Sperm and Egg Donation and Online DNA Testing

– Information for Donors

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These information leaflets are designed to help answer questions that sperm and egg donors 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 for people thinking of donating, or who have already donated through a UK licensed clinic. Some of these issues are also relevant for sperm donors who have donated 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[1] and MyHeritage DNA). Each company's service will have its own features, terms and conditions and privacy policies. These terms and 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.

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[1] We 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.[2] 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,[3] donor conceived person or a donor sibling also submits their DNA to the Register.

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[2] This 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

[3] While 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, 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).

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[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.

- **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:**
  Some parents are interested in testing their child to identify the donor and/or to see if the child has any 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.

Specific questions sperm and egg donors may have about online DNA testing

What might online DNA testing mean for me as a donor?

The existence and easy availability of online DNA testing means that it is possible for donor conceived people or their parents to discover genetic relatives and find the donor using online DNA databases. If you have donated in the past, or are considering donating, you need to be aware that you might be discoverable from an online DNA test. This is true even if you are considering donating anonymously outside of the UK and you, yourself, have not done an online DNA test. If your genetic relatives (including those in your extended family) have done an online DNA test, it is possible that someone born from your donation might discover their genetic relationship to you, the donor, through another member of your family, and contact them directly. Research shows that, for some people, it can be very distressing to discover unexpected genetic connections in this way.

How likely is it that I will be found by people born of my donation via online DNA testing?

Online DNA testing means that any donor whose donation has led to the birth of a child is potentially identifiable and this is an increasingly realistic possibility. This does not mean, however, that every donor will be identified or contacted or that every donor conceived person will be able or want to trace people related to them via donor conception. If you donated overseas or you agreed for your donation to be exported to another country, people from other countries may ‘match’ with you. It is also more likely that sperm donors will be identified, as sperm donation is used more frequently than egg donation and typically results in a larger number of offspring per donor.

You should also remember that there are other ways donor-conceived people might get in touch with you. For example, if you donated at a UK clinic after 1 April 2005 then a donor conceived person can ask the HFEA for the donor’s name, date of birth and last known address, once they turn 18.

As well as online testing, donor conceived people may also be able to find out identifying information from Human Fertilisation and Embryology Authority (HFEA). In October 2023, the first donor conceived people born under the identity release system in the UK, conceived with donations made after 31st March 2005, were able to request the donor's identifying information from the HFEA.

You may wish to think about what being identified might mean for you so that you can prepare yourself and, potentially, other people in your life, for the possibility of being contacted by people born as a result of your donation '(see 'Preparing for Contact Leaflets' in the resource section below).

How many donor conceived people might want to get in contact with you?

It is impossible to say how many donor conceived people will want to make contact with you and it will also depend on how many children were born from your donation. However, in the UK, where donations are made in a licensed clinic there is a limit placed on the number of families that can be formed as a result of your donation. The limit is 10 – which means that up to 10 separate families may be created from your sperm or eggs. If you donate in a UK clinic, you are able to specify a lower family limit if you choose to do so. There is no limit on the number of children each family can create. Donors can contact the HFEA to find out how many children were born from their donation. If you donated after 1 August 1991, you can find out:

- the number of children conceived from your donation
- the sex of the child(ren) conceived from your donation
- the year of birth of the child(ren) conceived from your donation.

The clinic at which you donated may also be able to let you know the outcome of your donation.

If you donated abroad

If you donated at a clinic or a sperm or egg bank and your sperm or eggs were exported oversees to help people in countries other than the UK have children, the UK 10 family limit will not apply. Different countries have different rules about family limits. If your sperm or eggs are exported, they might be used for a much higher number of families than the ten allowed in the UK. You may wish to discuss with the clinic or gamete bank what their policy is in relation to the export of gametes from the UK.

The clinic or gamete bank may have set up their own intermediary system through which people conceived from your donation can contact you. It is worth checking the website of the clinic or bank where you donated or getting in touch with them directly to ask whether they offer any linking services and how they work.

If I am found through DNA testing, what do I do?

As a donor you bear no legal responsibility for the donor conceived person if you donated through a licensed clinic in the UK, and you are not legally obliged to engage with the donor conceived person. However, if a donor conceived person does reach out, donors are encouraged to respond as this enables the best possible outcome for the donor conceived person. It is important to recognise the sensitivity of this interaction and the impact it can have on the donor conceived person. If you decide that you don't want to have any further contact, it would be helpful to be clear and say that to the donor conceived person. The donor conceived person may want some medical information or other information about you and your family and it is worth considering how you can respond positively to that, and how it can be provided while maintaining the boundaries of contact you are happy with.

What if I am contacted by the recipient parents when the child is young?

The wide availability of online DNA testing means that the parents of donor conceived children might be able to identify the donor before the donor conceived person turns 18, at which time they may be entitled to access information from the HFEA. However, not all parents by donor conception or their children will want early contact.

When you are deciding to become a donor, you should consider how you (and your partner and any children) would feel if you were to be contacted by someone who has had a child as a result of your donation while that child is young.

As a donor you do not have to engage with the donor conceived person, or their parents, or with their parents if you do not want to. However, if a donor conceived person, or their parent, does get in contact, donors are encouraged to respond rather than ignore such a request. Although some contact is encouraged, if you decide that you don't want to have any further contact it would be helpful to be clear and say that to the parent(s) of the donor conceived person. It would also be helpful to clarify whether it is a case of never wanting further contact, or not wanting contact now (i.e, while the child is young).

If a donor conceived person under 18 gets in touch, it may be that you feel uncomfortable interacting directly with a child. In this situation, you may want to encourage them to tell their parent(s) that they have contacted you and to consider whether you would feel comfortable remaining in contact if the parents are not going to be involved. Our research has found that some donor conceived people feel that forming relational links during childhood is important.

There is some support for you and your family to help you navigate the situation. At the end of this leaflet you can find links to the websites of both the Donor Conception Network and Donor Conceived UK, as well as a link to a series of leaflets which have been developed to help donors and their families prepare for contact with donor conceived people.

If I am contacted by a donor conceived person, what might they to want to know?

Contact might happen in a variety of ways, or not at all. Similarly, what the donor conceived person may want or expect might vary. Donors often feel that they should follow the lead of the donor conceived person in terms of how contact happens. However, it may be helpful to explore your own feelings and preferences too.

A donor conceived person may simply want to find out more information about you. Some may have questions about your background, your health and medical information and a variety of other things. They may want to ask about what they might have inherited from you so they can better understand their own identity and origin story. Research suggests that it is very unlikely that the donor conceived person will be interested in money (and if you have donated via a licensed clinic after 1991 then they have no rights in this regard, and you have no financial obligations). Research, including that conducted as part of the ConnecteDNA project, has also shown that donor conceived people are generally very sensitive to donors' feelings and to the fact that the donor may not have told people in their life (such as their partner and children) that they were a donor.

How does the Human Fertilisation and Embryology Authority manage my information?

Since 1st April 2005, gamete donors have donated on an ‘identity release’ basis in UK clinics. This means that, when they turn 18, anyone born from your donation can apply to the Human Fertilisation and Embryology Authority (HFEA) for identifying information about you (including your name, last known address and date of birth). Donor conceived people can request non-identifying information about you (including medical information) from the age of 16. Their parents can access non-identifying information at any time.

If someone asks the HFEA for identifying information about you, they will try to contact you (via the address details you gave to the clinic at the time of your donation) to let you know. **If your address details are incorrect, you will not receive the notification, and if the details are out of date, the donor conceived person may have tried to contact you at your previous address.**

You can contact the HFEA at any time to update your contact details (link in resource section below)

If I am an anonymous donor, how can I make myself identifiable to people born from my donation?

If you donated between August 1991 and March 2005 at a UK clinic, you can remove your anonymity via the HFEA, and you can find further information on their website.

If you donated before 1st August 1991, you cannot remove your anonymity via the HFEA (because the HFEA did not exist before 1st August 1991 and therefore has no records of your donation), but other options are available to you. You can register directly with the Donor Conceived Register (DCR) held by The Liverpool Women’s Hospital NHS Foundation Trust, or take an online DNA test. It is important to recognise that this does not guarantee that any matches will be made with the children born from your donation, although the databases are growing all the time and it is always a possibility in the future.

Useful resources and additional information

Further information about using online DNA testing:

- ‘Preparing for Contact leaflets’: Leaflets developed by a multi professional group to help donors when thinking about having contact with people conceived from their donation
- ‘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

Leaflets on preparing for contact

Professionals from organisations across the sector have developed five leaflets which provide information and signposting for egg and sperm donors about the possibility of contact from any donor-conceived people born from their donations.

Support groups

Donor Conception Network

Donor Conceived Register (DCR)

Donor Conceived UK

DNA Help for Genealogy UK – Facebook group which provides advice on the interpretation of DNA results.

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 donors navigating unexpected contact, 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.

The Regulator - Useful HFEA resources

- https://www.hfea.gov.uk/donation/donors/
- Information about removing your anonymity
- Information on the #WhoIsMyDonor campaign
- https://www.hfea.gov.uk/donation/talking-to-your-family-about-your-donation/

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