

Canine Faeces report for Rams RFC

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1. Canine/Dog Faeces

- Canine faecal material is a major potential source of zoonotic pathogens*,
(**pathogens are foreign bodies that causes disease*) and humans may be at risk of acquiring these pathogens; the general public may be exposed if dog faeces is left on the pavements, parks and sports grounds (Westgarth, 2008).
- Rugby players are regularly in contact with the ground, therefore they are at a higher risk of coming into direct contact with dog faeces on pitches.
- Dog faeces attract flies and rats which may transfer organisms to humans (Sampson, 1984).
- People are largely unaware of the dangers involved with dog faeces, and therefore it is advised to use education as means of tackling the problem (Westgarth, 2008).
- Dog waste is associated with more than 60 zoonotic diseases (Rinaldi et al., 2006).
- Irresponsibility on the part of dog owners in relation to disposal of dog waste represents a source of potential pathogens in public areas such as playing pitches (Schantz, 1994; Rubel and Wisnivesky, 2005).
- Children may consume contaminated soil or grass by accident or touch their mouths or eyes with hands contaminated with dog faeces or handle bags left hanging outdoors; people using hand activated wheelchairs and active sports players may also be at risk (Jackson, 1995). Pathogens present in dried dog faeces can be scattered by the wind; then carried into workplaces on soiled shoes (Attia Jaber, 2012).
- Dog faeces represent a possible source for spreading pathogenic bacteria such as E. coli and Salmonella enterica bacteria which represent a human health risk.
- Dog faeces have also been shown to produce gasses which are injurious to plant germination and/or growth and are also likely to be directly inhibitory to plant (grass) growth (Attia Jaber, 2012).

2. Reported Dog Faeces Incidents in Rugby

Due to the risk of rugby players having exposed wounds through injury, there is risk of open wounds becoming contaminated with dog faeces, which may result in serious infection.

Rugby players also have more direct contact with the ground compared to other outdoor sports.

See the links below for cases of injury/near miss through dog faeces on pitches:

<http://www.mirror.co.uk/news/uk-news/rugby-player-loses-foot-after-6264505>

<http://www.walesonline.co.uk/news/wales-news/schoolgirl-left-dog-poo-gum-12240396>

Government report on zoonoses incidents, can be reviewed here:

<https://www.gov.uk/government/publications/zoonoses-uk-annual-reports>

3. Health Risks of Dog Faeces

Dog faeces present two major problems:

1. Canine faeces spread microbial and parasitic diseases.
2. Canine faeces smell offensive and have the potential to dirty clothing/shoes.

3.1 Parasites and diseases associated with Dog faeces

Toxocariasis is the main medical problem relating to dog faeces. It is an infection of the round worm *Toxocara canis* (Gillespie, 1988) and is a zoonotic disease spread via dog faeces (Karadam et al., 2008); young people are particularly at risk due to their weaker immune systems and because of their likely increased exposure by ingesting the eggs (Thompson et al., 1986). Puppies can pass up to 15,000 eggs per gram of faeces. Up to 700 eggs a day are excreted when the dog defecates; *they can survive in soil for as long as three years*. With warm weather the eggs develop into an embryo state, containing larvae which are infective to dogs and people. The larvae attempt to migrate throughout the human body like they would do in a dog's, but the human body regards them as foreign and reacts leading to tissue damage (Overgaauw and

Nederland, 1997). Two types of toxocariasis exist, namely: visceral larva migrans (VLM) and ocular larva migrans (OLM). In VLM, the larvae reach the liver, causing inflammation and symptoms including abdominal pain and pyrexia; most people, however, recover spontaneously. OLM occurs when a migrating larva reaches the eye where it causes the formation of a granuloma on the retina which leads to significant visual impairment and in severe cases, **blindness; around 12 new cases of OLM are diagnosed annually in the UK** (Despommier, 2003).

Further information see NHS website

<http://www.nhs.uk/conditions/Toxocariasis/Pages/Introduction.aspx>

3.2 Toxoplasma contamination of dog faeces

Cats are the main hosts of Toxoplasma, but the parasite is also found in dogs (Barutzki and Schaper, 2003). Pets become infected by consuming rodents and birds, which are intermediate hosts that contain cysts that help to continue the chronic infection. Dogs are considered a factor in the spread of toxoplasmosis (Frenkel, 1996). Eating or rolling in cat faeces, dogs most likely play an important role in the mechanical transmission of Toxoplasma oocysts (Lindsay et al., 1997) and it is likely that dogs excrete oocysts near human habitats, promoting Toxoplasma transmission to humans. Toxoplasma poses risk to pregnant woman and those with compromised immunity.

Further information see NHS website

[Toxoplasmosis - NHS \(www.nhs.uk\)](http://www.nhs.uk)

<https://www.gov.uk/government/publications/zoonoses-uk-annual-reports>

4. References

Full reference list available on request.