

# DNA testing

It's fun and interesting. You send off a sample, usually of saliva, and get back information on where your ancestors came from. By comparing results with family members and others you might also confirm connections or discover new linkages you weren't aware of. Some services also offer tests that are said to indicate how likely you are to develop certain health conditions.

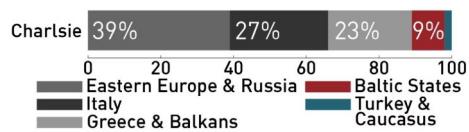
But there are downsides, mainly around accuracy and privacy.

## How accurate are the tests?

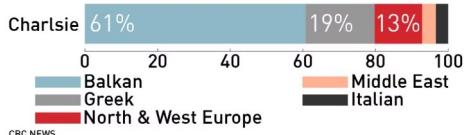
It's nice to know that you are, say, 68% Scottish, 6% German and x% whatever, but a result like this from one company may not be as accurate as you think. This shouldn't be a surprise, because each company compares your DNA with its own database and uses its own algorithms for doing so. You might think of the result as a relative score rather than an absolute one.

It's easy to show these inconsistencies by sending one person's samples to different companies. The chart shows how two testing companies gave different results for the same person.

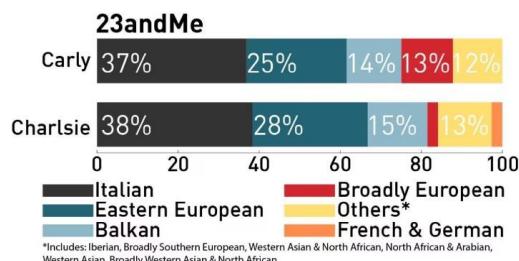
### AncestryDNA



### MyHeritageDNA



There can also be differences between tests by the same company. A nice trial to test this is to send samples from identical twins to the same company. Because they have the same genetic makeup you should get the same results, but that doesn't necessarily happen as the chart shows for identical twins Carly and Charlsie.



## What happens to the data?

Accuracy is one question. Privacy is another. Who is holding your information, and what is it being used for other than giving you some ancestry information?

Your genetic information may be used for genetic testing and drug development. For some companies that's the real business model, and the family history angle is primarily a way of getting large numbers of samples.

Your information may be seized by law enforcement agencies. It might be shared with insurance companies and affect your premiums and coverage. It will certainly be stored in a jurisdiction or jurisdictions with different privacy laws from New Zealand's (or perhaps none at all).

One high-profile US DNA testing firm, 23andMe, is in trouble. It seems to have run out of customers wanting to take the test, but hasn't yet developed ongoing revenue streams. Last year a massive data breach affected half its customers. All independent directors on the board resigned together in September. There is concern that its data — derived from the DNA of millions of customers but now belonging to the company — might be sold on to other companies in other countries.

A New Zealand privacy lawyer discusses the danger of handing over your DNA to family history websites in this New Zealand Herald [podcast](#). The Privacy Foundation in New Zealand (an NGO) has published an [article](#) with the catchy title of 'Think before you spit'.

Have you taken a DNA test? How did it help with your family history quest? Do you think the benefits outweigh the risks? Let us know in our [family history forum](#) or [Facebook group](#).

