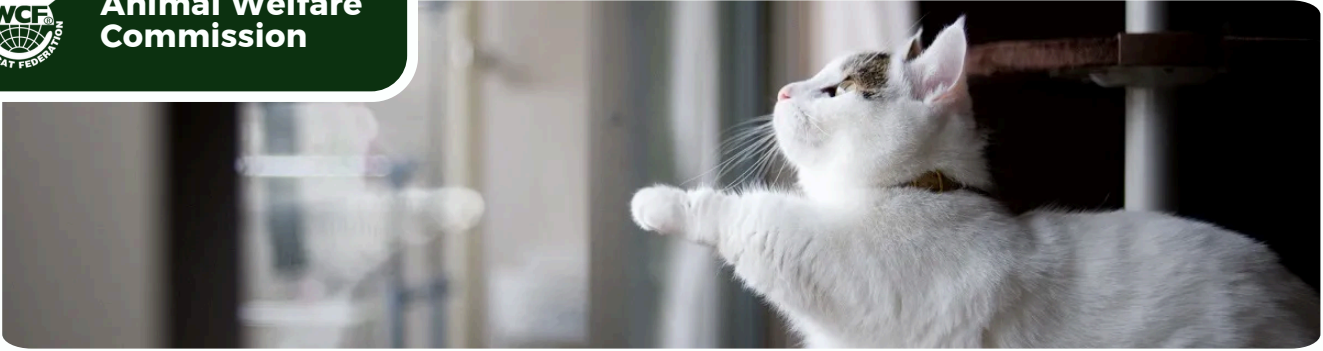




Balancing Cuteness and Welfare: Understanding the Welfare Risks of Munchkin Cat Breeding

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The science behind the short legs:

The Munchkin's characteristic short limbs are the result of a **dominant gene mutation** symbolized as **Mk**. DNA research has discovered a mutation in a new gene on cat chromosome B1 called UDP-Glucose 6-Dehydrogenase (UGDH).

- Mk = mutated gene (causes short legs)
- mk = normal gene (causes normal-length legs)

Genotype	Phenotype	Viability
mk/mk	Normal legs	Healthy and viable
Mk/mk	Short legs	Viable
Mk/Mk	Severe skeletal deformity	Embryonic lethality

Breeding of Munchkin cats:

The most serious misunderstanding in Munchkin cat breeding revolves around the gene's dominant and lethal nature, specifically consequence of breeding two short-legged Munchkins together. This pairing is considered unethical and irresponsible because it results in non-viable embryos leading to fetal loss and reduced litter sizes.

Recommendations

- **Breeding of two short-legged Munchkins together is NOT RECOMMENDED**
 - Despite the high possibility that homozygous embryos will have no negative effect on the pregnant queen or littermates, as these embryos may fail to implant or be reabsorbed post-implantation, there are recorded cases of surviving homozygous Munchkins (Mk/Mk). However, these Munchkins are severely affected very early in life, often fatally, exhibiting severe skeletal deformities (e.g., underdeveloped long bones, chest deformities, or spinal malformation), as well as respiratory or circulatory failure soon after birth due to thoracic constriction or organ compression.
- Pair short-legged Munchkins with normal-legged Munchkins or outcross them to Domestic Longhair and Shorthair
- Avoid breeding a Munchkin cat with any other cat breed that carries a known genetic mutation or deformity.
 - Combining the Munchkin's chondrodysplasia (the short-leg mutation) with a second genetic defect can result in compounded, severe, and irreversible health problems in the offspring, leading to extreme suffering and a poor quality of life.

			
		Mk mk	
	Mk	Mk/Mk Die in utero 	Mk/mk Short-legged Munchkin 
	mk	mk/Mk Short-legged Munchkin 	mk/mk Normal-legged Munchkin 

Results:

- **25% Embryonic lethality**
- 50% Short-legged Munchkin
- 25% Normal-Legged Munchkin



	Mk	mk
mk	mk/Mk Short-legged Munchkin 	mk/mk Normal-legged Munchkin 
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Results:

- 50% Short-legged Munchkin
- 50% Normal-Legged Munchkin