



Newsletter Summer 2009

THE PROCESS OF PROCESSING



Processing plays an important part in the quality of the final radiographic image. The three phases of the processing sequence all play an important role in image quality.

Developing:

The primary function of the developer is to reduce exposed silver halide crystals in the film emulsion to metallic silver. Consistent development is dependent on temperature, time and concentration of the chemistry. Low temperature will result in under-development (reduced density/insufficient blackening) of the image. Reduced time in the developer, a weak working solution or exhausted developer (over used or oxidised) will also result in under-development of the film. Increased temperature (or time) in the developer will result in over-development (excessive blackening) of the film.

Fixing:

Fixer clears undeveloped, unexposed silver crystals from the film emulsion. This is done by converting undeveloped silver halide crystals into a soluble compound and dissolving them, leaving the developed metallic silver as a permanent image on the film. Un-exposed areas of film should be clear. Fixing time is approximately twice the development time. Film can stay in fixer for longer, but under fixing results in a cloudy or milky appearance. As with developer, fixer can also become exhausted.

Washing:

The final wash removes excess chemicals and any residual silver halides from the film emulsion. Inadequate washing results in retained fixer chemicals reacting with silver in the emulsion to form silver sulphide, eventually causing the film to turn brown.

More consistent film quality is achieved by using automatic processing but problems can occur whether developing the film manually or using an automatic film processor. An understanding of what happens during the processing sequence can help to identify the cause of problems when they occur.

FOR SALE! RECONDITIONED FUJI DIGITAL CR SYSTEM

Multi-plate reader system

We are pleased to be able to offer for sale a reconditioned Fuji Computed Radiography *FCR 5000 plus* system.

The system is in excellent working order and will be installed and maintained by skilled Fuji technicians.



The best part of all is the price is half that of a brand new system!

Fujifilm's Computed Radiography System greatly simplifies digital X-ray imaging. The *FCR 5000 plus* has an integrated cassette stacker which allows faster and more convenient operation. The multi-plate system reads and processes digital X-ray image information from the imaging plate. Simply by adding the FCR 5000 to your existing equipment, your radiography room can provide all the benefits of a highly advanced digital system.

Hard copies can be printed on film using an image recorder.

For further information and details of our complete digital range please call Paul on 01285 869869

THE CLEANEST, SAFEST CHEMISTRY ON THE MARKET

Naturecare SP X-ray Developer and Fixer

Naturecare SP X-ray Developer is a radically different processing developer that dispenses with hydroquinone as well as glutaraldehyde. In fact Naturecare SP X-ray Developer is so safe that it falls outside the COSHH regulations altogether.

Initially formulated for use in hospitals, it has been adapted for use in dental and veterinary practices with a view to improving safety and cleanliness of working. It comprises a single concentrate part so minimising mixing errors, weight and waste. It has little solvent action on silver halide so that the image is developed with high acutance and virtually no silver deposits to dirty the rollers.

The developer is paired with a single part fixer which has a low sulphur dioxide emission.

Naturecare SP is available in a pack containing 2 x 5l of developer and 2 x 5l of fixer.

