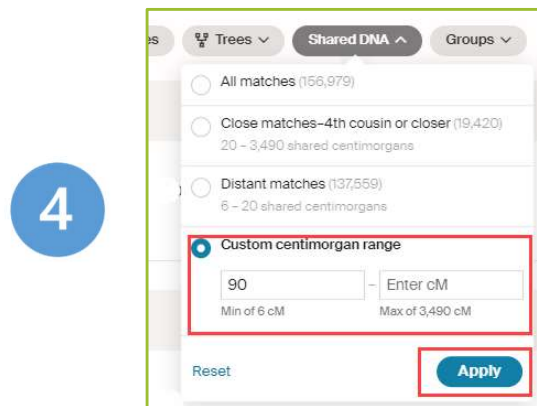
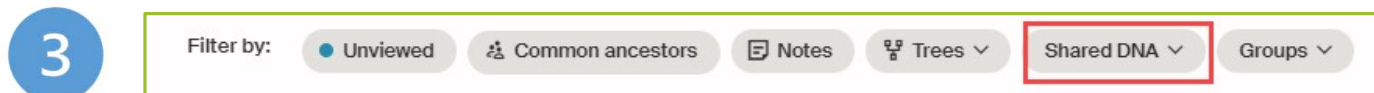
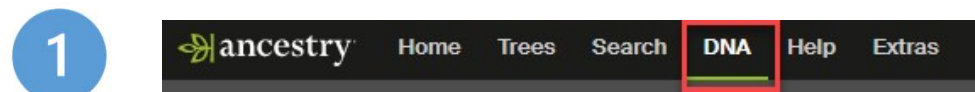


Shared DNA  $\geq$  90 cM  
Longest segment  $\geq$  20 cM  
Number of segments  $\leq$  11 (less is better)

OR

Any match with longest segment  $\geq$  40 cM,  
regardless of total Shared DNA

Select your matches that you share 90+ cM with



Note: you can set an upper limit to filter out close relatives

# Find matches with 20+ cM & ≤ 11 segments

Look at each of your matches (90+ cM)

Record each match that has a largest segment of at least 20 cM

And who share less than 12 segments

Keep track of the names



**Bonita**

2nd – 3rd Cousin  
132 cM | 2% shared DNA  
 Unassigned

5

**You and Bonita**

Shared DNA: 132 cM across 7 segments  
 Unweighted shared DNA: 132 cM  
 Longest segment: 40 cM

6

Less than 12 segments

20+ cM longest segment

7

	A	B	C	D	E	F	G	H	I	J	K
	DNA Company	DNA Match Name	Total DNA Shared (cM)	Largest segment (cM)	2nd largest segment	3rd largest segment	Number of segments	Public Tree Size	Maternal or Paternal	X Match	Surname, ethnicity, and/or location clues
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

Any match with a longest segment of 40+ cM should go on your “best matches” list

8

Filter by Shared DNA and select 40 – 89 cM AND Public linked trees.

Public linked trees 40 - 89 cM

9

Click on the middle line with cM



10

Select matches with longest segment 40+ cM

You and Lou

Shared DNA: 63 cM across 5 segments  
Unweighted shared DNA: 82 cM  
Longest segment: 40 cM

Lou **DOES** make the cut – longest segment is **40 cM**

You and Jon

Shared DNA: 61 cM across 4 segments  
Unweighted shared DNA: 87 cM  
Longest segment: 49 cM

Jon **DOES** make the cut – longest segment is **49 cM**

You and Donna

Shared DNA: 59 cM across 8 segments  
Unweighted shared DNA: 87 cM  
Longest segment: 21 cM

Donna **doesn't** make the cut – longest segment is **29 cM**

# Your prioritized list will become much more manageable

Total matches = 156,979



Matches that share 90+ cM = 47

Matches that share 90+ cM and have a longest segment  $\geq 20$  cM = 14

Matches w/90+ cM, longest segment  $\geq 20$  cM AND less than 12 segments = 11

Add matches w/longest segment of 40+ cM (6) = 17

**Finding  
Your Best  
DNA  
Matches**



 Public linked tree  
1,955 People

 Public linked tree  
111 People

 Public linked tree  
7 People

When you're recording your "best matches", don't forget to note the size of their public tree!



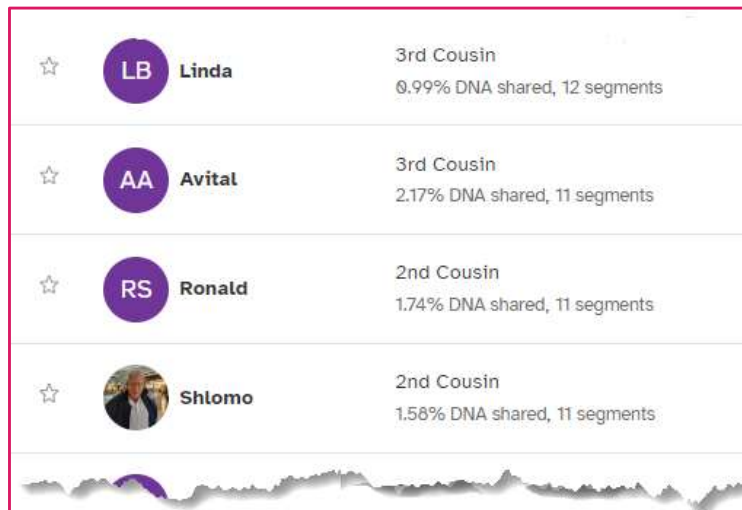
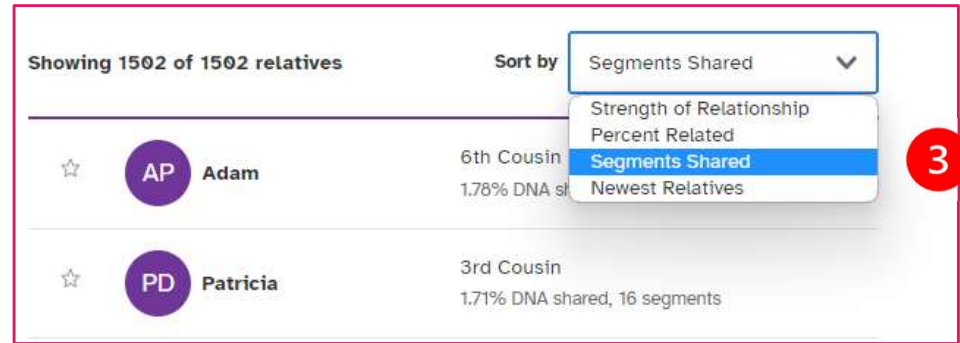
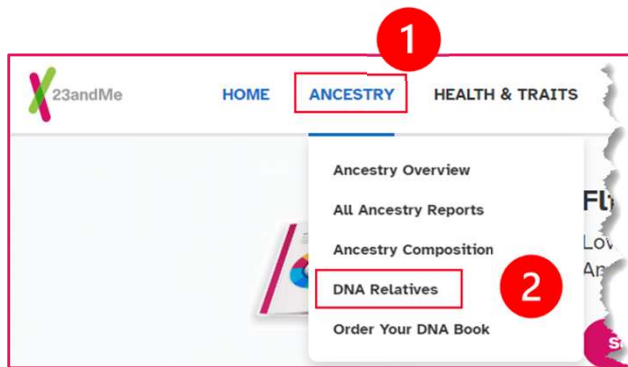
Shared DNA  $\geq 1.3\%$  (97 cM)  
Longest segment  $\geq 20$  cM  
+ 2 more segments  $\geq 10$  cM

OR

Any match with longest segment  $\geq 40$  cM,  
regardless of total Shared DNA



# Sort 23andMe matches by Segments shared....



23andMe shows your matches in segment size groups with the most shared DNA at the top of each segment size.

Then go through segment size group & “star” favorites...

For each segment size group, click on the star for matches that share 1.3% or more.

Starred matches become your “Favorites”.

4

Match	Relationship	DNA Shared
SW Sharon	2nd Cousin	1.54%
LO Lauren	3rd Cousin	1.44%
HP Hank	3rd Cousin, Twice Removed	1.40%
YB Yvonne	3rd Cousin	1.35%
FH Frieda	2nd Cousin	1.30%
KD kyLa	2nd Cousin	1.29%
Golda	2nd Cousin	1.28%

5

Filters

Keywords

Profile features and activity

- Showing ancestry results
- Favorites
- Relatives with messages

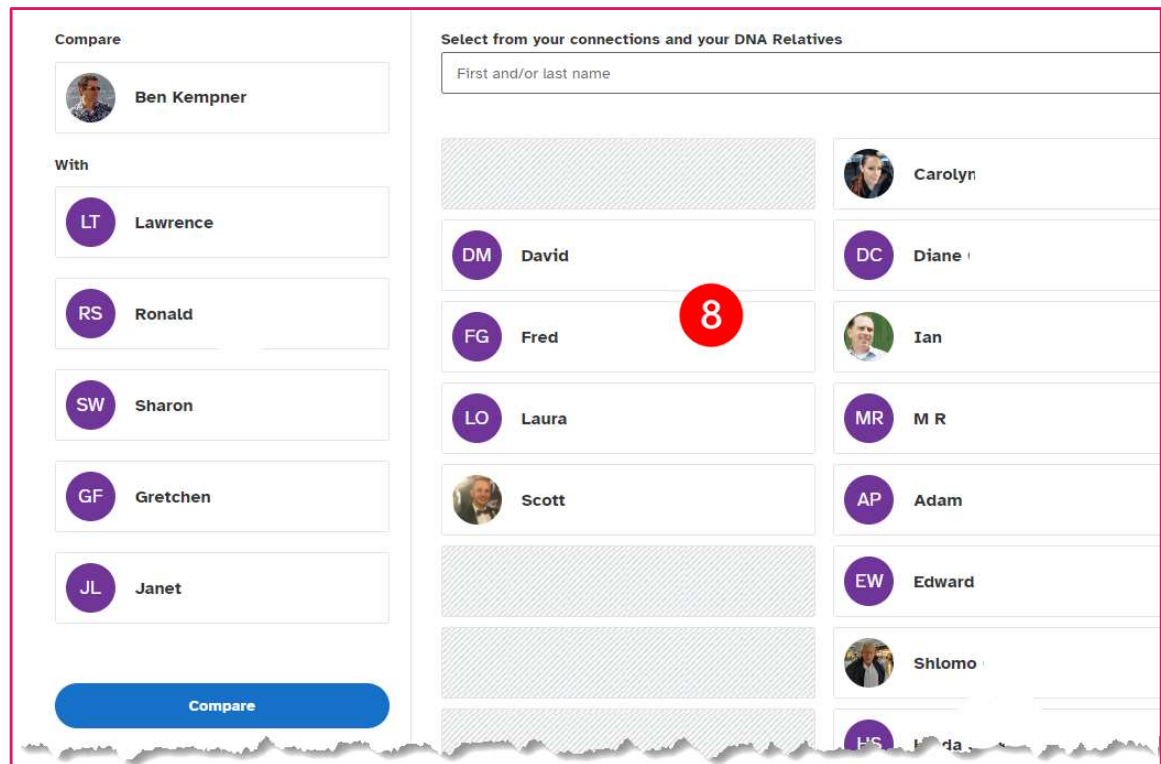
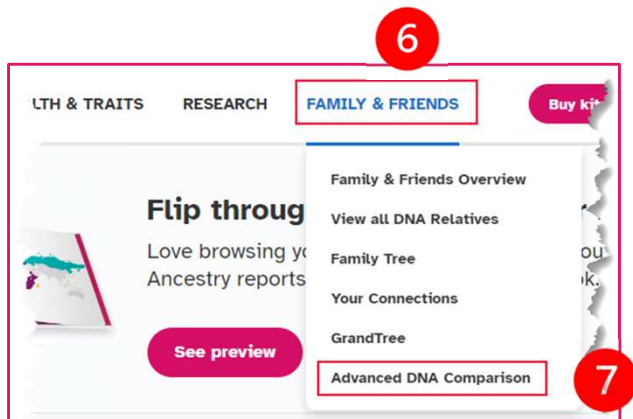
When you've created your Favorites, write the names down or take photos of those 2 or 3 screens or do “Print Screens”.



# Use the Chromosome Browser see which matches meet the criteria

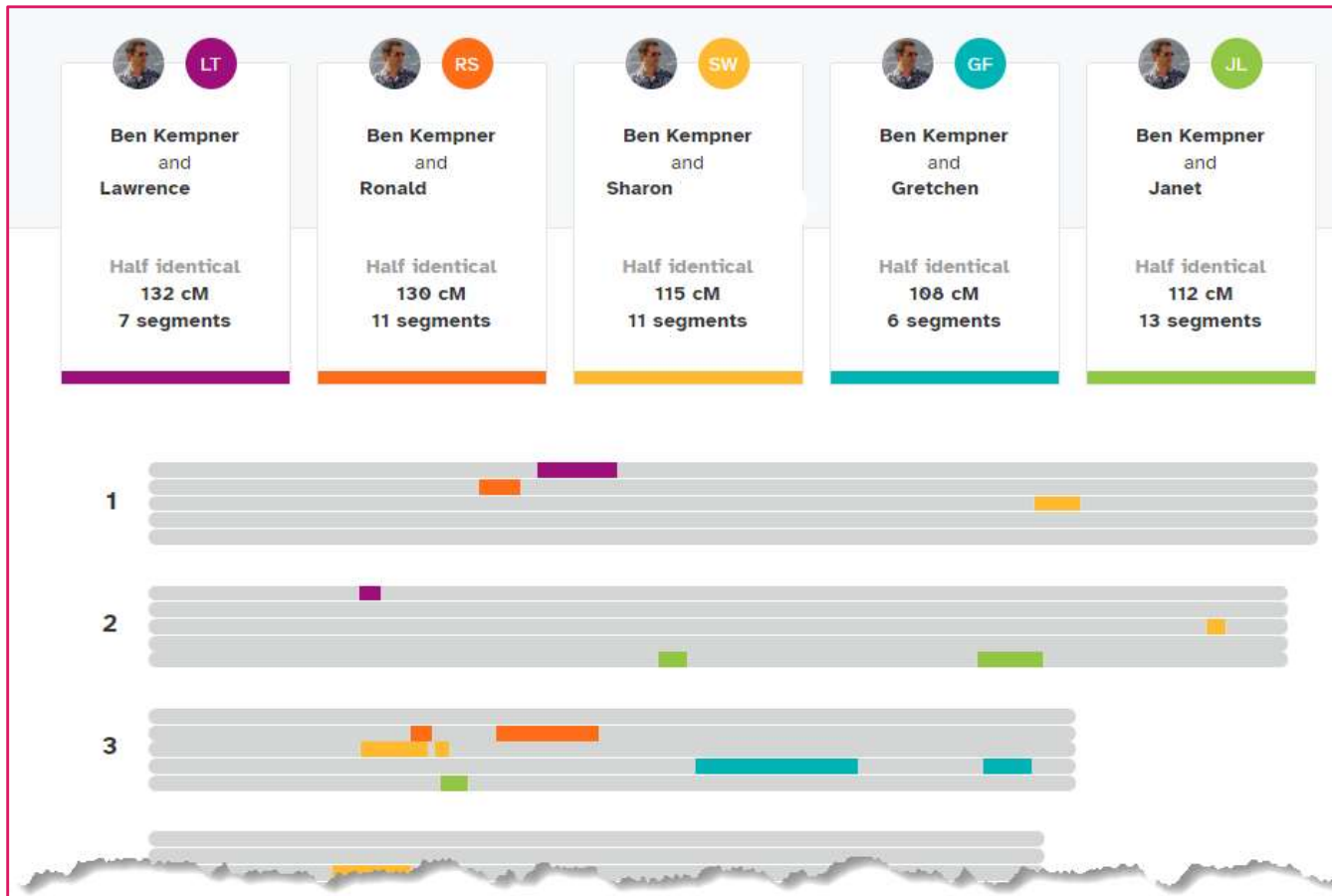


Shared DNA  $\geq 1.3\%$  (97 cM)  
Longest segment  $\geq 20$  cM  
+ 2 more segments  $\geq 10$  cM



6. Family & Friends
7. Advanced DNA Comparison
8. Select up to 5 matches from your list of matches sharing 1.3%+

Here are 5 of my matches in the Chromosome Browser



Which matches have longest segment  $\geq 20$  cM + 2 more  $\geq 10$  cM?

How can you tell how long a match's segment is?



Just hover over the segment

Detailed segment data

Comparison	Chrom.	Start Position	End Position	Genetic Distance (cM)	Number of SNPs	Identity
Ben Kempner / Lawrence	1	82874078	99906061	16.76		3 <sup>rd</sup> Longest
Ben Kempner / Lawrence	2	45072989	49716853	7.56	1371	Half
Ben Kempner / Lawrence	5	83575190	157528485	65.70		Longest
Ben Kempner / Lawrence	6	9831530	13554043	7.06	1075	Half
Ben Kempner / Lawrence	6	37664221	43475474	8.63	1364	Half
Ben Kempner / Lawrence	17	2017079	5906442	7.90	931	Half
Ben Kempner / Lawrence	17	11423255	26610769	17.73		2 <sup>nd</sup> Longest
Ben Kempner / Ronald	1	70525234	79419439	6.11	1761	Half

Then scroll down to the Detailed segment data



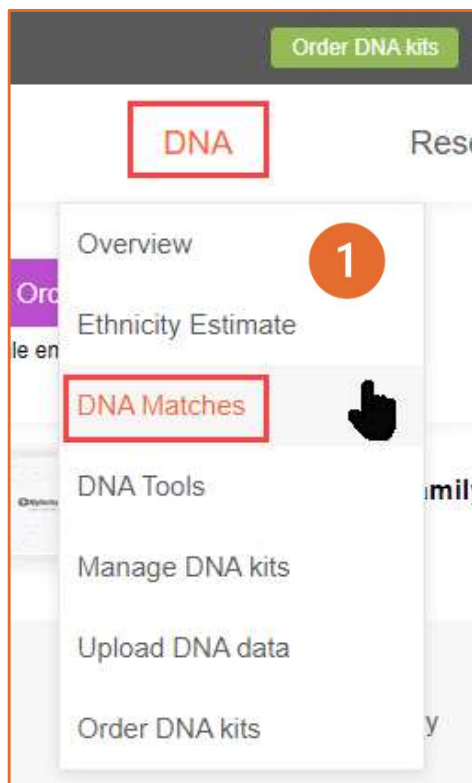


Shared DNA  $\geq$  100 cM  
Longest segment  $\geq$  30 cM  
One segment  $\geq$  15 cM  
One segment  $\geq$  10 cM

OR

Any match with longest segment  $\geq$  40 cM,  
regardless of total Shared DNA

# Finding your matches that meet the first 2 criteria is easy!






	<b>Shlomit</b> Age: 70's DNA managed by you	Estimated relationships 1st cousin once removed - 2nd cousin once removed	DNA Match quality Shared DNA: 4.0% (285.4 cM) Shared segments: 20 Largest segment: 54.5 cM	2	Review DNA Match View tree
	<b>Yacov</b> Age: 90 or above From: Israel DNA managed by Daniel	Estimated relationships 1st cousin twice removed - 2nd cousin once removed	DNA Match quality Shared DNA: 3.1% (218.8 cM) Shared segments: 11 Largest segment: 94.7 cM		Review DNA Match View tree
	<b>Noga</b> Age: 70's DNA managed by Philip	Estimated relationships 2nd cousin - 2nd cousin once removed	DNA Match quality Shared DNA: 1.9% (132.6 cM) Shared segments: 14 Largest segment: 16 cM		Review DNA Match View tree


# Finding the other segment sizes is easy too!

Shared DNA  $\geq 100$  cM  
Longest segment  $\geq 30$  cM  
One segment  $\geq 15$  cM  
One segment  $\geq 10$  cM


For each of your matches sharing  $\geq 100$  cM & with a largest segment  $\geq 30$  cM,  
Just click on Review DNA Match

 **Norman**  
From: USA   
[Contact Norman](#)

Estimated relationships  
1st cousin once removed - 2nd cousin once removed 

DNA Match quality   
Shared DNA: 1.8% (125.4 cM)  
Shared segments: 12  
Largest segment: 31.3 cM

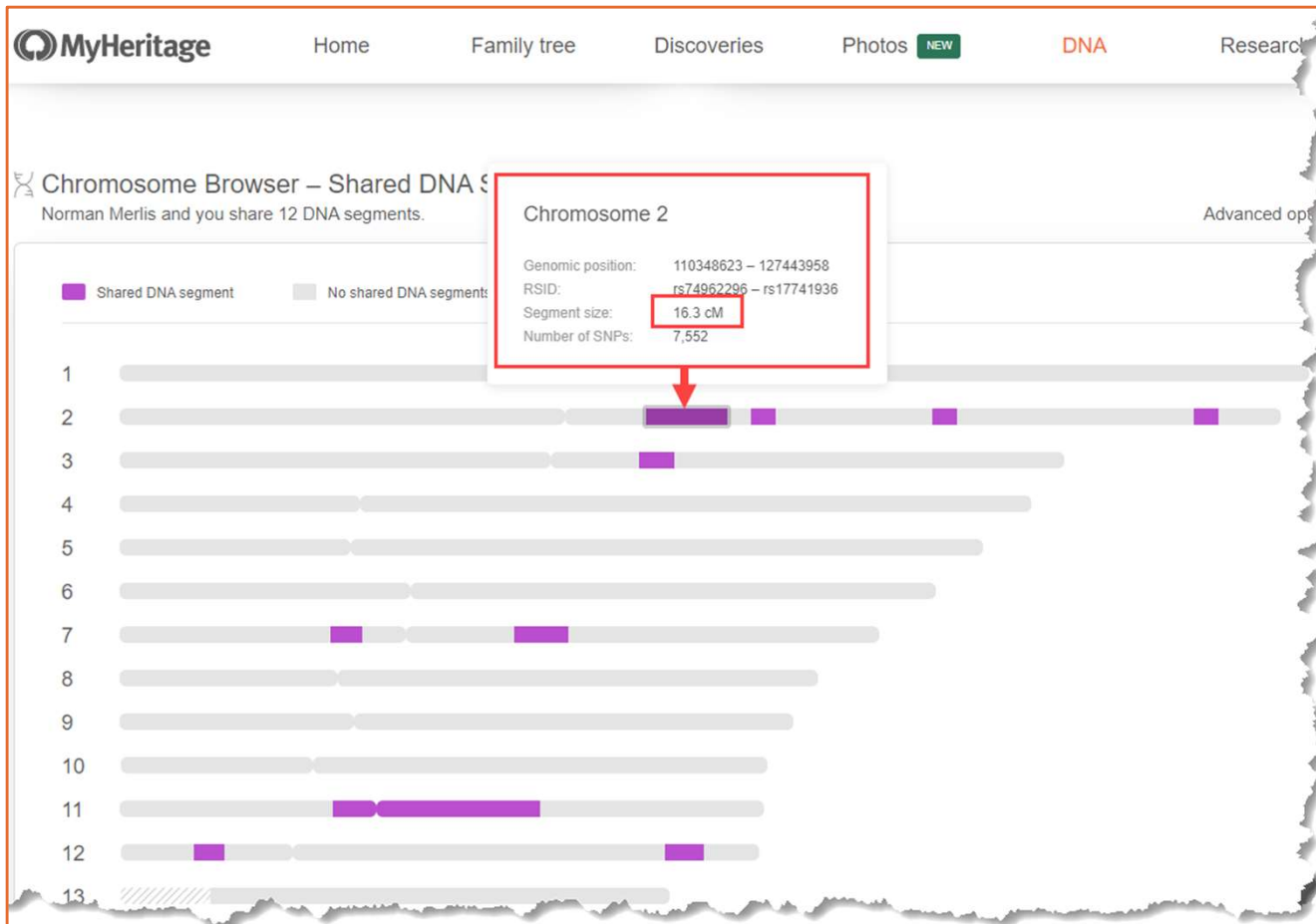
[Review DNA Match](#)

 Norman is currently not associated with a family tree on MyHeritage.  
You can contact him for more information.

3



# Scroll down to the Chromosome Browser for that person



4

Hover over the segments to see their size. Find the 2<sup>nd</sup> and 3<sup>rd</sup> largest.

5

	A	B	C	D	E	F	G	H	I	J	K
1	DNA Company	DNA Match Name	Total DNA Shared (cM)	Largest segment (cM)	2nd largest segment	3rd largest segment	Number of Segments	Public	Maternal or Paternal	X Match	Surname, ethnicity, and/or location clues
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											

If the match meets the criteria, record on your “best matches” list



Finding matches with a longest segment of 40+ cM is easy

The screenshot shows the MyHeritage website interface. At the top, there's a navigation bar with 'Home', 'Family tree', 'Discoveries', 'Photos', 'DNA NEW', and 'Research'. A promotional banner for 'Super DNA Sale — Extended!' is visible, offering kits for \$49. Below the banner, the user profile for 'Ben Kempner, this is you' is shown with tabs for 'Overview', 'Ethnicity Estimate', 'DNA Matches', and 'DNA Tools NEW'. The 'DNA Matches' tab is active, displaying 'Showing 1–10 of 21,228 DNA Matches'. A match for 'Nathan Kempner' is highlighted, showing a 'Probable relationship' of 'Son', 'DNA Match quality' of 49.9% (3,537.7 cM), 'Shared segments: 22', and 'Largest segment: 284.3 cM'. A 'Sort by' dropdown menu is open, with 'Largest segment' selected and highlighted by a red box. Other options in the menu include 'Shared DNA', 'Shared segments', 'Full name', and 'Most recent'. Red circles with numbers '1' and '2' are overlaid on the 'Sort by' menu and the 'Largest segment' option, respectively.

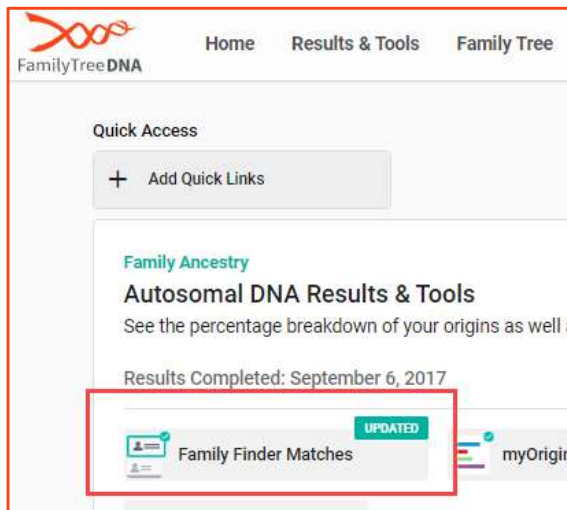


Shared DNA  $\geq$  100 cM  
Longest segment  $\geq$  30 cM  
One segment  $\geq$  15 cM  
One segment  $\geq$  10 cM

OR

Any match with longest segment  $\geq$  40 cM,  
regardless of total Shared DNA

# Go to your Family Finder Matches



FamilyTreeDNA

Home Results & Tools Family Tree

Quick Access

+ Add Quick Links

Family Ancestry

**Autosomal DNA Results & Tools**

See the percentage breakdown of your origins as well as

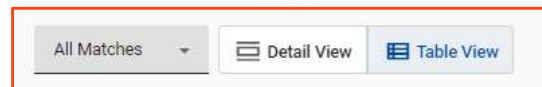
Results Completed: September 6, 2017

**Family Finder Matches** UPDATED

myOrigin

1

2

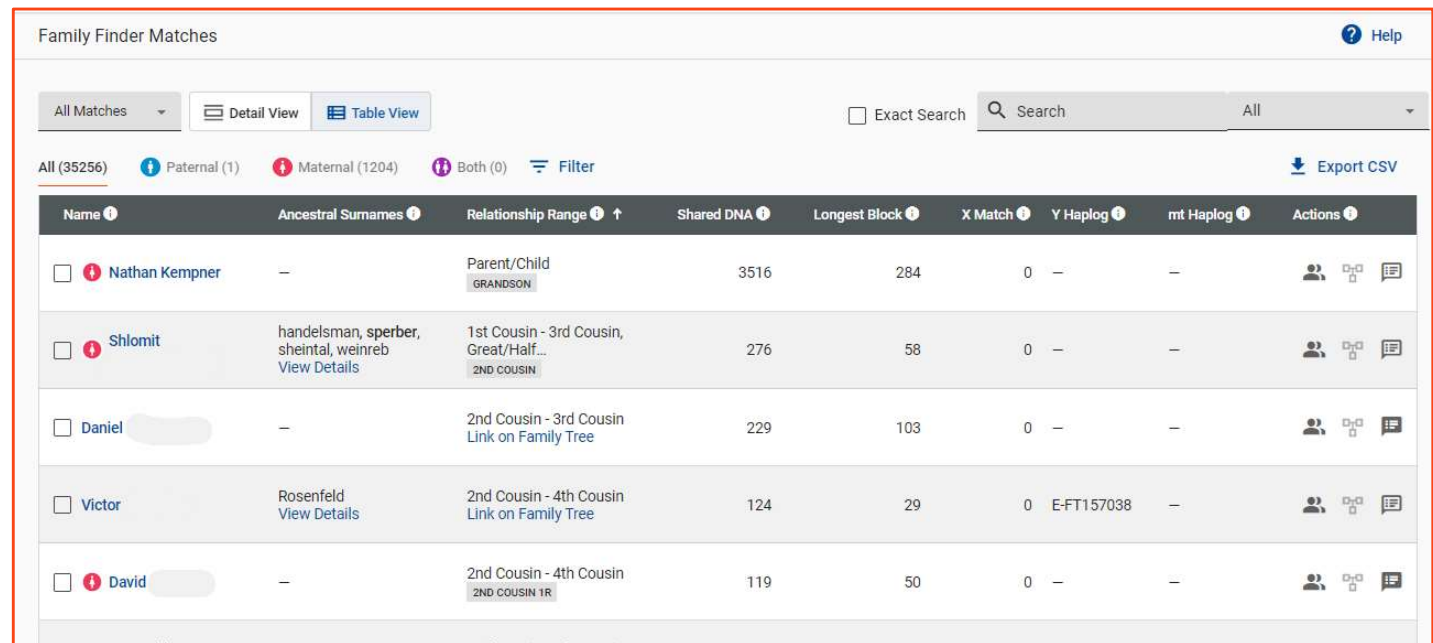


All Matches

Detail View

**Table View**

Click on Table View



Family Finder Matches Help

All Matches Detail View **Table View**  Exact Search  All

All (35256) Paternal (1) Maternal (1204) Both (0) Filter Export CSV

Name	Ancestral Surnames	Relationship Range	Shared DNA	Longest Block	X Match	Y Haplog	mt Haplog	Actions
<input type="checkbox"/> <span>Nathan Kempner</span>	—	Parent/Child GRANDSON	3516	284	0	—	—	
<input type="checkbox"/> <span>Shlomit</span>	handelsman, sperber, sheintal, weinreb <a href="#">View Details</a>	1st Cousin - 3rd Cousin, Great/Half... 2ND COUSIN	276	58	0	—	—	
<input type="checkbox"/> <span>Daniel</span>	—	2nd Cousin - 3rd Cousin <a href="#">Link on Family Tree</a>	229	103	0	—	—	
<input type="checkbox"/> <span>Victor</span>	Rosenfeld <a href="#">View Details</a>	2nd Cousin - 4th Cousin <a href="#">Link on Family Tree</a>	124	29	0	E-FT157038	—	
<input type="checkbox"/> <span>David</span>	—	2nd Cousin - 4th Cousin 2ND COUSIN 1R	119	50	0	—	—	

Check the boxes next to your matches that share 100+ cM



All Matches | Detail View | Table View | Exact Search | Search | All | Export CSV

All (35256) | Paternal (1) | Maternal (1204) | Both (0) | Filter

Name	Ancestral Surnames	Relationship Range	Shared DNA	Longest Block	X Match	Y Haplog	mt Haplog	Actions
<input checked="" type="checkbox"/> Nathan Kempner	—	Parent/Child GRANDSON	3516	284	0	—	—	[Profile] [Compare] [Message]
<input checked="" type="checkbox"/> Shlomit	handelsman, sperber, sheintal, weinreb View Details	1st Cousin - 3rd Cousin, Great/Half... 2ND COUSIN	276	58	0	—	—	[Profile] [Compare] [Message]
<input checked="" type="checkbox"/> Daniel	—	2nd Cousin - 3rd Cousin Link on Family Tree	229	103	0	—	—	[Profile] [Compare] [Message]
<input checked="" type="checkbox"/> Victor	Rosenfeld View Details	2nd Cousin - 4th Cousin Link on Family Tree	124	29	0	E-FT157038	—	[Profile] [Compare] [Message]
<input checked="" type="checkbox"/> David	—	2nd Cousin - 4th Cousin 2ND COUSIN 1R	119	50	0	—	—	[Profile] [Compare] [Message]
<input checked="" type="checkbox"/> James David	—	2nd Cousin - 4th Cousin Link on Family Tree	113	38	0	—	—	[Profile] [Compare] [Message]
<input checked="" type="checkbox"/> Jules	—	2nd Cousin - 4th Cousin Link on Family Tree	110	27	0	—	—	[Profile] [Compare] [Message]
<input type="checkbox"/> susan lumiere	—	2nd Cousin - 4th Cousin Link on Family Tree	103	18	0	—	—	[Profile] [Compare] [Message]

Compare matches in Chromosome Browser

Nathan Kempn... Shlomit Daniel Victor David James David Jules

Selected 7/7

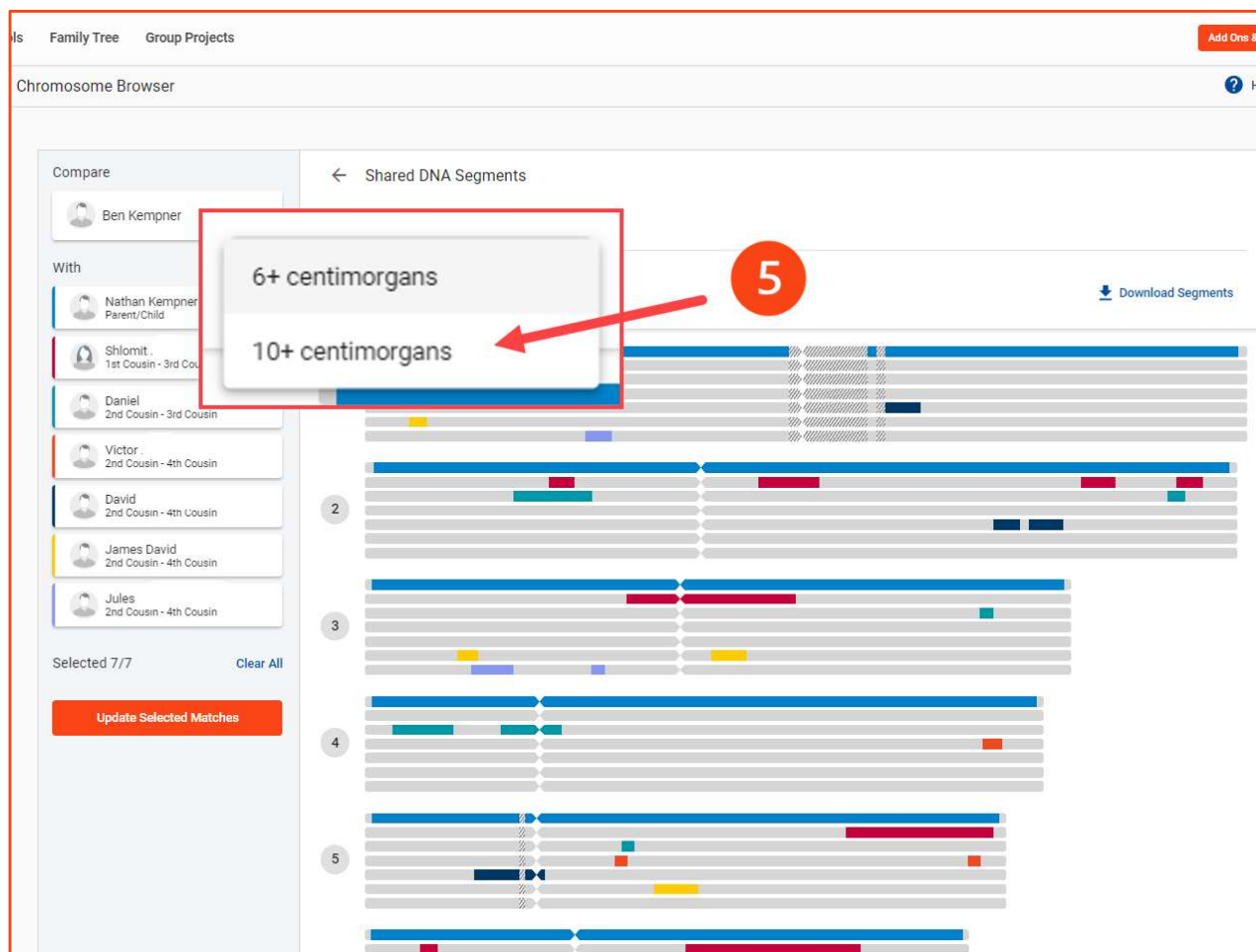
Clear all

3

You can check up to 7 people at once. Then click “Compare Relationship”

4

# Filter out segments less than 10 cM



The screenshot shows the 'Chromosome Browser' interface for 'Shared DNA Segments'. On the left, a 'Compare' sidebar lists several individuals: Ben Kempner, Nathan Kempner (Parent/Child), Shlomit (1st Cousin - 3rd Cousin), Daniel (2nd Cousin - 3rd Cousin), Victor (2nd Cousin - 4th Cousin), David (2nd Cousin - 4th Cousin), James David (2nd Cousin - 4th Cousin), and Jules (2nd Cousin - 4th Cousin). A red box highlights a filter menu with two options: '6+ centimorgans' and '10+ centimorgans'. A red arrow points from a red circle containing the number '5' to the '10+ centimorgans' option. The main area displays a grid of DNA segments across chromosomes 2, 3, 4, and 5, with various colored bars representing matches between the individuals.

# Then view the Detailed Segment Data

Shared DNA  $\geq 100$  cM  
 Longest segment  $\geq 30$  cM  
 One segment  $\geq 15$  cM  
 One segment  $\geq 10$  cM

Shared DNA Segments

Chromosome View **Detailed Segment Data** 6

10+ centimorgans




1

Shared DNA Segments

Chromosome View **Detailed Segment Data**

Match Name	Chromosome	Start Location	End Location	Centimorgans(cM)	Matching SNPs	
Daniel	2	42,985,395	3 <sup>rd</sup> Longest	22.51	7,559	
Daniel	2	224,999,824	229,908,613	6.21	1,473	
Daniel	3	174,117,111	177,604,731	6.62	1,043	
Daniel	4	7,700,712	2 <sup>nd</sup> Longest	23.02	5,599	
Daniel	4	38,984,852	56,904,059	12.43	3,592	
Daniel	5	73,076,457	77,243,183	7.96	1,517	
Daniel	8	126,439,329	130,358,311	7.31	1,456	
Daniel	9	10,753,557	116,5	Longest	102.74	25,749
Daniel	9	46,587	2,630,785	8.07	1,606	
Daniel	11	198,510	5,430,603	11.14	2,120	
Daniel	11	32,192,156	36,421,759	7.36	1,709	
Daniel	19	8,326,866	12,530,177	6.51	1,162	
Daniel	21	38,006,139	41,515,029	7.14	1,422	

# Finding matches with a longest segment of 40+ cM is easy w/FTDNA




Name	Ancestral Surnames	Relationship Range	Shared DNA	Longest Block	X Match	Y Haplog	mt Haplog	Actions
<input type="checkbox"/> Nathan Kempner	—	Parent/Child GRANDSON			0	—	—	  

Centimorgan value of the longest segment of shared DNA between you and the match. A higher value indicates a closer genealogical relationship.

1

Longest Block
7
7

Click on Longest Block and the list will be sorted in ascending order with the shortest blocks at the top.

Name	Ancestral Surnames	Relationship Range	Shared DNA	Longest Block	X Match	Y Haplog	mt Haplog	Actions
<input type="checkbox"/> Nathan Kempner	—	Parent/Child GRANDSON			0	—	—	  

Centimorgan value of the longest segment of shared DNA between you and the match. A higher value indicates a closer genealogical relationship.

2

Longest Block	X Match
284	
103	
58	
50	

Just click on Longest Block again and the list will be sorted in descending order with the longest at the top.



Finish adding your matches that meet the criteria to your list

Shared DNA  $\geq$  100 cM  
 Longest segment  $\geq$  30 cM  
 One segment  $\geq$  15 cM  
 One segment  $\geq$  10 cM

	A	B	C	D	E	F	G	H	I	J	K
	DNA Company	DNA Match Name	Total DNA Shared (cM)	Largest segment (cM)	2nd largest segment	3rd largest segment	Number of Segments	Public Tree Size	Maternal or Paternal	X Match	Surname, ethnicity, and/or location clues
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											

## Next steps!

- Congratulate yourself on a job well-done!
- Look for additional clues for the people on your “best matches” list.
  - Surnames
  - Locations
  - Shared matches
  - Family trees – be sure to check to see if they’ve provided sources for their people – BMD records, etc.
- Now you’re ready to contact your matches to learn more about your family history!



Reaching out to DNA matches



Tips and  
Advice

# Tips for contacting your DNA matches

- Start with their name – it's more personal. As some people administer more than one DNA account, make sure they know you're talking about.
- Keep it short.
- Ask a simple question – keep locations & names general (i.e. counties, states, surnames, not streets and full names).
- Start with Qs about deceased relatives, not living – until they're more comfortable.
- Don't mention centimorgans – it can be intimidating.
- Give them an easy action item.
- Always be respectful of their privacy.



# Sample letter



The screenshot shows the Ancestry.com messaging interface. The top navigation bar includes 'ancestry', 'Home', 'Trees', 'Search', 'DNA', 'Help', and 'Extras'. On the right side of the navigation bar, there are links for 'Hire an Expert', a notification bell with '39', and a user profile icon labeled 'Ben'. The main content area is titled 'Messages' and features a '+ New' button and a search bar labeled 'Search Contacts'. Below the search bar, there is a 'New Message' button with a close icon. A message is displayed with the following content:

To: Type the name or username

Dear [name or username]

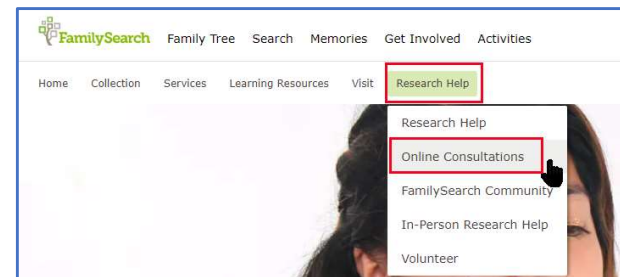
It is good to meet you here at [name of testing company]. I am amazed at the things I have been able to find out with my DNA. I'm trying to learn more about my [grandfather, great grandmother, etc.]. I think you can help, since we share some DNA. Whatever you might be willing to share about your family tree could help me build mine. If you have a family tree, would you be willing to share it with me? Or could you tell me the name of your [grandparents, etc.] and where they were from? Even if you don't have time for this right now, or it makes you uncomfortable to share information, could you please just reply and let me know you received my note?

Best,  
Your Name

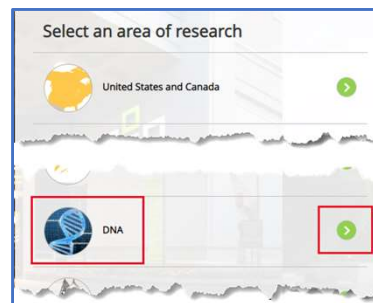
# Did you know that you can get a free consultation with someone at the SLC Family History Library w/o leaving home?

Go to [familysearch.org/library](https://familysearch.org/library) and sign into your account.

Click on Research Help and then “Online Consultations”.



Click on “Schedule Now”.



Select your area of research.

Available times will appear. Schedule your consultation!

