Understanding the Paternity Test

In everyday language, a paternity test is referred to as a DNA test and many regard the test as a foolproof way of proving a biological relationship—Dr. Richard Njoroge, Pathologist explains.

In everyday language, a paternity test is referred to as a DNA test and many regard the test as a foolproof way of proving a biological relationship—usually a paternity or sibling relationship.

It is quite common for a court to order a man to take a DNA test in child maintenance proceedings, or for a woman seek court orders to compel a man to take a DNA test in some cases. Recently in Nairobi, relatives of fire victims burnt beyond recognition took DNA tests to identify their relatives. Similar tests were conducted when a famous marathon champion, Samuel Wanjiru, died and a number of women came forward claiming either that he was the father of their children, or that he was responsible for their pregnancy.

There have been numerous reports about women involved with more than one lover at the same time but are unable to pin down one as the biological father; or cases where country residency is denied on account that the stated children are not biologically related to the would-be immigrants.

So what exactly is a DNA test, and how is it performed? What does a 'positive' DNA test mean? How is a DNA test interpreted what samples are used and how do courts treat the result? And what are the different types of DNA tests? These are common questions from laymen.

DNA testing is the most accurate way of proving (or disproving) a biological relationship. DNA is the molecule of life. Its chemical structure is similar in all plants and animals. DNA is contained in chromosomes within a cell nucleus. Human beings have 23 pairs (46) of such chromosomes in all single somatic cells (except the sperm and eggs which have half the number). Other species have varying number of chromosomes, making them different from humans.

A gene is a piece of DNA that codes for a particular protein that influences bodily functions or appearance. These genes are identical in humans (and members of the same species). However, there are other parts of Human DNA that are "silent", and these do not code for any gene. These regions vary from one individual to another, and are never the same in two different or unrelated individuals, except in identical twins or clones.

These differences are, therefore, unique in one individual, and are transmitted during fertilization to the subsequent offspring. Therefore, a man transmits his unique DNA characteristics to his son, and it is the similarity between the man and the son that is exploited to in the DNA paternity test.

A DNA paternity test can be a curiosity test or legal test. The curiosity test is usually requested by a man who wants to confirm whether he is the biological father, whereas the legal DNA test is often ordered by a court of law, and must be confirmed by a medical doctor, usually a pathologist.

A DNA test is usually interpreted as confirming or excluding a biological ties – such as paternity or sibling relationships. When you receive your DNA Paternity test result, you will in most cases have a conclusive result. The result will either confirm that the alleged father is 'excluded' as the biological father with a probability of paternity of zero per cent. Alternatively, the result will confirm that the alleged father cannot be excluded from being the biological father with a 99.99%+ probability. In DNA paternity tests, usually blood or a swab from inside the mouth are all that's required, and a sample from the mother is not necessary.

Apart from paternity testing other DNA include DNA relationship tests which can determine a biological relationship between siblings, aunts, uncles and grandparents. This type of testing is particularly useful when an alleged parent (generally the alleged father) is not available or willing to participate in the paternity test.

DNA tests are not just used to confirm paternity or prove crime. Predisposition DNA testing is used in hospitals to check whether a person is at increased risk of certain inherited diseases such as diabetes, cancers or other neural diseases. A doctor is, therefore, able to advise the client accordingly. P

FACTBOX

easyDNA Kenya provides you with DNA testing that is confidential, affordable and accurate. Our local office is in Nairobi and our team is on hand to assist you with your DNA test requirements. Our DNA testing laboratory is in the UK and has conducted over 250,000 tests and is internationally accredited.