



How hair-dryers work

Many people are familiar with the daily routine of washing, drying and styling their hair. Although hair will eventually dry on its own if given enough time, most people reach for a hair-dryer to speed up the process. While science may have disproven the link between wet heads and catching colds, it's still no fun to sit around with a head full of wet hair, especially in the winter.

Hair-dryers, also known as blow-dryers, were first sold in the 1920s. At first they were pretty dangerous to use – hundreds of people were electrocuted when they dropped their hair-dryer into water-filled sinks and bathtubs.

That isn't as likely today, however, because of the advent of **Ground Fault Circuit Interrupters (GFCI)**. Since 1991, all portable hair-dryers have been required by U.S. federal law to protect you

against electrocution should you accidentally drop one in water while it's plugged in. This applies whether the hair-dryer is on or off. A GFCI is the larger, polarised plug that you'll find on many consumer appliances. When they're plugged in, GFCIs monitor the amount of current that's running from one slot of a wall outlet through an electric circuit and back to the other slot. If they sense a leak in the current, they trip the circuit.

What happens to a hair-dryer if you drop it in water when it's not plugged in? You don't run the risk of electrocution, since there's no source of current, but you can certainly damage the hair-dryer if all of its components get wet. So, plugged in or not, it's a bad idea to throw it in the tub.

(Taken from <http://www.howstuffworks.com/hair-dryer.htm>)

EXERCISES

1 True or false?

- a. Science has proved the link between catching colds and having wet hair or long periods of time. T F
- b. The first hair-dryer was invented 50 years ago. T F
- c. Hundreds of people have been electrocuted using hair-dryers. T F
- d. Since 1991, all US hair-dryer must have a GFCI fitted. T F

2 Complete.

Hair-dryers are common that people have used since the Before the introduction of the, hair-dryers were pretty; many people have been electrocuted using a hair-dryer. 1991, all portable hair-dryers been required by U.S. law to protect electrocution. GFCI (Ground Fault Circuit Interrupter) is a plug that monitors the amount of that's running from one of a wall outlet an electric circuit and to the other slot, if there is a in the current, they trip the

circuit • back • dangerous • GFCI • devices • whilst • through • have • current • 1920s • since • polarised • federal • against • leak • slot

3 Match questions and answers.

QUESTIONS		ANSWERS	
A	What happens to a hair-dryer if you drop it in water when it's not plugged in?	1	A Ground Fault Circuit Interrupter; it is a device that protects people against electrocution if a hair-dryer is accidentally dropped in water.
B	What is a GFCI?	2	Once you plug your hair-dryer in, the Ground Fault Circuit Interrupter monitors the amount of current running back and forth from the wall's slot. If it senses a leak in the current, it trips the circuit.
C	How does a GFCI work?	3	As there is no source of current it is not dangerous for your own safety, but the device would get damaged.

A	B	C
---------	---------	---------