

A Report to Longdon Parish Council Health Issues Related to Dog Faeces.

By Councillor Brendan Cooper, FRSB

At the request of the Chair of the Parish Council, I have researched the published information on the health dangers of dog faeces to the Parish population, their interests (e.g. pets, animals, etc.) and the general environment.

Firstly I have summarised some of the general facts about dog faeces and then expanded on the consequences both to human and animal health. Apart from being objectionable because of its sight and smell, dog faeces is a source of serious infections. These infections spread after direct contact with the faeces or the ground on which it has occupied.

Overview of the facts about dog faeces

A single gramme of dog waste can contain 23 million faecal coliform bacteria, which are known to cause cramps, diarrhoea, intestinal illness, dehydration, and kidney disorders in humans (see **Common diseases affecting humans caused by dog faeces** section below) as well as harmful infections to animals (see **Dog faeces Infections that affect dogs and other wildlife** section).

Faeces in the local water supply can contribute nutrients that lead to overgrowth of harmful algae and weeds, killing fish and other wildlife. New research finds that dogs being walked in nature reserves contribute a significant amount of nutrients to the environment through their faeces and urine, which researchers warn could negatively impact local biodiversity. British Ecological Society journal, *Ecological Solutions and Evidence* (Feb 2022).

The myth that dog faeces “decomposes and becomes harmless” needs correcting. Most infections don’t happen from fresh faeces but in faeces that is 3 weeks to 3 months old! The immediate removal of dog faeces (“poop scooping”) should be normal practice by all dog owners.

Common diseases affecting humans caused by dog faeces

Salmonella Infections:

Salmonella Infections also known as salmonellosis is a very common bacterial disease. Generally these bacteria live in animal intestine and spread through their faeces.

Most people become infected through contact with infected animal faeces. It’s not life threatening. Most people recover within 3 days without any specific treatments. Only infected people need rest to recover.

Most common symptoms of salmonella infections are Diarrhoea, Nausea, Vomiting, Blood in the stool, Fever & Headache.

MRSA Infections:

MRSA stands for Methicillin Resistance Staphylococcus Aureus. It can cause deadly infections in both human (especially physically weaker people like child & old people) & animal body. These bacteria are resistant to most common antibiotics. Only a few advanced & expensive antibiotics can be used to treat MRSA infections. To recover from it you have to start the treatment at the very early stage of infection.

Most common symptoms of MRSA infections are Skin infections & Fever.

Giardiasis Infections:

Giardiasis is another intestinal infection caused by giardia lamblia. This disease can spread from dog & cat to human body through their faeces. It's not a deadly disease. Normally doctor prescribed some common antibiotics like Metronidazole & Tinidazole for 5 to 10 days to treat infected people. Most common symptoms of giardiasis infections are Abdominal discomfort, Diarrhoea & Vomiting.

Campylobacter Infection:

Campylobacter is a common bacterial intestinal infection caused by campylobacter bacteria. Normally these bacteria lives in animal intestine without causing harm. Humans are infected through raw milk, undercooked meat & dog feces. The most effective antibiotic for this infection is Erythromycin. Currently, doctors are prescribed Erythromycin for both human animal.

Most common symptoms of campylobacter infections are bloody diarrhoea, abdominal pain, vomiting, headache & fever. Can lead to severe kidney damage.

Hookworm infection

If your dog has a hookworm infection you can get it via his stool. Hookworm lives in the small intestine of infected dogs and pass eggs via their poops. Both hookworm eggs & larvae can be found in dog waste. Walking barefoot in this type of area is not safe. Normally, doctor prescribe *albendazole* and *mebendazole* for treatment of hookworm infections. Some people can recover without medicine!

Tapeworm infection

Tapeworm are not life threatening for both you & your dog. Its rare buy human can also infect with tapeworm via flea. So, you need to control fleas in your house. Doctor prescribed a well-tolerated medicine called praziquantel for both human & animals. Weight loss is the main symptom of tapeworm infection.

Ringworm infection

Human can easily infect from infected dogs & cats. It's not a life-threatening infection. If you can start the treatment at the very early stage of your ringworm infection, you will be ok within 1-2 weeks. You just need an antifungal cream, nothing else.

Toxicara infections

Some common symptoms of ringworm infection are red cracked skin, rash & hair loss. Dogs may deposit roundworm eggs (*toxocara canis*) in their faeces, which become infectious after about 3 weeks, and can remain so for up to 2 years. Anyone, but particularly children playing near to the ground, can run the risk of picking up and swallowing the eggs. The eggs then hatch in the intestine, burrow through the intestine wall into the blood stream and pass into the body.

Possible symptoms of toxocaral infection range from aches, dizziness and nausea to asthma and pneumonia, but as these symptoms can all be caused by other things, infections often go undiagnosed. In the UK there are around 100 cases of toxocariasis diagnosed each year. In rare cases eye disease and loss of vision can be caused when the toxocara larva passes through the eye.

Toxocariasis is not caught from fresh faeces. It's usually caught from soil or sand that has contained worm eggs for a few weeks or months.

Escherichia coli infection

Salmonella, E. Coli, and Campylobacter are bacteria that are excreted in the faeces of even healthy dogs. *E coli* 0157: H7 induces entero-haemorrhagic disease that can cause systemic illness by haemolytic uremic syndrome, which manifests as haemolytic anaemia, thrombocytopenia, and acute

renal failure. HUS can result in both acute, potentially life-threatening illness and lifelong, chronic illness.

Dog faeces Infections that affect dogs and other wildlife

Canine Parvo Virus:

Dogs are the main victim of this virus. This virus mainly spread by infected dogs faeces. This bacteria can also live on surfaces for long time (1 to 12 months)! Rarely human can get infected from infected dogs via stool. Parvovirus: A dog illness that is potentially deadly. Some common symptoms are bloody diarrhoea, weight loss, vomiting & fever.

Cryptosporidium.

The most common cause of cryptosporidium infection in dogs is accidental ingestion of contaminated water. This is common in dogs who like to play in lakes, rivers, or streams.

Bodies of fresh water can harbour several kinds of bacteria and parasites, and it only takes a few of the cryptosporidium parasites to cause an infection.

Direct contact with faeces from an infected animal or eating off of a contaminated surface where an infected animal has defecated can also cause infection. It's important that you do not let your dog eat food left in the wild because you can't tell if it's contaminated.

Most dogs are able to fight off the infection, but dogs with compromised immune systems are at greater risk. These include dogs who are already suffering from other infections, dogs with certain medical conditions, puppies whose immune systems haven't fully developed, and senior dogs.

Risk to farmland from dog faeces

Neosporosis

A dangerous parasite found in dog faeces is causing pregnant cows and sheep to abort their young, warn farmers. *Neospora caninum* is most commonly spread by dog fouling and can remain in grass, water and contaminated animal feed for several months, representing a serious threat to livestock. can cause abortions in cattle and is thought to be responsible for the highest percentage of all cattle abortions reported in the UK. Neospora eggs are produced by infected dogs and excreted in their faeces. Cattle will then become infected if they eat food, i.e. grass, or drink water contaminated with the eggs.

Sarcocystosis is also caused by parasites, which can use dogs as intermediate hosts, and similarly the eggs are produced and excreted in faeces.

In terms of both these diseases, faeces from infected dogs can contaminate pasture and animal feed, water or bedding. There is currently no licensed vaccine or drugs available for these diseases.

Yersiniosis is another bacterial disease that can cause intestinal infections in people. Yersinia can multiply in cold water, unlike many other bacteria and may be found in elevated numbers in ponds, puddles and lakes as they thaw in the spring.

Pathways of contamination

We have all been made aware of the spread of viral infections via aerosols in the pandemic, but the spread of these listed infections from dog faeces is a little more complex.

Firstly there is direct contact with your shoes or clothes, or even accidentally with your hands (e.g. picking up a dog's ball from long grass which is obscuring the faeces!). The coliforms within the tread of your shoes will transmit to your car, floors, carpets, shoe stores, etc. The infectivity does not die off after a few hours, but may have potential to infect for many weeks.

Secondary contamination by children playing on floors/carpets, in the car, stroking pets or pets walking the infections around the house mean the bugs can transfer to people's hands/under fingernails and then inadvertently into their mouth/eyes or even genito-urinary area when they go to the toilet. Also pets may have rolled in faeces and have bugs in their coats, which transfer when being stroked or patted.

One more recognised route of infection is from football, rugby, cricket and other sports pitches. A player landing a grazed leg or arm in infected mud has resulted in some horrendous long term infections that lead to long term pain, and in rare cases amputation. This is also true for people who fall off bikes or horses and graze themselves on faeces infected footpaths and verges.

However, direct transfer of one of these infections from pets to humans is extremely unlikely. The potential risks of infection from contact with dog faeces are directly proportional to the amount faeces in our local environment – that's something we can control as citizens!

Some previously tried solutions by others;

1. Train your dog to do his **business at home** - set aside a designated area of your garden, using a command word before he goes to the toilet and praising him when he finishes. More information can be obtained from the RSPCA.
2. If your dog uses a public area or pavement, always '**scoop the poop**' using either a designated poop scoop, nappy sack or plastic bag - turning it inside out to seal the faeces inside. Either dispose of in a designated dog bin provided by the council, or if unavailable, double wrap and dispose of as normal. If you don't clean up after your dog, you're risking a £25 on the spot fine or £1,000 maximum penalty if you have to appear in court.
3. **Worm your dog** at least every 6 months with tablets obtainable from the vet, pet shop or larger branches of supermarkets. Some district councils will also supply worming tablets at a reduced rate. Puppies and pregnant bitches should be wormed more frequently - ask your vet for advice. Remember dogs with roundworm infections may not show any symptoms, so your dog should be wormed whether he looks healthy or not.
4. Keep Britain Tidy has campaigned very successfully on the issue of dog fouling. In 2010, their high-profile '**There's no such thing as the dog poo fairy**' led to massive reductions in dog fouling in participating council areas. Some communities saw a decrease of up to 90%, while on average a reduction of 43% was recorded across the 94 participating local authorities.
5. There is no risk to your health if you clean up after your dog immediately. Eggs from Toxocara worm take 2-3 weeks to become infectious, and land will only become contaminated after this time. If dog owners immediately cleaned up after their dogs the threat of Toxocariasis would be virtually eradicated.

6. Most dog owners are responsible and clear up all fresh dog poop – the few that aren't responsible owners can be challenged, or even photographed/videoed and possibly prosecuted exceptionally.
7. Train all dog-owners to **wash their hands thoroughly** (as people were taught in the pandemic) after a dog-walk where they have thrown a ball or stick or patted their dogs.

Some "Doggy Dos"!

- Do you want to protect the wildlife in our village and our AONB?
- Do you care for animals – dogs, horses, cattle and other wildlife?
- Do you want your dog to be healthy and well?
- Do clear up after you dog?
- Do regularly worm your dog?

Ideas for Longdon Parish "Scoop the Poop" campaign.

1. We should use humour to support the real facts around the harm of dog faeces. (e.g. 'There's no such thing as the dog poo fairy', "Doggy Do's and Don'ts", "We've had enough of this crap!" etc.)
2. We should appeal to people by focussing on the harm to vulnerable people including their children, elderly or infirm relatives, and pets and then the environment.
3. Use the "yuck!" factor as well!
4. We should help them to decrease the risk to themselves and others around (i) regular worming, (ii) getting their dogs to poop on their own premises and (iii) wash their hands after dog walks.
5. Informing them of the real facts and risks about the potential harm to their families and pets may alter behaviour.
6. The heavy handed "reporting and fining" approach should be a last resort from particularly unreasonable citizens, but reason and sense of community approaches should come first.
7. We should add a few more strategically located "poop bins" (e.g. Car parking spots, gates near North Lodge, at the end s of well-used dog-walk paths, etc.)_