

Sperm and Egg Donation and Online DNA Testing

- Information for Parents

These information leaflets are designed to help answer questions that parents of donor conceived people and people intending to use sperm or egg donation to have a child may have about online DNA testing. They are based on research from the ConnecteDNA project.

The ConnecteDNA project investigated how online DNA testing was used by donor conceived people, donors, parents by donor conception and their families. It was funded by the UKRI ESRC - see the project [website](#).

Please note that the information here is primarily intended for people accessing donor conception through a UK licensed clinic. Some of these issues are also relevant for those who access donation outside of the clinic, informally.



General questions about online DNA testing

I have seen the terms ‘online DNA testing’ and ‘direct to consumer’/‘online’ genetic testing used. Are these the same thing?

Yes, these are the same thing. We will use the term ‘online DNA testing’ in this leaflet.

What is online DNA testing?

Online DNA testing, sometimes called ‘direct-to-consumer genetic testing’, is an online service available direct to the general public for a fee. People use these services to search for their ancestors, to search for genetic relations, or because they are interested in exploring their heritage or are seeking medical information about themselves.

The company providing the service analyses your DNA using a saliva sample. The information you receive depends on the company, as each offers different services. These may include reports on personality traits, health risks or genetic predispositions to certain conditions, wellness insights, ancestral origins, and matches with genetic relatives—people who share some of your DNA.

What online DNA testing options are available, and how do services differ?

Online DNA testing services: These are run on a commercial basis by private companies (such as Ancestry, 23andMe and MyHeritage DNA). Each company’s service will have its own features, terms and conditions and privacy policies. These terms & conditions, and privacy policies, will differ depending on the provider and you should read these carefully before deciding which (if any) you are most comfortable using. At the end of this leaflet you can find links to resources that give information on what to consider when thinking about using an online DNA testing service.

¹We have included 23andMe in this list as we acknowledge that this is a provider that many people will have used and will recognise. However, we note that at the time of writing, July 2025, this company had filed for bankruptcy and there is a lack of clarity about who will buy the company and how users’ data will be handled by the new owners.

You will need to set up an account with each provider with a username and password and the results are then delivered via your online account.

Some people who are looking to identify genetic relatives using online DNA testing do tests using more than one provider, as they feel they are more likely to find genetic relatives. Some genetic genealogists have supported this approach. AncestryDNA has a DNA database of over 27 million people. 23andMe has a database of about 15 million people. You have to do a test directly with each company, but you can upload existing data to FamilyTreeDNA and Living DNA to maximise your chances of finding relatives. Online DNA testing is more popular in the UK, Ireland, the US, Canada, Australia, and New Zealand than in many other parts of the world. If your ancestry is from countries that are less represented in these databases, such as Spain, or from certain ethnic backgrounds, you are currently less likely to find strong DNA matches.

More information is available from the International Society of Genetic Genealogy (see resources below).

As well as online testing, for historic donors in the UK, there is the Donor Conceived Register which is for donors and donor conceived people conceived or donating before 1st August 1991. This is not a commercial service. When you sign up to the Donor Conceived Register, operated by Liverpool Women's Hospital, you provide a DNA sample which is tested at the DNA Analysis Lab at Kings College London. The tests used for this service are different from the tests used by the commercial DNA companies. They test a very limited number of markers and can sometimes produce false positive or false negative results. The main objective of this service is to match donor conceived people born from pre-1991 donations to the donor and to their donor siblings. This DNA database is not a publicly available commercial service and not linked to any others – meaning people will only find a match if the donor, donor conceived person or a donor sibling also submits their DNA to the Register.

²This information comes from academic research carried out by Jianye Ge and Bruce Budowle (2020): How many familial relationship testing results could be wrong? PLoS Genet 16(8): e1008929. <https://doi.org/10.1371/journal.pgen.1008929>

³While we use the term 'the donor' in this leaflet, we note that the terminology around donor conception and the different parties involved is contested. We recognise that this will not reflect the language choices of all donor conceived people or others impacted by donor conception.

What are the data privacy implications of online DNA testing services?

When using an online DNA testing service, it is important to remember that you are providing personal data to a commercial entity and to understand the potential privacy risks associated with use of these services. Before deciding to use one of these tests, it is recommended that you read the company's Privacy Policy and think carefully about what you feel comfortable with. For example, you may wish to consider whether the company will share your data with third parties and what happens to your data if the company is sold to a new owner. We have included some resources at the end of this leaflet which may guide you regarding the key privacy issues to consider.



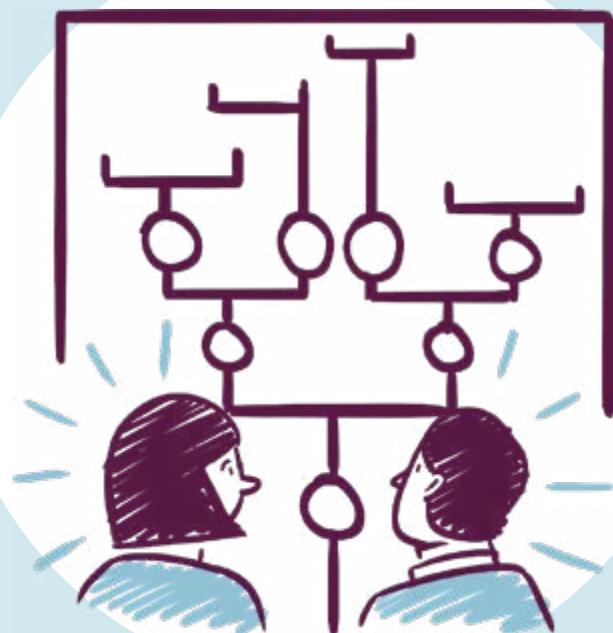
If I use an online DNA testing site, do I have a right to delete my data at a later date?

Under data protection regulations you have the right to delete data that you have uploaded to a website/app. However, that might, in practice, be difficult to achieve. You will need to double check the provider's terms and conditions and/or their Privacy Policy to find out how to request deletion.

It is important to remember that people who have 'matched' with you may have taken a screenshot or otherwise recorded the information about the match. Therefore, there are limitations to deleting the DNA once it has been uploaded and the 'matching' function of the DNA site enabled. Most DNA testing providers offer an option to turn off the 'relative matching' feature. It is also possible that the DNA testing provider has shared your data with a third party/parties. You will be able to find out about this in their Privacy Policy.

How can I start a search?

Your choice of DNA test will depend on the questions you are hoping to answer. For further information and an in depth analysis of the available options, see 'The Best Tried and Tested DNA Tests 2024', by Debbie Kennett. Further information is also available from the International Society of Genetic Genealogy. The links to these resources can be found at the end of this leaflet.



What information can I expect to receive?

At the time of writing, all the companies will provide you with a report on your ancestral origins. They compare your DNA to reference populations and assign percentages of your DNA to different world regions (e.g., 15% Ireland) and populations (e.g., 45% Ashkenazi Jewish). Some of the companies will assign you to genetic groups (also known as genetic communities or ancestral journeys). These genetic groups are based on networks of people sharing large chunks of DNA and provide information about your more recent ancestry within the last 200 to 300 years. Some of the groups are very granular and will assign you to counties or sometimes even towns.

Each company has their own reference populations and proprietary algorithms so the results will vary from company to company. The results are also updated on a regular basis and so may change over time.

The companies will also provide you with a list of your relatives and a prediction of your likely genetic relationship, such as an uncle or half-sibling. The relationship predictions are based on the amount of DNA shared and the number of shared DNA segments. The more DNA shared the closer the relationship. The results are ranked starting with the closest relatives, and the list of DNA matches will often include several thousand names. Some matches provide information about themselves in their profile and sometimes even a photo. Most of the sites allow the user to attach a family tree to their DNA results which can help you to work out your relationships. Most companies have an in-house messaging platform that will allow you to contact your matches. Some companies allow people to provide e-mail addresses.

In some cases, you can be matched at the outset with a parent, a child or a full sibling. These close relationships can be predicted with high confidence. With other relationships there is a range of possibilities. For example, if two people share 25% of their DNA this could represent a half sibling relationship, a grandparent/grandchild relationship or an aunt or uncle/niece or nephew relationship.

With some companies you need a subscription to access additional features. For example, at AncestryDNA a subscription is required to access the full family trees of your matches and to access the genealogical records to assist with your search. There is an additional ProTools subscription which provides further functionality such as the ability to see how your matches are related to each other – more information on which can be found on Ancestry’s website.⁴

Some of the companies will provide trait reports which predict physical features (hair colour and texture, eye colour, etc), response to nutrients, personality traits, etc.

23andMe offers health reports. There are a range of reports providing information on carrier status for conditions such as cystic fibrosis and reports indicating your propensity to develop particular diseases such as Alzheimer’s or breast cancer. These reports are predictive not diagnostic and should not be seen as a substitute for medical advice.

How can I make sense of the information that I get back?

The companies have support pages which provide information to help you understand your results. Some of the companies provide educational webinars and videos. There are also various online support networks in the form of Facebook groups and mailing lists where you can ask for help (see list of resources at the end of this leaflet).



⁴<https://support.ancestry.co.uk/s/article/AncestryDNA-and-Memberships>

Why can online DNA testing be important to people?

- **For donor conceived people:**

Online DNA testing provides donor conceived people with the opportunity to connect with their donor relatives and to identify the donor. This is one of the main reasons why donor conceived people want to do an online DNA test. The donor does not need to be in the database to be identified but can be identified by building out the family trees of other DNA matches and working out how they are related to each other. This process does, however, require some genealogical research skills and sometimes also access to subscription websites. Even if the donor conceived person is not interested in connecting with genetic relatives, the information about health or ancestral origins may still be informative. It is up to each individual if they want to undertake an online DNA test. Donor conceived people may find it helpful to discuss the implications of testing with their family and close friends before they make their final decision.

- **For parents or potential parents of donor conceived people:**

Some parents are interested in testing their child to identify the donor and/or to see if the child has any donor-relatives (often with a particular emphasis on half-siblings) in the databases with whom they can connect. It is important to understand that the existence of online DNA testing services means that, even if the parent does not tell their child that they are donor-conceived, they may find out in future if they choose to take an online DNA test.

- **For donors:**

Some donors choose to test so that they can be found by the people conceived from their donation. While it is up to the donor to decide whether or not to take an online DNA test, it is important to remember that the children born as a result of their donation may be able to identify the donor, even if the donor themselves has not done a DNA test. This is because the donor's relatives might have done a test, and the donor can be traced through their network of genetic relatives and genealogical research.

Is there anyone who can help me begin and manage a search for the donor and donor relatives?

Some people use third parties to help them with their search – though it is important to note that these services are not regulated. You may hear about people using a ‘genetic genealogist’ – this is someone who uses DNA evidence in combination with genealogical research in order to identify the donor. There are both professional and volunteer genetic genealogy services available. You may also see those who offer voluntary services referring to themselves as ‘search angels’ or ‘DNA detectives’. Links to some useful Facebook groups can be found at the end of this leaflet.

I am thinking of using the services of a professional genetic genealogist to help me with my search for donor relatives. What should I know before I do?

There are three organisations which advertise the services of professional UK-based genealogists:

- Association of Professional Genealogists (APG)
- Association of Genealogical Researchers in Archives (AGRA)
- Register of Qualified Genealogists (RGQ)

These organisations all have their own codes of practice and provide a directory of their members. AGRA assesses the genealogical research skills of its members. RGQ membership is based on genealogical qualifications. However, none of these organisations guarantee the genetic genealogy expertise of its members and therefore membership of these organisations does not ensure that the person will have the relevant skills to help with your search. There are also some members who advertise their expertise in DNA testing but may not have adequate knowledge or experience to provide good advice or a cost-effective service. You may want to seek advice from friends for word-of-mouth recommendations.

Specific questions parents or potential parents of donor conceived people may have about online DNA testing

Is there a minimum age at which I can test my child or they can test themselves?

Different online DNA testing sites have different age-restrictions. This information can be found in the terms and conditions of individual websites. Some sites require users to be 18 or over before setting up an account and using their service, while others (such as Ancestry DNA) explicitly acknowledge that the parent or legal guardian may use the service on the behalf of their minor child, so long as they have discussed it with the child and their child has agreed. In reality, site-specific age restrictions appear to be relatively easy to circumvent. From the stories we heard in our research, we know that some parents are testing their children while they are very young. We are not aware of any children under the age of 18 submitting their own DNA without their parent's consent, once they are old enough to do so. However, it is likely that this has happened.



Should I test my child?

Our research demonstrated that parents had a range of sometimes very strong, but often undecided, views about whether they should test their child and when they might test. Some planned to test their children as soon as was physically possible. Others expressed the view that any decision to undertake online DNA testing is something which should be led by the child when they were mature enough to do so, and others believed that such decisions should be deferred to adulthood.

Parents often weigh the perceived benefits of their child knowing about - and possibly connecting with - their genetic relatives during childhood against the possible risks.

Some kinds of relationships (particularly sibling relationships) may be understood as more easily developed during childhood, and parents can worry about the impact of 'missing out' on these connections during childhood. Others are interested in the health and ancestry-related information which these sites provide.

On the other hand, parents may worry that connecting with genetic relatives could be emotionally demanding for their children, potentially lead to rejection, emotional upheaval or the blurring of family boundaries. Others worry about how the donor might respond if they expected to be anonymous, or anonymous until the child was 18. Parents might worry that their child's DNA data might be used by online DNA test providers for purposes they weren't expecting, and that this would not be something the child would choose for themselves.

Parents will view and balance these considerations in different ways which will vary from family to family and child to child. Decisions may be shaped by the availability of other routes to access information about genetic relatives (i.e. formal routes such as through the Human Fertilisation and Embryology Authority (HFEA)).

If you are finding this to be a difficult decision, you are not alone. In our research, many parents experienced this question as a moral dilemma - to which there is no right answer. There are people you can talk to, to help you make sense of your thoughts and feelings, and to support your decision-making - details of some helpful organisations can be found at the end of this leaflet.

If I test my child through an online DNA testing site, do I have a right to delete my child's data at a later date?

Under data protection regulations you have the right to delete data that you have uploaded to a website/app. However, that might, in practice, be difficult to achieve.

It is important to remember that people who have 'matched' with your child may have taken a screenshot or otherwise recorded the information about the match. Therefore, there are limitations to deleting your data once it has been uploaded.

What kind of questions should I consider before making the decision about whether to test my child?

- What will you do if your views on using DNA testing differ from your child's (future) views?

Our research has shown that some parents are concerned that their children will be upset about the decision they made to either test or not test their child at a young age. This is a perfectly understandable concern, particularly since this is a relatively new technology and we do not yet know the long-term consequences of different responses or options. You need to make a decision that feels right for you and your family. Being open with your child about your decision and your reasoning, and regularly creating space to talk about it in age-appropriate terms, can help your child understand your position. It is also important that you make space to listen and respond to your child's views as they emerge and change over time. Although you cannot reverse the decision to test (or not test) a child at a particular age, it is possible to change permissions on the website and parents may also want to respond to children's feelings about communicating and/or meeting with genetic relatives.

• What can you do if you find a match?

It is important to check if the test you have used provides information on any DNA 'matches' (some websites enable you to opt in or out of this service). If so, you should consider how you would respond if you do find a 'match' to your child via donor conception. This could be a genetic half sibling (who may also be donor conceived or possibly a child of the donor), the donor or someone more distantly related to them via the donor. You might choose to make contact on behalf of your child; depending on their age you might tell them that you have found a match and let them decide what the next steps should be. We found that some parents chose to keep the information to themselves until their child turned 18.

If your child has been matched with a genetic half-sibling, it is important to consider that the person you are contacting may not know they are donor conceived, or they might not know that their parent has donated gametes.

You may also 'match' only with quite distant genetic relatives on the donor's side (e.g. second or third cousins) and they might not know that their relative has donated gametes. It is often possible to trace the donor by building family trees from these initial contacts and working out how they connect to each other, but this can involve considerable genealogical research and is not always straightforward.



- **How will you and your child feel if you don't find a match?**

Finding matches to donors/donor siblings using DNA testing sites is only possible if people related to your child via donor conception have tested with the online DNA testing company, or where appropriate, uploaded their DNA to the site, and enabled the matching function. It might be the case that you do not find a close match straight away, or at all. Alternatively, you may find only quite distant matches (e.g. third or fourth cousins). It is worth considering how this would make you and your child feel. Having a discussion about this prior to testing can be a valuable way to manage expectations.

- **Am I and my child(ren) interested in finding out about the donor, or donor siblings, or both?**

There are wide variations in the level of interest among individuals and families in finding donor relatives. Our research showed that for some people, finding information about (their child's) donor siblings was the primary focus, as they were interested in enabling their child(ren) to build relationships with them from a young age. For others, the donor, and perhaps the donor's wider family, is more or equally important. Before testing your child, it is worth taking time to think about who you are looking for, and how you will manage other matches should they arise.



I am thinking of testing my child, what are the potential implications I should be aware of?

- **Data Privacy**

As noted above, when using an online DNA testing service, it is important to remember that you are providing personal data to a commercial entity and to understand the privacy risks associated with use of these services. It is recommended that you read the Privacy Policy and think carefully about what you feel comfortable with.

- **Donor/donor siblings (or their parents) might not want a relationship with your child (either at all, or while they are still a child)**

Managing expectations from the outset is important. Not everyone involved in donor conception will think the same way about their donor relatives.

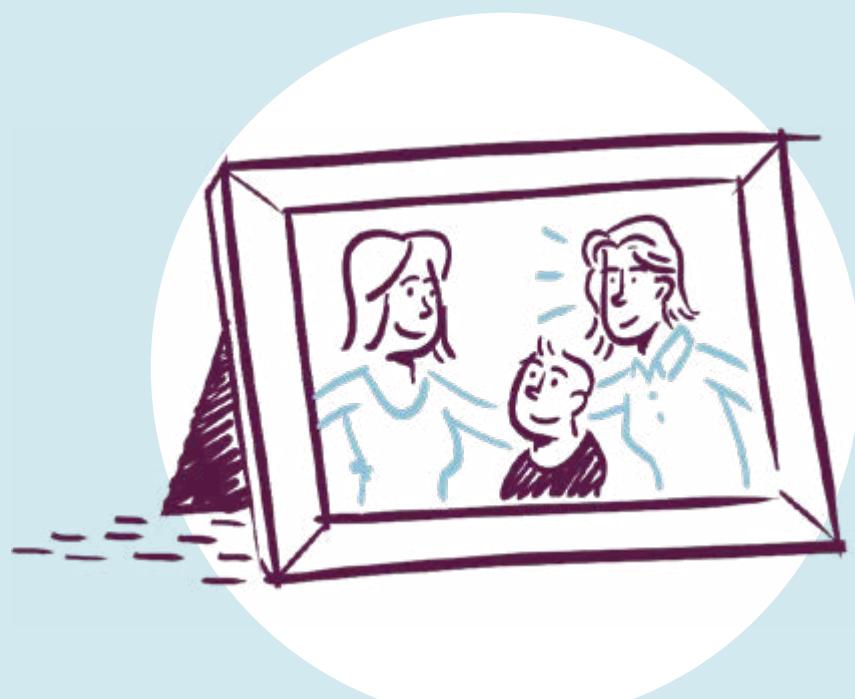
Just because someone has added their or their child's DNA' to a site does not necessarily mean that they will desire contact at this stage in your child's life. Some donors may feel that meeting and/or establishing a relationship with the person born from their donation while they are still young is appropriate (if this is desired by the donor conceived person and/or their family) while others may feel it is more appropriate to wait until the donor conceived person is grown up. Similarly, while you may feel it is important for your child to make early connections to donor siblings, other families may feel differently. They may have uploaded DNA for the purposes of accessing the health or ethnicity information provided, identifying the donor rather than donor siblings, or may simply wish to know about donor siblings without looking to establish a connection at this stage in their or their child's life. Reactions to contact can also vary amongst different family members with some being more welcoming than others.

- The donor may not have told their own family, or may only have told some family members about their donation.

Testing your donor conceived child will have implications not only for your family and the donor themselves, but also the donor's family. Our research shows that some donors do not tell their families about their decision to donate or may only have told some members of their family (e.g. their partner, but not their children or their parents). When donors decline, or have concerns about, contact with people conceived as a result of their donations, our research suggests this is often linked to fears about the impact on their existing family members or relationships.

- Your child may 'match' with someone who does not know that they are donor conceived (or that one of their parents was a sperm/egg donor).

Our research has shown that this kind of scenario does arise, and that by testing your child using an online DNA testing site you can become 'a gatekeeper' of someone else's information, where you are put in the position of having to decide whether and how to tell someone else that they may be donor conceived, or their parent has donated sperm or eggs. You may wish to consider how you would feel about this, or what you might do if such a circumstance arises. It is also something you may wish to discuss with your child, particularly if they are able to access their account directly.





- **Information about the donor may have implications for others**

While the decision to test is one for you (and your child, depending on their age), it is important to note your child's DNA may reveal information about their donor relatives. This information may hold implications for others who might share the same donor. This includes same-donor siblings within your family. If this is the case, it is important to consider that different children within the family may have different needs and position of having to decide whether and how to tell. In addition, it might include same-donor siblings in other families, with whom you might already have some line of communication (for example, if you have connected with other families via 'donor number' social media groups). If you discover information about the donor, you may have to decide whether to share this information and under what circumstances with group members. You should be aware that, if your child is in contact with donor siblings, they may also share this information themselves.



Where can I access support in making this decision?

- **Donor Conception Network:** is a charity offering information, support and community to donor conception families and prospective families.
- **British Infertility Counselling Association (BICA):** The British Infertility Counselling Association (BICA) also provides access to accredited fertility counsellors. While some accredited fertility counsellors may have experience of supporting those navigating searching for the donor or donor siblings, there is currently no accreditation scheme which guarantees expertise in this area. You may wish to seek word of mouth recommendations when selecting a counsellor. BICA is currently working to develop dedicated intermediary counselling guidance and a register of professionals in this area.

Useful resources and additional information

Further information about using online DNA testing:

- [‘The Best Tried and Tested DNA Tests 2024’](#), tried and tested by Debbie Kennett
- [International Society of Genetic Genealogy, ‘Beginners’ Guide to Genetic Genealogy’](#)
- [‘Before You Buy DNA Tests - Things to Consider’: a short video containing information on what to look out for is available in this short video, based on research conducted in New Zealand](#)
- [Office of the Privacy Commissioner of Canada, ‘Direct-to-consumer genetic testing and privacy’](#) - a useful resource that can help guide you regarding the key privacy issues to consider
- [Blog exploring the potential insurance implications of DNA testing](#)
- [Royal College of General Practitioners position statement on genomic testing](#)

Support organisations

[Donor Conceived UK](#)

[Donor Conception Network](#)

[British Association of Infertility Counsellors \(BICA\)](#)

Facebook Groups

[DNA Help for Genealogy UK](#) - provides advice on the interpretation of DNA results.

The regulator

[The HFEA have information on donor conception](#)

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