

# VETERINARY TECHNICAL DATASHEET

Paroxysmal Dyskinesia, (PxD); mutation originally found in Soft Coated Wheaten Terrier



Mutation Found In :Soft Coated Wheaten Terrier

## Disorder Type

- Nervous system

## Disease Severity

- Moderate

## Background

Paroxysmal dyskinesia is a rare hereditary neurological disorder. The disorder causes episodes of abnormal tone or movement of limbs. Affected dogs seem normal between these episodes. No abnormalities are seen on MRI or postmortem examination of the brain.

## Key Signs

- Episodes of abnormal tone
- Abnormal movement of limbs.

## Clinical Description

Clinical signs emerge between 8 months and 3 years of age with the median of 2.25 years. The disorder causes episodes of flexion and extension of the hind limbs. Mild episodes can be seen as exaggerated flexion of one hind limb while walking or as a stiff gait. Severe episodes can include the front legs and the dog may be unable to walk or stand. Affected dogs are conscious during these episodes. An episode could last as little as several minutes up to over four hours. Frequency can vary as well: from once every few days to over 10 times a day. Affected dogs seem normal between these episodes. The severity of these episodes tends to increase over time.

## Mode of Inheritance

- autosomal recessive

## Gene Name

- PIGN

## Next Steps

Antiepileptic medication (especially benzodiazepines) can be used but the response is usually not very good. For severely affected dogs euthanasia is often elected on welfare grounds.

## References

Kolicheski A, Johnson G, Mhlanga-Mutangadura T, Taylor J, Schnabel R, Kinoshita T, Murakami Y, O'Brien D. A homozygous PIGN missense mutation in Soft-Coated Wheaten Terriers with a canine paroxysmal dyskinesia. Neurogenetics DOI 10.1007/s10048-016-0502-4