

DNA Testing

In the year 1980, investigation agencies ushered in the age of DNA testing that permitted investigators to perform astonishing feats for identifying people. The technological advancement of the present day allows a person to be differentiated from others with the examination of a single hair root. DNA profiles are now widely used in resolving issues of parentage, not only in human beings but also in animals. DNA is the material that governs inheritance of eye color, hair color, stature, bone density and other characteristics in humans and animals. DNA is a long narrow string-like object that can be normally packed into a space roughly equaling to a cube 1/millionth of an inch on a side. A strand of DNA contains tiny building blocks and is basically classified into four categories i.e. A, T, G, and C, by scientists across the world. DNA testing has its own advantages over serological methods such as blood typing and HLA analysis. A standard DNA typing can be conducted with a few hair roots, and does not require injecting syringes in the body. In contrast to proteins, DNA can be amplified by using the polymerase chain reaction method. By this method, even smaller sample sizes are adequate for testing. In comparison to proteins, DNA is considered to be resistant to degradation by common environmental insults. These tests can be performed even when the samples have been exposed to detergents, acids, gasoline, salt or bacterial contamination. DNA typing can be performed by demonstrating differences in length of specific DNA sequences. The process can be performed by digestion of DNA with restriction enzyme(s), followed by Southern blot hybridization using a probe specific for the polymorphic site. Other methods include single-locus DNA fingerprinting, in which polymorphism at a single locus is characterized, usually through the use of a specific probe or specific PCR primers. Multilocus DNA fingerprinting is another method by which polymorphism at multiple loci is simultaneously identified. The method is either performed by application of a mixture of single locus probes or application of a single probe that identifies multiple similar sequence polymorphisms. Although scientists believe that there cannot be any method by which identifications can be related so strongly other than the DNA test, there have been some scientifically legitimate criticisms based on concerns about allele frequencies in certain populations. The concerns raised stated that the chances of a random match may be higher than stated, because the database used for identifying the inheritance could be inappropriate for the subpopulation of people containing the suspect.

About the Author

Bad digestion with its excessive gas and burping is another plague of the elderly. They would rather not go to church nor visit a friend.

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