## Save Money on Printer Ink

## Tips to Help Lower the Cost of the Most Expensive Liquid You Ever Buy

This article shows you how to:

- Make wise choices when buying ink or a new printer
- Avoid wasting ink (and money!) with simple tricks
- Sort out the myths and mysteries of printer ink

You might have been amazed at how cheaply you could buy a new printer: as little as $£ 25$ would still leave you change for a cup of tea. But before long you'll have to replace its ink cartridges, and that experience can leave you needing a drink of something stronger: $£ 10$ for a mere 3 ml of printer ink, handling about 175
 pages. So, how can you reduce the cost of using your inkjet printer? Read on to find all the answers.

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## Should I Switch Off My Printer Between Uses?

More expensive than vintage champagne!

Perhaps you've never thought about it in quite this way before, but printer ink is likely to be the most expensive liquid you've ever bought. Take the cartridge I mentioned on the previous page, costing $£ 10$ for 3 ml of ink. That's well over $£ 3000$ per litre - the sort of money that could buy you 20 litres of fine vintage champagne!

You probably don't feel you're living the high life each time you switch on your printer, so let's see what we can do to reduce the amount of ink you use. And switching on your printer is a good place to start...

Do you switch off your printer?

Switching it back on could waste ink!

Electronic devices that are switched off don't use any electricity, so it might seem obvious that switching off your printer between uses will save you money. In fact, though, the reverse might be true, because you have to weigh up the cost of the electricity against the cost of wasted ink.

Each time you switch on your printer, it quite likely carries out a cleaning cycle which uses up some of the ink from each of its cartridges. A recent test by the consumer watchdog, Which?, illustrated how expensive it can be to keep your printer switched off. The test used an HP Officejet printer to print 50 pages. Printed in one continuous process, the cost of the ink used was $£ 2.50$; printing the same pages over the course of several weeks with the printer switched on throughout that period, the ink cost was a little under $£ 6$. But printing those pages over several weeks with the printer switched off in between printing sessions used over $£ 17$ of ink!

The cost of wasted electricity is far less

Leaving this printer switched on permanently (in which case it would enter its 'sleep' mode when not in active use) would cost roughly $£ 2.50$ per year in electricity, so it's clearly a great deal cheaper to pay for that electricity than to pay for all the wasted ink!

Not all printers behave in the same way, so pay attention to what yours does when you switch it on. If it seems to be running through a cleaning cycle every time you switch it on, it could well be cheaper to leave it switched on permanently and 'sleeping' between uses!

## Are Compatible or Refilled Cartridges Worth Buying?

The average price of an inkjet printer is about $£ 65$ (although you can find one for as little as $£ 23$ ), while the average price of a set of original ink cartridges is a little over $£ 25$ - more than a third of the printer's cost!

Printer manufacturers are happy to sell us printers at giveaway prices because they expect to make their money from selling us their own highly-priced ink for years to come. One way to avoid these extortionate prices can be to use 'compatible' or refilled cartridges:
Compatible cartridges: these are cartridges made by third-party manufacturers, designed to be identical (more or less) to original cartridges but sold much more cheaply. The catch is that some printer manufacturers add microchips to their own cartridges and design their printers to check for the existence of the chips: if you insert a chipless compatible cartridge, the printer will refuse to use it. (It may be possible to remove the microchip from an empty branded cartridge and then affix it to a compatible cartridge, but it's a job that requires some skill!) You can find compatible cartridges at



Ink costs outweigh that of the printer

The price of ink subsidises cheap printers

A 'compatible' cartridge could be half the price

Refilled cartridges could save you well over 50\%


DIY kits to refill cartridges yourself
supermarkets, PC and office-supply shops, and almost anywhere else that sells printer ink.

Refilled cartridges: recycling companies collect empty original cartridges, refill them with their own ink and resell them. The result is that you still have an original, branded cartridge (with a microchip if appropriate), so your printer should be happy to use it, and it could cost less than half the price of a new original cartridge. The catch here is that a cartridge may have been refilled and reused several times, and thus may not work as well as a new one. Good places to look for refilled cartridges are www.viking-direct.co.uk and www.cartridgeworld.co.uk.

Another risk from compatible or refilled cartridges is leakage. This can be due to wear in the case of refilled cartridges or poor quality in the case of compatibles. I lost a nice Epson printer (and an equally nice little table) using a compatible cartridge that sprang a leak.

Another way to save money is to refill branded cartridges yourself. It's a job that requires some care and patience (and it can still be a bit messy!), but it could save you a small fortune. As an example, Tesco offers a refill kit for $£ 4.00$ which works with most colour ink cartridges from most major printer brands and can refill a cartridge up to six times. You can find out more about this kit at www.tinyurl.com/lbqwtjw.

## Are 'XL' Cartridges a Worthwhile Buy?

'XL' cartridges contain more ink...

If you shop around for original-brand cartridges, you'll find that some are marked as 'XL' (which, as with clothing, means 'extra large'). The cartridge itself is still the same size of course - otherwise it wouldn't fit in your printer - but it contains more ink. Is it worth buying these more-expensive 'XL' cartridges?

You might have spotted something odd about them already. If the cartridge itself is still the same size, but it contains more ink, doesn't that mean that an ordinary, non-XL cartridge contains less ink?
Yes it does, and it's another con by printer manufacturers. Over the years, the amount of ink contained in those cartridges decreased by up to two-thirds while the price stayed the same. This gave manufacturers a new way to squeeze money from us: they started topping up some of these cartridges again, adding an 'XL' tag to them and selling them at almost double the price of an ordinary cartridge. Even so, an 'XL' cartridge might well contain less ink than an ordinary cartridge did a few years ago.
However, if you want to stick with branded cartridges, there's no doubt that these 'XL' cartridges are better value. To give you an example, a standard Epson black cartridge (the T1801) contains 5.2 ml of ink and costs around $£ 11$, whereas the 'XL' version of the same cartridge (the T1811) contains 11.5 ml and costs $£ 17$ : paying just $50 \%$ extra gets you more than twice as much ink.

There's just one caveat to buying 'XL' cartridges. If you only use your printer occasionally - perhaps once a month or less - there's a chance of the ink in the cartridge drying up. That brings the risk that you might have to discard a cartridge that's only partly used, and with an 'XL' cartridge that means more ink - and thus more money - is being wasted.

## Does My Printer's Location Affect Ink Consumption?

Make sure you keep your printer as cool as possible, away from radiators and direct sunlight. Even though
... because
ordinary cartridges contain much less!

But 'XL' cartridges
are more
economical


Always keep cartridges cool
the ink is enclosed in cartridges, heat has the effect of causing the ink to dry up and run out faster.

The same rule applies to your replacement ink cartridges. These are always best kept somewhere cool, dark and dry rather than in a warm, sunny room.

Check the instructions on the packaging of your ink cartridges for useful advice. Some manufacturers recommend that cartridges are stored standing upright - the way you see them on the shelves in the shop - and most suggest that you keep them unopened in their airtight packaging until you need to use them.

## Is it Worth Buying Printer Ink in Bulk?

Multi-packs at lower prices

Will you use them before they expire?

When you're shopping for ink, you might well be tempted by the discounts available for buying cartridges in packs of three or five. Be wary: unless you do a fair amount of printing, these multi-packs might be a false economy!
Even when cartridges are stored correctly in their unopened packaging, the ink ages. If you leave a cartridge hanging around for too long, it might not be useable - or at least might not produce the sort of quality you'd hope for. Most manufacturers print a use-by date somewhere on the packaging, although it's not always easy to find or read.


The use-by date is generally a year or two into the future, so there's no immediate rush to start using a cartridge you've just bought, but, if you've bought a pack of five, can you be sure of using them all before that date?

If you tend to buy ink whenever you see it offered at a good price, it's a good idea to write on the packaging the date on which you bought it, so that you can be sure of using the oldest cartridges first. This obviously goes for compatibles and refills as well as new cartridges.

If you have a Hewlett-Packard (HP) printer, there's another reason to take note of the date shown on the packaging of HP-branded cartridges: it may be an electronically-enforced expiry date!

Some HP cartridges contain a microchip in which the expiry date is stored. With some HP printers, you can ignore the expiry date and continue printing, but with others the printer won't use a cartridge after its expiry date passes - even if you've only just started using that cartridge! Recently, HP has been edging away from this practice, but if your HP printer uses a cartridge listed in either of the first two columns below, be sure to use it before its expiry date.


Some HP printers enforce the expiry date!

|  | Ink expires, but you can override* |  | Ink expires, no override** |  | Ink does not expire |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Supplies |  | HP 02 <br> HP 18 <br> HP 38 <br> HP 70 <br> HP 88 <br> HP 177 <br> HP 363 <br> HP 777 <br> HP 801 |  | HP 10 <br> HP 11 <br> HP 12 <br> HP 13 <br> HP 14 |  | All other HP supplies. |

## Be Careful when Choosing a New Printer!

You're locked into buying pricey ink

Avoid twocartridge printers

A separate cartridge for each colour works out cheaper

Always compare ink costs of different printers!

One tip you've probably picked up from the preceding pages is that the amount you spend on ink can be dictated as much by whose printer you buy as by the quantity of printing you do!
If you're shopping for a new printer and base your decision on the price of the printer alone, you could be in for a shock when you discover what it really costs. A common reason why a new printer now costs as little as $£ 23$ is that you're forced to use expensive microchipped ink cartridges from the same manufacturer ever after.

When shopping for a colour inkjet printer, it pays to avoid two-cartridge models - those which use one cartridge for black ink and a second cartridge containing the three colours. That colour cartridge might contain as little as 2 ml of each colour, so, despite its high price, it won't last very long.

Even worse, when the first of those colours runs out, the cartridge usually has to be replaced, wasting the ink that remains in the other two colour chambers.

A far better choice is to choose a printer that uses four cartridges, one for each colour. While that means you'll be paying for four cartridges rather than two, you'll be able to use all the ink you buy, reducing the amount you waste and ultimately saving money.
Whatever you do, when you think you've found the ideal printer at the right price, be sure to check the cost of its ink before buying (and, if you have a shortlist of printers, compare those prices to see which works out best in the long-term).

If you don't need to print photos - and especially if you don't need to print in colour - a laser printer could be far more cost-effective than an inkjet. Laser
printers use 'toner' (a powdery substance) rather than ink, so it won't dry out or clog over time, and it's a good deal cheaper than ink. As an example, a Brother DCP-L2500D laser printer costs about f75, and its black toner cartridges - which are good for about 1200 pages each - come in at about $£ 24$.

## Can I Recover a Dried-up Ink Cartridge?

If you haven't used your printer for a long time, you might find that the print head has clogged and dried out, with the result that printed pages come out blank or with one or more colours missing. If that happens, follow these steps to clean the print head:

1. Print a test page to find out which colours you've lost. You could quickly put together a test page containing a line of text in each of the four colours, black, red (magenta), yellow and blue (cyan).
2. Is the print head incorporated into the ink cartridge itself (as with cartridges from HP and Lexmark, for example)? If so, remove the cartridges that are no longer working.

If the print head is part of the printer (as it is with Epson and Canon printers, among others), remove all the ink cartridges and put them in a plastic bag, standing them upright, and then remove the print head.

If you're not sure how to do any of this, be sure to check your printer's manual first! It's a good idea also to wear disposable latex gloves to keep any stray ink off your fingers.
3. Put some distilled water in a shallow dish and place the cartridge(s) or print head into the water so that the nozzle can soak. Only use enough water to

Blank pages or a colour missing?


Remove the cartridge...
... or print head


Soak nozzle in distilled water
cover the nozzle - half an inch should be enough keeping the metal contacts and other parts of the cartridge or print head dry.

It's important to use distilled water for this. Using ordinary tap water, you could find that this process simply deposits lime in the nozzles and clogs them even more.
4. Leave the cartridge to soak for two or three hours. Every half-hour or so, lift the cartridge out of the water and give it a gentle shake from side to side to help clear the blockage, then place it back in the water.

Leave to dry on paper towel
5. Dry the nozzle gently with a lint-free cloth, then put it aside on some folded paper towel to dry in the air for another few hours. Finally, put the print head and/or cartridges back into the printer, and you should find everything now works properly.

## Is there Money in Empty Ink Cartridges?

Recycling companies will buy your used cartridges

There certainly is! As I mentioned on page 4, there's an industry in selling refilled cartridges, and companies will pay you for your used cartridges which they can fill and resell. The amount of cash on offer isn't huge (generally around $£ 1$ per cartridge), but it's certainly better than sending them off to landfill!
Here are some links to cartridge-recycling services online:
www.therecyclingfactory.com/sell-ink-cartridges
www.cartridgeworld.co.uk/empties
www.cashforcartridges.co.uk

Or recycle them at
Tesco stores

Alternatively, if you're not too concerned about being paid for your used cartridges, you'll find recycling points inside many Tesco stores with receptacles for old ink cartridges.

