





Zoonoses Fact Sheet: Gut Diseases

Gastrointestinal diseases are a major problem in young children in Indigenous communities. In Western Australia, hospitalisation for gastroenteritis was 7 times higher in Aboriginal children than Non-Aboriginal children (Gracey and Cullinane 2003). Diarrhea was associated with potential zoonotic pathogens: including bacteria such as *Salmonella* spp., and *Campylobacter* spp., and protozoa such as *Cryptosporidium* spp. and *Giardia* spp. (Gunzburg et al 1992, Meloni et al 1993).

These germs have all been found in dogs in Indigenous communities. However, it's unclear what the exact role of the dog is in the spread of disease. Dogs might be one of the sources of the germs. Dogs might also play a part in transferring germs from other sources, such as baby's nappies (kimbes), or from food, to people.

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| Salmonella | Research has found 80% of Salmonella in dogs in an Indigenous community were the same as those causing disease in people in that community (Brown 2006) |
| Campylobacter | Research is being done to see if the Campylobacter in people and dogs is the same type. |
| Giardia | 80% of dogs in Perth carried <i>Giardia duodenalis</i> (McGlade et al. 2003). Further research is looking at Indigenous communities. |
| Cryptosporidium | Research is being done to see if the Cryptosporidium in people and dogs is the same type. |

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| <p>Types of germs that cause gut diseases</p>  | <p>Bacteria</p> <p>Bacteria are tiny living things, too small to see with the naked eye. Hundreds of them would fit on the head of a pin. You can only see them with a microscope. Bacteria live in many places, including the soil, skin and gut. There are a lot of types of bacteria that live in the gut, but only a few can cause disease. Bacteria that can cause gut diseases include <i>Salmonella</i> and <i>Campylobacter</i> species</p> | <p>Protozoa</p> <p>Protozoa are a family of organisms larger than bacteria, but are still microscopic. They need to get inside another animal before they can breed up. Protozoa that can cause gut diseases included <i>Giardia</i>, <i>Cryptosporidium</i> and <i>Isospora</i>.</p> |
| <p>How are gut germs spread?</p>  | <ul style="list-style-type: none"> Bacteria and Protozoa that cause gastrointestinal diseases live in the gut. They are passed out into the environment with the faeces. They will live for days to months in a wet environment. If they are swallowed by a person or animal, they get into the gut again and can breed up, sometimes causing gut pain, vomiting and diarrhoea. These germs mostly cause problems when a dog's or person's immune system is already weak. <p>How can dogs get these germs?</p> <ul style="list-style-type: none"> Drinking water lying on the ground that has the germs in it Eating food that has the germs in it Eating or chewing on rubbish that has the germs in it Licking their feet or coat after having lain in an area with the germs. <p>How can people get these germs?</p> <ul style="list-style-type: none"> Drinking water that has the germs in it Eating food that has the germs in it Getting the germs on their hands after going to the toilet or changing a nappy, then eating without washing hands. Getting the germs on their hands by touching a dog, then eating without washing hands. Swimming in water that has the germs in it | |
| <p>How do we stop these germs spreading?</p>  | <ul style="list-style-type: none"> Attend to poor health infrastructure (dripping taps, boggy areas in yards, water supply, washing machines) Raise awareness of the risks of inadequate hygiene (understanding importance of germs, hand washing, food preparation, house cleaning, and removal of dog faeces from living areas.) Provide and fill drinking containers for dogs so they have a constant clean water source Improve general dog health: sick and skinny animals have more germs in their faeces Reduce dog breeding (younger dogs produce more germs in their faeces)  | |

Source: Dr Sam Phelan, Dog Health Programs in Indigenous communities, an Environmental Health Practitioner's Guide, AMRRIC, 2010

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