






Common Ancestor	Child	Grand child	Gr. Grand child	2x Gr. Grand child	3x Gr. Grand child	4x Gr. Grand child	5x Gr. Grand child	6x Gr. Grand child
Child	Sibling COI: 12.5-25%	Niece / Nephew COI: 6.3%-12.5%	Grand Niece / Nephew COI: 3.1%-6.3%	Gr. Grand Niece / Nephew COI: 1.6%-3.1%	2x Gr. Grand Niece / Nephew COI: 0.8%-1.6%	3x Gr. Grand Niece / Nephew COI: 0.4%-0.8%	4x Gr. Grand Niece / Nephew COI: 0.2%-0.4%	5x Gr. Grand Niece / Nephew
Grand child	Niece / Nephew COI: 6.3%-12.5%	First Cousin COI: 3.1%-6.3%	First Cousin 1x Rem. COI: 1.6%-3.1%	First Cousin 2x Rem. COI: 0.8%-1.6%	First Cousin 3x Rem. COI: 0.4%-0.8%	First Cousin 4x Rem. COI: 0.2%-0.4%	First Cousin 5x Rem.	First Cousin 6x Rem.
Gr. Grand child	Grand Niece / Nephew COI: 3.1%-6.3%	First Cousin 1x Rem. COI: 1.6%-3.1%	Second Cousin COI: 0.8%-1.6%	Second Cousin 1x Rem. COI: 0.4%-0.8%	Second Cousin 2x Rem. COI: 0.2%-0.4%	Second Cousin 3x Rem.	Second Cousin 4x Rem.	Second Cousin 5x Rem.
2x Gr. Grand child	Gr. Grand Niece / Nephew COI: 1.6%-3.1%	First Cousin 2x Rem. COI: 0.8%-1.6%	Second Cousin 1x Rem. COI: 0.4%-0.8%	Third Cousin COI: 0.2%-0.4%	Third Cousin 1x Rem.	Third Cousin 2x Rem.	Third Cousin 3x Rem.	Third Cousin 4x Rem.
3x Gr. Grand child	2x Gr. Grand Niece / Nephew COI: 0.8%-1.6%	First Cousin 3x Rem. COI: 0.4%-0.8%	Second Cousin 2x Rem. COI: 0.2%-0.4%	Third Cousin 1x Rem.	Fourth Cousin	Fourth Cousin 1x Rem.	Fourth Cousin 2x Rem.	Fourth Cousin 3x Rem.
4x Gr. Grand child	3x Gr. Grand Niece / Nephew COI: 0.4%-0.8%	First Cousin 4x Rem. COI: 0.2%-0.4%	Second Cousin 3x Rem.	Third Cousin 2x Rem.	Fourth Cousin 1x Rem.	Fifth Cousin	Fifth Cousin 1x Rem.	Fifth Cousin 2x Rem.
5x Gr. Grand child	4x Gr. Grand Niece / Nephew COI: 0.2%-0.4%	First Cousin 5x Rem.	Second Cousin 4x Rem.	Third Cousin 3x Rem.	Fourth Cousin 2x Rem.	Fifth Cousin 1x Rem.	Sixth Cousin	Sixth Cousin 1x Rem.
6x Gr. Grand child	5x Gr. Grand Niece / Nephew	First Cousin 6x Rem.	Second Cousin 5x Rem.	Third Cousin 4x Rem.	Fourth Cousin 3x Rem.	Fifth Cousin 2x Rem.	Sixth Cousin 1x Rem.	Seventh Cousin

## Abbreviations:

**Gr. = "Great"      Rem. = "Removed"**

### Color

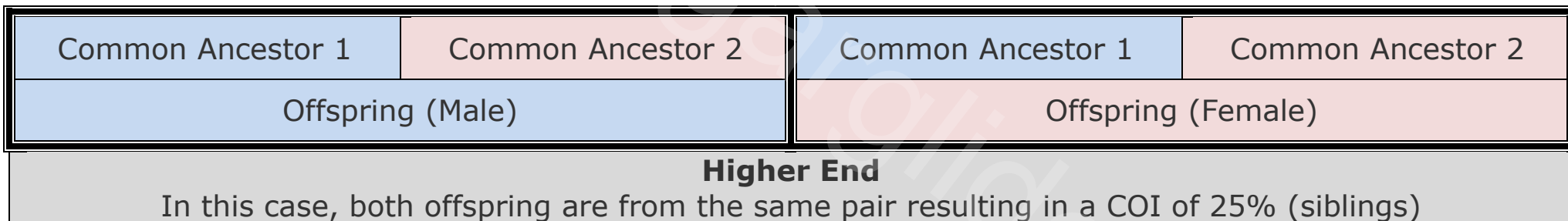
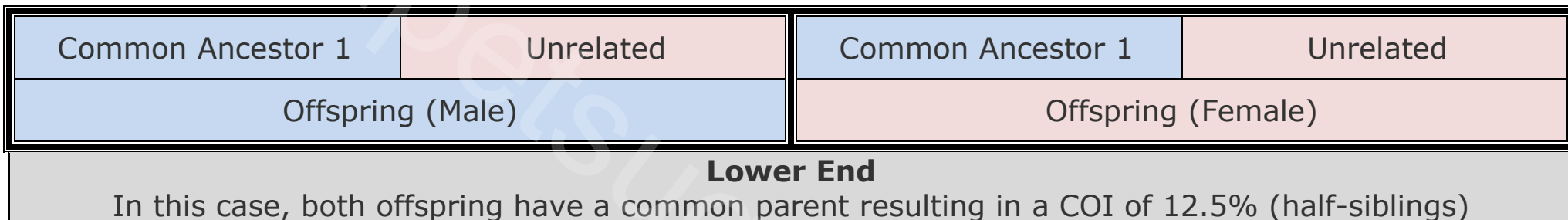
### Meaning

	Inbreeding - These pairings are very closely related and should be avoided. They have the highest likelihood of genetic defects and issues.
	Close Line Breeding - These pairing should only be done limitedly when necessary to achieve, perfect and maintain certain characteristics by responsible and experienced breeders.
	Line Breeding - Pairings can be done limitedly to achieve, perfect, and maintain certain characteristics by responsible and experienced breeders.
	Distant Line Breeding- At this point some breeders will classify them as "unrelated" and safely paired together with limited possibilities of potential genetic problems.
	"Unrelated" - Even though they are technically "related", there are enough genetic differences to avoid most all problems related to inbreeding or line breeding.

## Notes:

COI is more important than relationship. When choosing a pairing, let the COI of the joey overrule the relationship.

The chart above assumes that the COI of the common ancestor is zero. The range of COIs in the relationship chart is a result of full siblings or half siblings from the common ancestor(s). See charts below:



## Currently Recommended COI

Inbreeding: 12.5% - 100%

Close line breeding: 6.3% - 3.1%

Line breeding: 3.1% - 1.6%

Distant line breeding: 1.6% - 0.04%

"Unrelated": 0.04% - 0%