



Things to make and do

# Grow mycelium

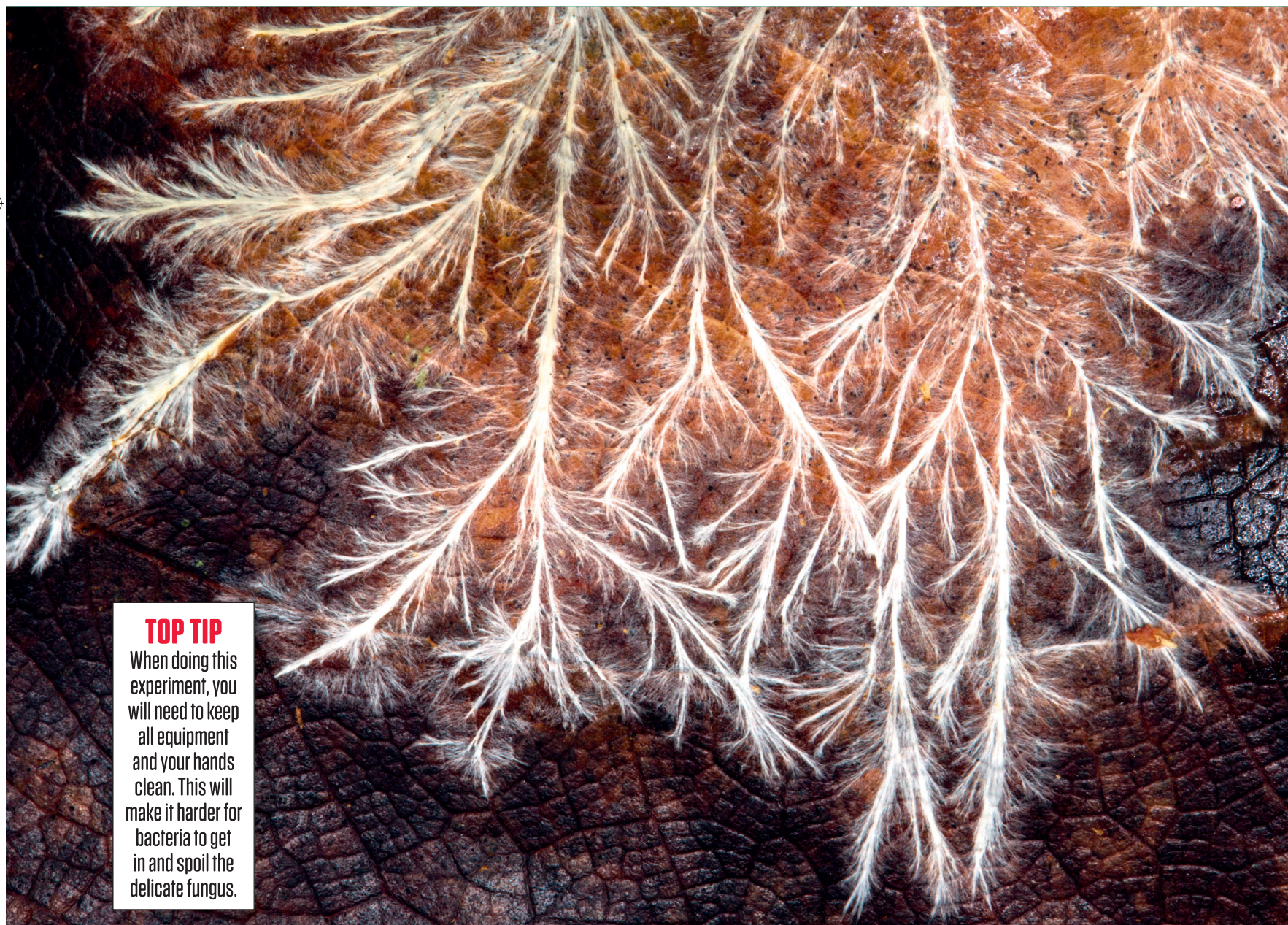
## WARNING!

Do not eat or inhale your mycelium at any stage of the experiment.

### What you need

- Clean glass jar
- Microwave-safe lunchbox with a lid
- Corrugated cardboard (an old cardboard box is ideal)
- Pen
- Scissors
- Jug of water
- Microwave
- 3 large oyster mushrooms
- Tissue paper
- Elastic band

Mycelium is the main body of a fungus. Try growing it yourself and watch these tiny, incredible fibres spread rapidly.



### TOP TIP

When doing this experiment, you will need to keep all equipment and your hands clean. This will make it harder for bacteria to get in and spoil the delicate fungus.

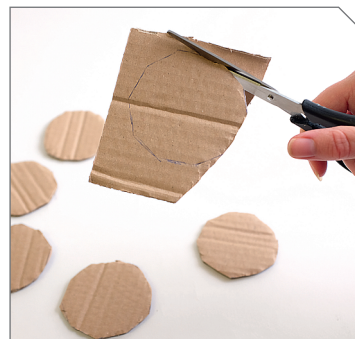




**1** Clean the jar, lunchbox and your hands thoroughly with soap and hot water, and dry with a clean towel.



**2** Place the glass jar on some cardboard and draw around the base of the jar six times using a pen.



**3** Cut out the six circles. These will provide a surface on which the mycelium can grow.



**4** Place the six cardboard circles in the microwave-safe lunchbox and cover them with water.



**5** Put the lunchbox in the microwave and cook at full power for two minutes. This will kill any bacteria. Leave to cool for about an hour.



**6** Once totally cool, lift the cardboard circles out of the water and squeeze gently to remove some of the liquid. Place on the lunchbox lid.



**7** Now, cut all the mushrooms into little pieces. Pop the first cardboard circle into the glass jar and place a few pieces of mushroom on top.



**8** Next, pop the second cardboard circle into the glass jar and place a few pieces of mushroom on top of that one, too.



**9** Repeat this process until you have placed your last cardboard circle in the jar. Wash your hands afterwards.



**10** Cover the top of the jar with tissue paper and fix with an elastic band. The tissue allows oxygen in, so the mycelium can grow.



**11** Place the jar in a dark, dry place (such as a wardrobe) and check every few days.



**12** It should take about three days before you start to see the mycelium spreading.

## How does it work?

Mushrooms you see in the ground or on rotting wood are just a small part of a fungus. Hidden underground is a vast network of white fibres, known as hyphae, that together make up mycelium. Fungi reproduce by sending out trillions of spores from the head of the mushrooms. These spores can travel over huge distances and create new mycelium networks where they land. In this experiment, the

mushrooms that you placed in between the layers of corrugated cardboard produce spores that make new mycelium networks. The mushrooms feed on the cardboard to grow and oxygen enters through the tissue so the fungus can breathe. Everything needs to be clean because if bacteria get into the jar, they may compete with the mycelium. Turn to page 38 to find out more about the properties of fungus.



Mushrooms are like the fruit of mycelium.