

## Liquid Based Pap Testing (SurePath<sup>®</sup>, ThinPrep<sup>®</sup>)

In 1943 Dr. George Papanicolaou introduced the Pap smear as a simple, inexpensive way to screen for cervical cancer. This test has been tremendously successful in reducing cervical cancer morbidity and mortality. Despite its success, Pap smear interpretation can be limited by sampling variability and artifacts such as blood, air-drying, and obscuring inflammatory changes. By changing the way that cervical cytology specimens are prepared, LB Paps improve cellular sampling while reducing slide artifacts. The result is a slide which is easier to screen and interpret while improving cellularity of the specimen.

During collection of a conventional Pap smear, as many as 80% of the cells from a cervical sample may be lost when the sampling instrument is discarded. With LB Paps, a cervical mop, brush, or plastic spatula is rinsed in a vial of preservative solution rather than being smeared on a slide. Rinsing retains more cells as part of the sample, improving cellularity on the final cytology slide and decreasing the likelihood of a limited or inadequate sample. Clinical trials reviewed by the FDA demonstrate that screening patients with LB Pap tests improved the detection of cervical dysplasia and carcinoma by 65% and reduced the number of less than adequate specimens by more than 50%.

Obtaining an LB Pap test is much the same as taking a conventional Pap smear. The cell sample is harvested from the transformation zone using a Cervex Brush (“mop”), cytobrush, or plastic spatula. Rather than smearing the specimen on a slide, the mop head or other collection device is rinsed in the preservative collection solution. The preservative vial containing cells is processed at InCyte Pathology on an instrument specially designed to create monolayer cervical cytology samples. As you can see, the LB Pap process results in a thin, even distribution of the cervical cells within a defined area on the glass slide (Figure 9). Many artifacts are eliminated, helping to clarify slide interpretation.

The LB Pap test is designed to be an effective cervical screening test for any woman. Its increased sensitivity benefits all women. Air-drying artifact, a common problem in atrophic smears taken from postmenopausal women, is virtually eliminated with LB Pap testing.

As we do with conventional Pap smears, InCyte Pathology will provide all the materials needed to obtain the LB Pap cervical sample.

We can also provide you with an information card, if desired, to demonstrate how to collect an LB Pap test.

Because it requires specific FDA-approved collection materials and more processing, an LB Pap is more expensive than a conventional Pap smear. The cost is currently about fifty dollars.

We are pleased to offer you this new technology. If you or your patients are interested in the LB Pap test, please call InCyte Pathology at (509) 892-2700 or 1-888-814-6277 (outside Spokane), and ask for Carol Brucick, Cytology Supervisor, for more information or materials.

**Figure 9: Conventional vs Liquid Based Smears**

