

## What could be done to improve control?

Evidence from around the world suggests that effective bTB control only occurs when it is applied to all affected populations. A useful analogy is the 'Three-Legged Stool'.

### TB Control



If one leg is missing, the stool falls over and control fails.

Movement control  
Reservoir control  
Testing livestock

#### Movement control

- Strengthen movement controls on livestock.
- Reducing infection between farms.

#### Reservoir control

- Targeted humane culling and vaccination of badgers.
- Reducing infection between farms.

#### Testing livestock

- Regular, efficient testing of cattle and other species.
- Removing infected animals.

Diseased animals need to be removed from the environment to help control this disease in both badgers and cattle. Other countries with wildlife reservoirs have only succeeded in reducing bTB levels by tackling the wildlife source.

## What about vaccination?

The only vaccine for bTB is the BCG, which has been used since the 1930s and many people will have had this at school. It works by making a human (or animal) less infectious, and less likely to spread disease, unlike other vaccines which actually prevent disease becoming established. Badger vaccination has not been shown to reduce infection in cattle. Under World Trade Rules, cattle cannot be vaccinated for bTB if they are to be traded.

## References and Links

1. DEFRA TB Strategy document April 2014
2. Gallagher, J., et al (1976). Tuberculosis in wild badgers (*Meles meles*) in Gloucestershire: pathology. *Veterinary Record*, 98(1), 9–14.
3. [www.bovinetb.info/docs/krebs.pdf](http://www.bovinetb.info/docs/krebs.pdf)
4. Godfray, H. et al (2013). A restatement of the natural science evidence base relevant to the control of bovine tuberculosis in Great Britain??
5. Gunn-Moore, D. (2014). Feline tuberculosis caused by *Mycobacterium bovis*. *The Veterinary Record*, 174(13)

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# TUBERCULOSIS

## A concern for all animals

Including domestic pets



# What is bovine tuberculosis (bTB)?

**bTB** is caused by *Mycobacterium bovis*, a bacteria that can infect many different animals. It is spread either by inhaling or consuming the bacteria and is usually associated with animals living in enclosed spaces. It can also be spread through contaminated surfaces such as feed troughs and pasture. The disease causes weight loss, coughing, fever, lethargy and ultimately, death.

## bTB in Britain

In the early 1900's, many people caught bTB by drinking infected cow's milk. With the introduction of heat treatment of milk (pasteurisation) in the 1930s, better meat inspection, and the introduction of cattle bTB testing, cases of bTB in people are now rare. Today, most human cases of tuberculosis are due to a related bacteria, *Mycobacterium tuberculosis*, contracted directly from other people.

## Why should we control bTB?

bTB is a health and welfare issue for all animals. There is no treatment for animals and animals cannot self-cure.

In 2014, over 30,000 cattle were slaughtered after they tested positive for bTB. This is a huge burden on the farmer due to both the loss of infected animals and the problems due to movement restrictions. bTB control has also cost the UK taxpayer £500m in the last decade.<sup>1</sup>

## What is the connection between bTB in cattle and wildlife?

The test and cull policy in the UK reduced bTB in cattle to very low levels by the 1970s. However, over the last 30 years there has been a steady increase in cases of bTB.

In 1971, bTB was found in badgers in Gloucestershire<sup>2</sup> and in 1997, the Krebs report to the UK Government concluded that badgers were a significant reservoir host of bTB.<sup>3</sup> The level of bTB in badgers is around 15% in the bTB endemic areas of Britain (south and west) but can be higher.<sup>4</sup>

Other wildlife, such as deer, are affected, but badgers are a true reservoir and act as a source of bTB for cattle in a similar way that cattle used to be a source of bTB for people.



## Can bTB infect my animals?

There have been cases of bTB in pigs, alpacas, llamas, goats and sheep. More recently, cases have been seen in cats. It needs to be emphasised that infection of dogs and cats is very rare, but the infection of pet livestock is becoming more common. The recent cases in cats are more of a concern as the infection came from contact with badgers.<sup>5</sup> The only way to reduce infection to these animals is to reduce infection in the main reservoir hosts - cattle and badgers.

## Current UK bTB control measures

The current control measures in the UK involve the regular testing of cattle and the slaughter of infected animals. In addition, cattle cannot move off an affected farm until further tests on the whole herd are negative. Badger culling and badger vaccination are not, as yet, part of the control measures.

