



Medical Detection Dogs (MDD) is a registered charity, whose patron is HRH The Duchess of Cornwall.

MDD trains dogs to detect the odour of human disease. It is at the forefront of the research into the fight against cancer and helping people with life-threatening diseases.

Some dogs are trained to find the odour of diseases, such as cancer, in samples such as urine, breath and swabs. MDD receive no Government funding for their work and rely entirely on the generosity of donations from trusts and the public.

MDD was co-founded in 2008 by Dr Claire Guest, who was the training director of the first study programme to train dogs to identify cancer in 2003.

Dr Guest's experienced the apparent ability of dogs to sniff out the disease herself, when her dog Daisy made her aware she was suffering from breast cancer in 2009. The normally gentle dog refused to get in the car, and began prodding Dr Guest in the chest. When she felt the patch, Dr Guest realised it was bruised. Tests revealed she had a benign tumour near the surface, and a deeper malign growth, which could have been severe if not for the early diagnosis.

Dr Guest said the incident gave her the *"impetus to really believe this could be life-changing for people. Britain has one of the worst rates of early cancer detection in Europe. The NHS needs to be bolder about introducing new innovative methods to detect cancer in its early stages. Our dogs have higher rates of reliability than most of the existing tests. We know their sense of smell is extraordinary. They can detect parts per trillion - that's the equivalent of one drop of blood in two Olympic-sized swimming pools. We should not be turning our backs on these highly sensitive bio-detectors just because they have furry coats."*

MDD started trials in 2015 at Milton Keynes University Hospital, after an initial study showed specially trained dogs can detect prostate tumours in urine in 93% of cases.

It is hoped canine testing could help show up inaccuracies in the traditional prostate test, used to determine if men need a biopsy. The test has a high "false positive" rate, and many men are unnecessarily referred for the invasive procedure.

Iqbal Anjum, a consultant urologist at the hospital, said the study was *"an extremely exciting prospect". Over the years there have been many anecdotal reports suggesting that dogs may be able to detect cancer based on the tumour's odour. It is assumed that volatile molecules associated with the tumour would be released into the person's urine, making samples easy to collect and test."*

MDD also trains some Medical Alert Assistance dogs to detect minute changes in an individual’s personal odour triggered by their disease and alert them to an impending medical event. Currently around 60 dogs assist people living with Type 1 diabetes, Addison’s, severe nut allergy, narcolepsy and other life threatening conditions. The waiting list is between 18 months and 3 years. Dog “alerts” are clear and persistent, as owners often do not know that an “episode” is imminent. The dogs are with their owners 24/7 and alert both during the day and night. The dogs are trained to alert by either jumping up and/or licking strongly. The type of alert will vary depending on the needs of the owner.

The total cost of training a Medical Alert Assistance Dog is £11,200. The total cost of training a Cancer Detection Dog is £7,200 with an ongoing monthly cost of £600. The MWA has agreed to give £750 of Project money raised in 2016/2017 to this very worthwhile charity.

Naomi Hancock

