

## VETERINARY TECHNICAL DATASHEET

Myeloperoxidase Deficiency; mutation originally found in Italian Hound



Mutation Found In :Italian Hound

### Disorder Type

- Immune system

### Disease Severity

- Mild/moderate

### Background

Myeloperoxidase deficiency is a rare hereditary condition characterized by decreased function or absence of the myeloperoxidase enzyme in neutrophils and monocytes which are white blood cells and part of the immune defense system. Affected dogs are usually asymptomatic but they may have increased susceptibility to fungal and bacterial infections. The disease has been reported in Italian hounds.

### Key Signs

- Susceptibility to fungal and bacterial infections

### Clinical Description

Affected dogs are usually clinically normal though an increased susceptibility to infections, especially fungal and bacterial infections, has been associated with the disease. The disease might also predispose an affected dog to neoplastic and neurodegenerative changes. The disease is caused by the deficient or absent function of the myeloperoxidase enzyme in neutrophils and monocytes.

### Mode of Inheritance

- autosomal recessive

### Gene Name

- MOP

### Next Steps

Therapy is targeted at treating the secondary infections.

### References

Gentilini F, Zambon E, Mancini D, Turba ME. A nonsense mutation in the myeloperoxidase gene is responsible for hereditary myeloperoxidase deficiency in an Italian hound dog. *Anim Genet*. 2016 Oct;47(5):632-3.