**<http://www.adorama.com/alc/article/Laser-vs-Inkjet-Printer-Which-Is-Right-for-You>**

**Laser vs. Inkjet Printer: Which Is Right for You?**

Choose the right printer for your home

By Erica Archer
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Laser printers have long been dominant in enterprise environments but not the go-to pick for home users with color printing needs.

Now that many color laser printers are priced under $500, you can choose between inkjet or laser printers without breaking the bank. But bear in mind that inkjets and lasers are suited for different purposes because of the way they work.

The difference comes in the way the technologies adhere ink to the page. Inkjets spray ink onto the page through tiny nozzles, creating microscopic dots. Uncoated paper—everyday white paper—absorbs ink, which causes bleeding, blurring the edges of everyday text. Specialized photo paper can prevent the bleeds and control drying times, allowing for professional-quality color prints. However, everyday text will not look as sharp on an inkjet as on a laser because of the bleed factor.

Laser printers work by using high heat to fuse powdered ink to paper. There is no bleeding effect, because laser toner does not absorb into paper. Prints are smudge-proof, need no drying time, and rarely require specialized paper. However, the sharp, crisp edges from a laser don’t allow for the same subtle gradients of color that an inkjet can produce. Color lasers must lay down colors one at a time, and toner has a bit of opacity, unlike wet inkjet inks. Although color lasers aren’t the preferred choice for maximum photo-quality prints, they can produce speedy and crisp results with solid image quality and perfect text.

If it seems both types have their advantages, you’re right. To make the best choice, first consider your printing needs, and then dig into the tech specs.

**What Will You Be Printing?**

The primary factor in choosing a printer is what you’ll be printing on a regular basis. If you’ll be printing a lot of business documents, consider a crisp and speedy monochrome laser printer like the **Brother HL-5340D High-Speed Monochrome Laser** (right). Monochrome laser printers’ sharp text and quick output make them ideal for high-volume document printing when readability is a priority. And because they’re an older technology, they’re cheaper than ever.

If you’ll be printing a wide mix of images and documents in your home or small business, consider a general-purpose inkjet printer. Even the cheapest inkjets can now produce photo-quality color. Not surprisingly, inkjet models labeled for office use, like the [**HP OfficeJet Pro 8000**](http://www.adorama.com/IHPOJP8000W.html) (below), emphasize speedy output and cost savings, but they can still turn out quality graphics.

High-volume document printing, infrequent color needs, and the need for speed: If that describes you, a color laser printer makes a good choice. A small office without a need for photo-style prints can produce office presentation packets and newsletters that look great and print quickly. **The Konica Minolta 4650EN Magicolor** gets a solid rating from CNET.

If photos are your focus and you don’t need to print larger documents, consider a specialized inkjet photo printer. Inkjet photo printers typically pack ultra-high resolution into a small package and often allow you to plug your camera directly into them, bypassing your computer entirely. The **Epson PM 290 PictureMate Zoom** (left) gets rave reviews from Macworld.

**Out of Pocket Now—and Later**

When purchasing a printer, consider initial cost versus long-term cost. Although laser printers are initially more expensive, they tend to need ink replacement less often than inkjets do. On average, black-and-white laser printers require infrequent replacement of more expensive ink, and inkjets need frequent infusions of cheaper ink. Color lasers may be the most expensive option for ink, despite the toner cartridge’s longevity, according to Consumer Reports. Factory specs give a printer’s rate of ink consumption, and you can double-check that number against online owner reviews.

Besides the cost of consumables, be prepared for the worst—a breakdown. Laser printers have more moving parts and greater complexity. But because they’re primarily aimed at office users, repair options and warranties tend to be strong. On the flipside, inkjet printers have fewer moving parts. But when they break, it’s usually—though not always—cheaper to replace them than to repair them. Keep those factors in mind when considering the initial cost of a printer.

**Stop the Presses**

Do you prefer to print on photo-sized paper or 8.5” × 11” paper? Inkjets and laser printers both have unique paper requirements. Because of the high heat used in fusing laser toner with the page, laser toner will not bond with photo printing paper, and small stock tends to curve with the fusing rollers.

Many laser printers offer multiple paper size capability. But if you need wide-ranging size capabilities, inkjets are more flexible. If you want to feed in photo-sized paper and collect finished professional-quality prints from the tray, choose either an inkjet with borderless printing capability or a designated photo printer. If you have limited need for unusual paper sizes, a laser printer could work for you.

**Marketing Markups**

Printer specifications usually include maximum dots per inch (dpi). This measurement is shown as maximum horizontal resolution by max vertical resolution, as in 1200 × 1200 dpi. Generally speaking, printers with higher dpi numbers can produce higher-quality prints. The minimum dpi guidelines for different applications have increased as printer capabilities improve. A dpi of 300 will suffice for good quality, while 600 dpi might be used for presentations. Photo-quality image resolution starts at 1200 dpi, and 2400 dpi is considered professional photo quality. One high-resolution option is the [**Epson Stylus Photo R1900**](http://www.adorama.com/IESSR1900.html)(below), which prints at up to 5760 × 1440 dpi.

Another number that manufacturers might inflate is print speed, which is measured in pages per minute (ppm). No two manufacturers use the same standard print procedure for measuring ppm. Some might print text on the lowest quality setting, while others might print a single small graphic. Expect to see no more than half of the manufacturers’ promised print speed, according to CNET. To speed up graphic-intensive prints, look for printers with lots of internal memory.

Ultimately, start by considering your most frequently-printed items. Don’t be distracted by the dizzying array of options—focus on cost of ownership, resolution, and print speed. Happy hunting!

http://www.pcworld.idg.com.au/article/354659/laser\_vs\_inkjet\_which\_printer\_right\_/

# Laser vs. inkjet: Which printer is right for you?

We look at the pros and cons of laser and inkjet printers

* [Campbell Simpson](http://www.pcworld.idg.com.au/author/101549167/campbell-simpson/articles) (PC World Australia (online))
* — 28 July, 2010 14:20

If you're buying a printer, either for work or for home, one of the choices you're likely to be faced is whether to get an inkjet printer or a laser printer. [Inkjet printers](http://www.goodgearguide.com.au/section/printers_scanners/inkjet_printers/) use liquid ink sprayed through microscopic nozzles onto the paper, and [laser printers](http://www.goodgearguide.com.au/section/printers_scanners/black_white_laser_printers/) use a toner cartridge (filled with fine powder) and a heated fuser.

Each technology has its own strengths and weaknesses. The two types use different approaches and each is appropriate for meeting different printing needs.

## Initial costs

Surprisingly enough, you can purchase a basic laser or inkjet printer for almost the same price. If you're looking for a budget multifunction printer -- which will include the ability to photocopy and scan images as well as print -- there's not much difference in price between inkjets like the [Canon PIXMA MX350](http://www.pcworld.idg.com.au/review/printers_scanners/canon/pixma_mx350/344829) and lasers like the [Dell 1133](http://www.pcworld.idg.com.au/review/printers_scanners/dell/1133/349108). One distinct difference between these two models, however, is that only the inkjet model can print colour pages — budget laser printers are only capable of producing black-and-white documents.

The cheapest laser printers will generally cost around $130; you can pick up inkjet printers for as little as $60-$70. However, these budget inkjet printers generally come with 'starter' cartridges, which don't have a full ink tank. This means you'll need to refill them after fewer prints.

## Ongoing costs

As you continue to use your new printer over a period of time, you'll need to keep it supplied with appropriate consumables like paper and ink or toner. The ongoing running costs of printers are generally quoted in cents per A4 page. You can calculate this by dividing the number of pages an ink or toner cartridge can produce (this figure is provided by the manufacturer) by the price of the cartridge. This doesn't include the cost of paper though (but this won't change depending on the type of printers).

Generally inkjet printers have a price per page of around 20 cents, although this includes both black and colour cartridges — if you intend to print only black, ongoing print costs are generally 7-8 cents per page. Cheap black-and-white laser printers have a price of around 6c per page on average. If you spend more on a laser printer, the cost per page generally drops quickly.

Larger laser printers have additional ongoing costs when compared to inkjets: they often require an additional fuser cartridge or the replacement of parts with a maintenance kit.

## Print speed and text print quality

When it comes to printing black and white text pages, laser printing is unbeatable. Even in low-end [cheaper monochrome laser models](http://www.pcworld.idg.com.au/review/printers_scanners/hp/laserjet_pro_m1212nf/350622) you can expect print speeds of up to 20 pages per minute. Inkjets are significantly slower, with budget printers rarely printing more than 6 pages per minute of black text.

For normal print sizes (of around 12pt and larger) text printing quality is similar between both laser and inkjet printing platforms. However, if your printing needs include printing small fonts then lasers are normally superior to inkjets, as the fusing technology better lends itself to the minute curves and dots of small text.

## Colour printing and colour print quality

If you want to print colour — whether it's a full-page colour photograph or simply a pie chart — you'll almost certainly be better off with an inkjet printer. Colour laser printers are often bulky and quite expensive and generally aren't suited to home or small office use.

Even when comparing a colour laser printer to a colour inkjet, the inkjet is likely produce better colour images. Inkjet printers are able to reproduce subtle colour gradation in images where laser printers will display banding (distinct changes in colour saturation).

## Size

Size is an important consideration for some users. If you're looking for something to fit into a small space on or underneath your desk, it's hard to go past an inkjet printer. However, if you don't need scanning or copying a single-function laser printer may be small enough to suit your needs.

## Conclusion

If you're buying based on price — and most consumers are — the choice between a laser printer and an inkjet is simple. If you can afford to pay a little more upfront and if you'll only be printing black text documents, a laser printer is a convenient solution. Inkjet printers are far more versatile, which is important for home use, but you'll pay more in ongoing running costs and will have slower print times. Choose carefully!

http://www.buzzle.com/articles/laser-printer-vs-inkjet-printer.html

**Laser Printer Vs Inkjet Printer**

By [Gray Pilgrim](http://www.buzzle.com/authors.asp?author=29994)

The laser printer vs inkjet printer comparison here, discusses the pros and cons of both the technologies. If you are in a conundrum about whether to opt for a laser printer or an inkjet printer, this article will certainly help you out. Read and decide which one to opt for, according to your requirement.

A printer is the need of the day for any individual or business. Right from printing documents to color photos, printer technology, which predates even modern computers, has evolved to serve multiple purposes. Laser printers and inkjet printers are both efficient printing technologies, developed independently. This article is a laser printer vs inkjet printer comparison which will aid to you to make an intelligent choice, for a printer, which is well suited to your needs. When buying any product, it's prudent to know about all the choices you have. That way, you can get the best choice of features you want in the product, in this case [printers](http://www.buzzle.com/articles/printers/), at a reasonable price.

**Laser Printer vs Inkjet Printer Comparison**
I have personally used both types of printers and found them both handy for different purposes. The laser printer vs inkjet printer comparison here discusses some strong and subtle points of difference between the two types of printers. So, let us begin the comparison with a bit of history.

**Laser Printer and Inkjet Printer: History**
Remington Rand was the first person to develop a modern printer for the Univac Computer in 1953. Contrary to popular belief, laser printer technology predates the inkjet one. [Laser printers](http://www.buzzle.com/articles/laser-printers/) made their market debut in 1976, courtesy IBM and were invented five years earlier, by a scientist named Gary Starkweather in 1971, who worked at the company, Xerox. They have been around since then. With improvements in technology, laser printers are now affordable and more compact, which was not the case earlier.

If the credit for introducing laser printer technology to the world, goes to IBM, the inkjet printers technology owes its development to many companies like Canon, HP and Epson. These were first introduced in the market in 1979 and are the popular workhorse printers, used widely around the world.

**Laser Printer vs Inkjet Printer: Technology Difference**
The major point of difference between laser and inkjet printers is of course, their technology. Let us see how exactly they differ in printing technique.

The printing technology of the laser printer is really ingenious and begins with an inbuilt laser beam projecting an image of the digital copy of the printed page onto a selenium coated, charged rotating drum. The laser light maps the 'negative' image of the document to be printed, onto the charged drum by the principle of photoconductivity. The selenium coating becomes photoconductive, that is, it loses charge, in those regions, which are not to be printed! Then the drum rolls and picks up dry ink particles, only from those regions which are still charged. Then the drum imprints ink onto paper, by heat and direct contact and your printed paper is ready! For more on this, read, [what is a laser printer](http://www.buzzle.com/articles/what-is-a-laser-printer.html)?

Now, let us see how the inkjet printer technology works. Most inkjet printers use a piezoelectric material which has an ink filled cartridge behind the spraying nozzles. When an electric voltage is applied to that piezoelectric material, it vibrates, changing shape or size. This generates a pressure pulse in the ink fluid filled chamber, which makes the nozzle spurt out droplets of ink. That is why it's named the 'inkjet', as it prints with jets of ink produced by voltage pulses.

**Laser Printer vs Inkjet Printer: Printing Speed Comparison**
The laser printers are substantially faster in printing pages, than the inkjet printer. The reason of course is the difference in technology that drives the two printers. To a laser printer, it does not matter whether a text or an image is being printed, as its speed of printing stays the same in both cases. Whereas, the inkjet has to spray ink for each pixel of the image. So, its speed slows down with textual or image complexity.

**Laser Printer vs Inkjet Printer: Cartridge**
The laser printer uses a large single cartridge of toner as its ink, while the inkjet printer needs multiple cartridges of colored ink. These [inkjet cartridges](http://www.buzzle.com/articles/inkjet-cartridges/) generally run out faster than the toner cartridges and therefore, need to be replaced often by large volume users. Other than comparison of laser and inkjet printers, you must make a comparison of all the cartridge options available too.

**Laser Printer vs Inkjet Printer: Size**
Laser printers and especially laser color printers are huge compared to inkjet printers, but they are certainly worth the space! The large size of laser printers is attributed to the space needed by toner cartridges. Laser printers can weigh a hefty 40 pounds whereas the heavyweight among inkjet printers can weigh up to 11 pounds.

**Laser Printer vs Inkjet Printer: Cost**
When it comes to laser and inkjet printer comparison with respect to cost, inkjet is cheaper than a laser printer. However, it has an added later cost of cartridges, which need to be replaced often. With the cost of replaced cartridges (USD 12 to USD 60 each), added over the years, you could pay more for an inkjet than a laser printer, if your printing volume is high. An average inkjet printer can print 100 - 200 color pages, before it requires a change of cartridges.

Laser printers cost more initially, but they do not require a change of cartridge for a long time. The toner cartridges in laser printers can print 2,500 - 10,000 pages, before they require a replacement. The cost of both printers varies according to cartridge quality, brand and features. Inkjet cost ranges from USD 50 to USD 200, while laser printers cost may range from USD 150 to USD 400.

Laser printers have an average life of five years compared to an average life of 3 years for inkjet printers.

**Laser Printer vs Inkjet Printer: Image Quality & Performance**
In a head to head comparison, if we keep the speed and cost considerations aside, both printers deliver quality images and printed texts. The laser jet print quality is a notch better than the inkjet, when it comes to text printing, but even in image printing, they have better resolution and detailing. While inkjet printers are better at printing images and photos, when it comes to providing brightness and rich color.

With this detailed laser printer vs inkjet printer comparison, I hope making a choice between the two is simpler. If you have a need for a high print page volume and need top notch image quality, buying laser printers is a suitable and reasonable choice. While, if you have a low volume of print work, an inkjet printer is a smart choice. That is my verdict on this issue!

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**Questions: (due Tuesday, April 26 at midnight)**

1. For printers, about what dpi is acceptable for every-day printing? What’s the minimum dpi you should use for photos?

2. Between the laser printer and the ink-jet printer, which is cheaper to use? How is this determined?

3. Which takes up less space (usually)?

4. Which is harder to repair? Why?

5. Which handles high-quality color photo images better? Why?

6. Which prints faster? How do we measure this? About what is the best rate?

7. How does inkjet ink adhere to the page? How does laser-printer ink adhere to the page?

8. Which creates sharper, crisper text and images?