What Is DNA?

DNA, or deoxyribonucleic acid, is the fundamental building block of an individual's entire genetic makeup. It is a component of virtually every cell in the human body. Further, a person's DNA is the same in every cell. For example, the DNA in a person's blood is the same as the DNA in his or her skin cells, semen and saliva.

DNA is similar to fingerprint analysis in how matches are determined. When using either DNA or a fingerprint to identify a suspect, the evidence collected from the crime scene is compared with the "known" print. If enough of the identifying features are the same, the DNA or fingerprint is determined to be a match. If even one feature, however, of the DNA is different, it is determined not to have come from the suspect.

Where can DNA evidence be found at a crime scene?

Evidence	Location	Source
baseball bat	handle, end	sweat, skin, blood
hat, mask	inside	sweat, dandruff
eyeglasses	nose or earpiece	sweat, skin
kleenex	surface area	mucus, ear wax
bite mark	skin or clothing	saliva
stamp	licked area	saliva
ligature	inside/outside surface	skin, sweat

The saliva on the stamp of a stalker's threatening letter or the skin cells shed on a ligature of a strangled victim can be compared with a suspect's blood or saliva sample. Similarly, DNA collected from the perspiration on a baseball cap discarded by a rapist at one crime scene can be compared with DNA in the saliva swabbed from the bite mark on a different rape victim. This can be the evidence that links different crime scenes to each other in a small town, within a single state, or even across the nation. Recent advances in DNA technology are enabling law enforcement officers to solve cases previously thought to be unsolvable.