Name	Date
Name	Date

## **Pedigree Construction Notes-key**

When human geneticists first began to publish family studies, they used a variety of symbols and conventions. Now there are agreed upon standards for the construction of pedigrees.

	Male		Heterozygotes for autosomal recessive
0	Female	•	Carrier of sex-linked recessive
$\Box$ —O	Mating	Ø	Death
咒	Parents & Children 1 boy 1 girl	<b>↓</b>	Abortion of stillbirth sex unspecified
	(in order of birth)	ال	Proband
<b>₽</b>	Dizygotic twins	ı □⊤•	Method of identifying
4	Monozygotic twins		persons in a pedigree  Here the proband is Child 2 in Generation II
$\Diamond$	Sex unspecified	$1 \neq \overline{2}$ 3	
4 3	Number of children of sex indicated		Consanguinous marriage
	Affected individuals		

## Remember:

- 1. Males are always represented by **square** symbols, females with **circular** symbols.
- 2. A <u>line</u> drawn between a square and a circle represents a mating of that male and female.
- 3. Two lines drawn between a square and a circle indicate a **consanguineous mating**, the two individuals are **related**, usually second cousins or closer relatives.
- 4. When possible, the square should be placed on the <u>left</u> and the circle on the <u>right</u> of the mating line.

- 5. Generations are connected by a <u>vertical line</u> extending down from the mating line to the next generation.
- 6. Children of a mating are connected to a **horizontal** line, called the **sibship** line, by short vertical lines.
- 7. The children of a sibship are always listed in **order of birth**, the oldest being on the **left**.
- 8. Sometimes to simplify a pedigree only one parent is shown, the other is **omitted**. This neither signifies parthenogenic development nor does it signify divinely inspired conception, it merely means the parent left out is not from the family being studied and is genotypically **homozygous normal** for the trait being studied.
- 9. Normal individuals are represented by an <u>open square</u> or <u>circle</u>, depending upon the gender, and affected individuals by a solid square or circle.
- 10. Each generation is numbered to the <u>left</u> of the sibship line with <u>Roman Numerals</u>.
- 11. Individuals in each generation are numbered sequentially, beginning on the left, with <u>Arabic Numerals</u>. For example, the third individual in the second generation would be identified as individual <u>II-3</u>.