

## **Inkjet Printing and Technology Briefing**

Outstanding quality and falling prices allow you to purchase the best photo inkjet printers for under \$400.

### **Major players in the printer market:**

Epson – first to offer a “photo” inkjet printer 10 years ago. Epson currently has 75% of the professional photography market. Epson printer units tend to last much longer than the competition. They are the only manufacturer to offer pigment-based inks. These inks produce prints that resist fade for up to 50 years.

Canon – making inroads in the market with speed, brilliant color quality, economical ink costs, and inexpensive printers. Canon’s choice of ink allows you to use many types of paper at the expense of print fade in under 20 years.

HP – owns the largest share of the consumer market. HP print quality has recently gotten much better while printer and ink costs remain the highest of all three makers. For long lasting prints, the HP solution requires you use one specific type of paper. Otherwise, prints will last 20 years or less before appreciable fade.

### **Technology Differences**

Epson – employs piezoelectric print heads that use electric impulses to move ink from the head onto the paper. These print heads do not wear out, but cannot be allowed to become dry.

Canon & HP – both printers use thermal print heads. Intense heat on a micro-level creates a pressure wave moving ink to the paper. These print heads wear out with use. HP puts the heads on each ink cartridge. Canon print heads are located on a replaceable part inside the printer.

### **Why Paper is Important**

Because of better and better printer technology, the need to use specially coated inkjet paper is actually on the rise. More precise ink droplet placement and the need to keep ink close to the surface means paper has to have a chemical coating to trap the ink. For the best possible photo reproductions, stick with paper designed for use with inkjet printers. Be prepared to spend at least 9 cents per sheet to achieve the quality dental professionals require.

### **Types of Paper Used in Orthodontics**

Glossy – Smooth and reflective surface makes glossy paper popular for photo printing. There are two types of gloss paper available today:

- 1) Cast coated glossy – An older technology, cast coated gloss has the advantage of having a plain paper back. This means you can print text or write notes on the back of these sheets
- 2) Resin coated gloss – Also called photobase, these papers look and feel just like a traditional photo lab print. While these make the best photo reproductions, you cannot print or write well on the back of these papers.

Matte – These papers have a non-gloss surface capable of photo quality reproduction. Matte papers are usually a half to a quarter of the price of gloss. Red River offers matte inkjet papers in many different weights and also 2-sided.

### **Uses for These Papers**

Glossy – Patient montages, any photos given to your patient, and marketing material you printed in-house.

Matte – Referral letters, digital radiography, treatment plans, everyday printing.

### **Printing the Best Possible Image**

Capture – Use a digital camera with at least 2.5 megapixels. A good photo file is essential to printing the best possible inkjet image. Cameras with 6, 8, and even 12 megapixels are available, but anything above 6mp is more marketing hype than actual results for your needs.

Software – Your office software suite probably has a module for image management and printing. If so, make sure to ask your trainer how to interact with your printer's software. You need to be able to make setting changes there for best image quality. Great stand-alone photo software can be found in Adobe's Photoshop Elements and Microsoft's Photo Pro.

Printer – Buy one that is specifically for photo printing. Look for 6 or more inks in a good inkjet printer. If you can get one that feeds from the back, like Epson or Canon, heavier weight photo papers will be easier to use.

### **Reasons to be Concerned with Image Quality**

Marketing – Always put your best image forward to clients and peers. A professional quality photo montage or referral letters says a lot about your practice

Legal Requirements – Most states require all patient records to be kept for 5 or more years. Printing all photos on high quality inkjet paper will do two things that minimize your legal liability in this area: 1) images printed on inkjet coated paper last longer than those printed on plain paper and 2) having a high quality photo record of your work on file means greater ability to defend yourself if any legal questions arise in the future

Diagnostic Value – As medical professionals, you need clear and accurate patient photos and radiographs in order to make the best treatment plan or diagnosis.

### **Need the Longest Possible Photo Print Life?**

Choose an UltraChrome inkjet printer from Epson. The Epson R800 is the current best choice with more models available in 2005. These printers use pigment inks and are compatible with a wide number of papers – all prints using UltraChrome technology should last 50 or more years.

Contact Information for Red River Paper  
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