

Direct-to-consumer DNA testing

A Short summary paragraph written by Professor Daniel Brison to accompany DC Network article - *Genetic testing websites and implications for DC families*

In the past children conceived using donated sperm, eggs or embryos were unlikely to find out that they were not genetically related to both of their parents, unless they had been specifically told by the parents. However, science has now moved on to the point where it is becoming fairly common to have individual genetic testing done, it's not expensive and it just involves sending samples of hair or saliva off in the post. In the coming few years it will probably become routine for most people to do this, out of interest in their ancestry, or because of concerns about their risk of certain diseases, or because medical treatments may become individualised based on a person's genetics.

Companies that do this testing put the individual's information on large databases which everyone has access to, so that people can search for long lost cousins or relatives etc. As the article from Donor Conception Network shows, people who know that they have been conceived with donor sperm are already using this information to trace their siblings (half siblings) from the same donor. This is possible because in the UK up to 10 children (or families) can be born from one sperm donor. This is less likely for children born from egg or embryo donation, where the numbers of half siblings would be much lower, but still possible. This also means that if children have testing done when they are older and register on this database they will easily find out if they have a number of half siblings, usually from the same father. If they know that they were conceived from donor sperm then this will be no surprise, but if they are not aware then it might come as quite a shock.

What does this mean for couples undergoing treatment using donated sperm, eggs or embryos? Realistically there is a very high chance that any children arising from donation will learn about this via genetic testing at some point in the future. If they have not been told this information by their parents in a supportive environment, the impact of receiving this information on long term mental health and family relationships is unknown.

To quote from a paper in 2016 by the geneticist Joyce Harper and colleagues:

“Everyone involved should be aware that adults who have not been informed of their status may find out that they are donor-conceived. Parents using donor conception need to understand that their children's DNA will identify that they are not the biological parents and they should be encouraged to disclose the use of donor gametes to their children.”

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