

Topic	Pathogens and disease	Level	GCSE (or any other course for students aged 11-16)
Outcomes	To model the spread of an infection through direct contact		

Modelling the spread of an infection

Equipment needed for a class of 30 students:

1. 29 test tubes 1/3 full with milk
2. One test tube containing 1/3 milk **and starch solution**
3. One plastic pipette in each test tube
4. 10 bottles of iodine solution with droppers



How it works:

The test tube with starch represents the infected individual. When students begin the activity each is given a test tube. The test tube represents bodily fluids. Students are then asked to move around the classroom and 'exchange' a small amount of fluid with another student. It is important that nobody in the class knows who the 'infected' individual is. After 5 exchanges the class is stopped and it's time to get 'tested'.

Students place a small amount of iodine into their test tube and then record whether they have been 'infected'. Infected samples should turn blue/black due to the presence of starch.

This can then lead to a discussion about:

- (i) transmission – how?
- (ii) transmission – what?
- (iii) speed of transmission
- (iv) how can we stop infection?
- (v) can we work out who the source of the infection was?