

Understanding My Results

Report results: There are two possible outcomes in a DNA paternity test

1. Exclusion. – The person tested is **NOT** the biological parent. A paternity exclusion indicates that the tested man is not the true biological father of the child. A report which states a paternity exclusion will show a minimum of two exclusions (i.e. the alleles do not match) at two different genetic markers. When a paternity exclusion is indicated, the probability of paternity is 0%.

2. Inclusion. – The person tested **IS ACCEPTED** as the biological parent and the report says **NOT EXCLUDED**. If the report states that the tested man is not excluded as the biological father of the tested child, a combined paternity index (CPI) of greater than 200 is indicated. A CPI of greater than 200 is accepted to establish at least a 99.0% probability of paternity. A CPI greater than 1000 indicates that the probability of paternity is greater than 99.9%. The CPI number shows the number of individuals in the Australian population that would have to be tested who may have a profile the same as the tested person.

How does testing work?

We each have 2 copies of 22 chromosomes in our body. When an embryo is made, one chromosome is passed on from the mother and the other from the father. Then there are the sex chromosomes, either XX for a girl or XY for a boy. This then gives 46 chromosomes in the embryo. To establish paternity we look for markers at specific places on these chromosomes, in the child, and then we look for matching markers in the mother and the alleged father. The markers will have a number which relates to the size of the marker. We look for matches, and call these matching alleles. For example:

Genetic Markers	Mother	Child	Alleged Father	Matching Allele
D8S1179	8 10	10 13	13 14	13

We can see that for this marker the child matches with the mother for 10 and with the father for 13.

Sometimes they do not match, for example:

Genetic Markers	Mother	Child	Alleged Father	Matching Allele
D21S11	28 29	29 32.2	30 31	None

We can see that the child has inherited the 29 from the mother, but there is no match with the alleged father.

If the tested man is not the true biological father of the child, the half of the child's genetic material which comes from the father will not match the profile of the tested man. If the profile does not match, the tested man is excluded as being the true biological father of the child. This has to happen in at least 2 of 15 markers to exclude the man as the father.

We test 15 markers and then calculate the result to see if the alleged father is excluded or not excluded as being the father. When there is a match in all 15 markers we conclude there is a very high (greater than 99.9999%) chance of the alleged father being the father. We do this by calculating a *Probability of Paternity*. This is the percentage likelihood that a man with the alleles of the alleged father is the biological parent of the child, as compared to an untested, unrelated man of the same race. If the DNA of the alleged father is consistent (to a degree of mathematical certainty) with that of the child, then the report will conclude that the alleged father cannot be excluded as the biological father of the child. If the DNA is not consistent, it will conclude that the alleged father can be excluded as the biological father of the child. It is never possible to prove 100% that a man is definitely the biological father of a child, as there is always a chance, however remote, that another man in the population may have DNA types which match that child.

Men who are not the father of the child may match in a few markers due to chance, in the same way that a man and a child can have the same eye or hair colour and not be related. If a tested man does not match in more than one marker, he cannot be the biological father.

Counselling Options

Paternity testing means that in some cases the result from the laboratory will have a large impact on the lives of the individuals being tested. Mostly the paternity of the alleged father is confirmed, but in a small number of cases this is not so. These results can also affect other family members and friends of the individuals being tested. Some results will show that the person who you believed was related to you is not related to you in a biological way. This can be a life changing result and may be difficult to understand how the family structure can be changed after the DNA test.

However, some people may have a relationship confirmed which can eliminate thoughts of uncertainty about paternity or family relationships. The reaction to a paternity result may be relief or grief. Counselling can help individuals when the test result is unexpected.

The children being tested for paternity need to have the testing explained to them and why it is being done. This should be done before the testing has been done as counselling is important for the ongoing relationship with the child. Counselling should be undertaken if the result of the paternity test is believed to have an emotional impact on the child.

Counselling by someone outside the family is sometimes easier for the child rather than discussing the issues with the immediate family members. Paternity cases before the Family Law court will have counselling options available to them. For cases not before the court, counselling assistance can be accessed at the following sites:

NATIONAL

Mensline 1300 789 978 offers counselling 24 hours every day Lifeline 13 1114 offers counselling 24 hours every day
Men's Survival Centre 1300 853 437 Lone Fathers Association 02 6239 4650 / 07 3376 2876
Dads in Distress 1300 853 437

QUEENSLAND

Dr. Mary Seth Smith – private counsellor 07 3300 4404 Family Law Reform Association (Chelmer) (07) 3379 2871
Men's Rights Agency (07) 3805 5611

NEW SOUTH WALES

Burnside Fathers Support Service (02) 9806 0200 Credit Helpline (02) 9951 5544
DADS Australia Sydney (02) 4577 2707 Mobile 0419 986 345 DADS Lismore 0500 555 545
Grandparents Support Group (02) 4341 7640 GRANS Mobile 0418 622 120
Lone Parents' Support Network (02) 9720 8599 oneparent1@hotmail.com <http://oneparent.freeservers.com>
Men's Phone Line (02) 9979 9909 Men's Health and Wellbeing Association (02) 9802 1500
Unifam Counselling & Mediation Service (02) 9891628

NORTHERN TERRITORY

Lone Fathers Association (08) 8932 3339

SOUTH AUSTRALIA

Child Support Action Group (08) 8341 1225 Men's Information and Support Centre (08) 8212 0331

VICTORIA

Family Law Reform Party (03) 9387 7044 Grans Victoria (03) 9796 5442
Fathers for Family Equity (03) 9878 6588 Parents Without Rights (03) 9568 3349

WESTERN AUSTRALIA

Grandparents Support Group (08) 9332 5469 Men's Confraternity Inc (08) 9470 1734
Men's Equity Network (08) 9246 1102