

# Study published on the transmission of the giant roundworm *Ascaris* between pigs and people

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The giant roundworm *Ascaris lumbricoides* infects approximately 0.8 billion people worldwide, leading to chronic morbidity including intestinal problems and poor growth, particularly in children. The closely-related worm *Ascaris suum* infects pigs across the globe, causing production losses for pig farmers. Human and pig roundworms look very similar, so it is unclear whether they are actually the same or two

separate species.

In a study published online in *The Journal of Infectious Diseases*, researchers from the RVC, Liverpool School of Tropical Medicine, University of Copenhagen and the Royal Cornwall Hospital investigated the transmission of giant roundworms between pigs and people. Over 500 roundworms were obtained from people and pigs on four continents and variations in the worm DNA were investigated.

Marked differences between worms originating from people and pigs were found, supporting the existence of two separate *Ascaris* species. Roundworm infections in people in the UK appeared to be of pig origin and there was also transmission between people and pigs in Uganda. In addition, genetic differences between worm populations from different countries, villages and individuals, were observed consistent with very local spread of infection. The results provide new insights into the spread of giant roundworm infections. Control programmes for human [roundworms](#) should take into account the potential for transmission from pigs, particularly in areas where households keep [pigs](#) or where pig manure (which may contain roundworm eggs) is used as fertiliser.

**More information:** Betson, M; Nejsum, P; Bendall, RP; Deb, RM; Stothard, JR (2014) "Molecular Epidemiology of Ascariasis: A Global Perspective on the Transmission Dynamics of *Ascaris* in People and Pigs." *The Journal of Infectious Diseases*.  
[dx.doi.org/10.1093/infdis/jiu193](https://doi.org/10.1093/infdis/jiu193)

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