

# Monolayer cytology with the conventional Szalay Cyto-Spatula Pap Test

The traditional Szalay Cyto-Spatula Pap Test guarantees:

- Representative monolayer cell material with no additional technology and costly procedures.
- Swift and very rational application
- Unbeatable price/performance ratio
- High sensitivity and specificity\*

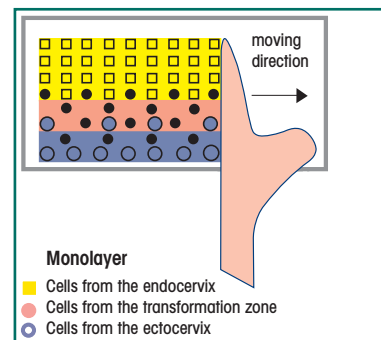
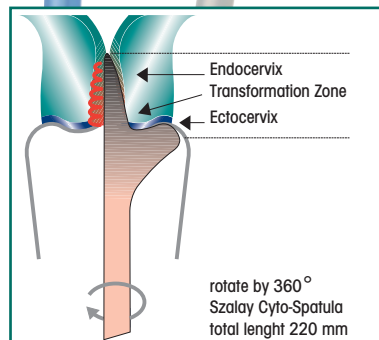
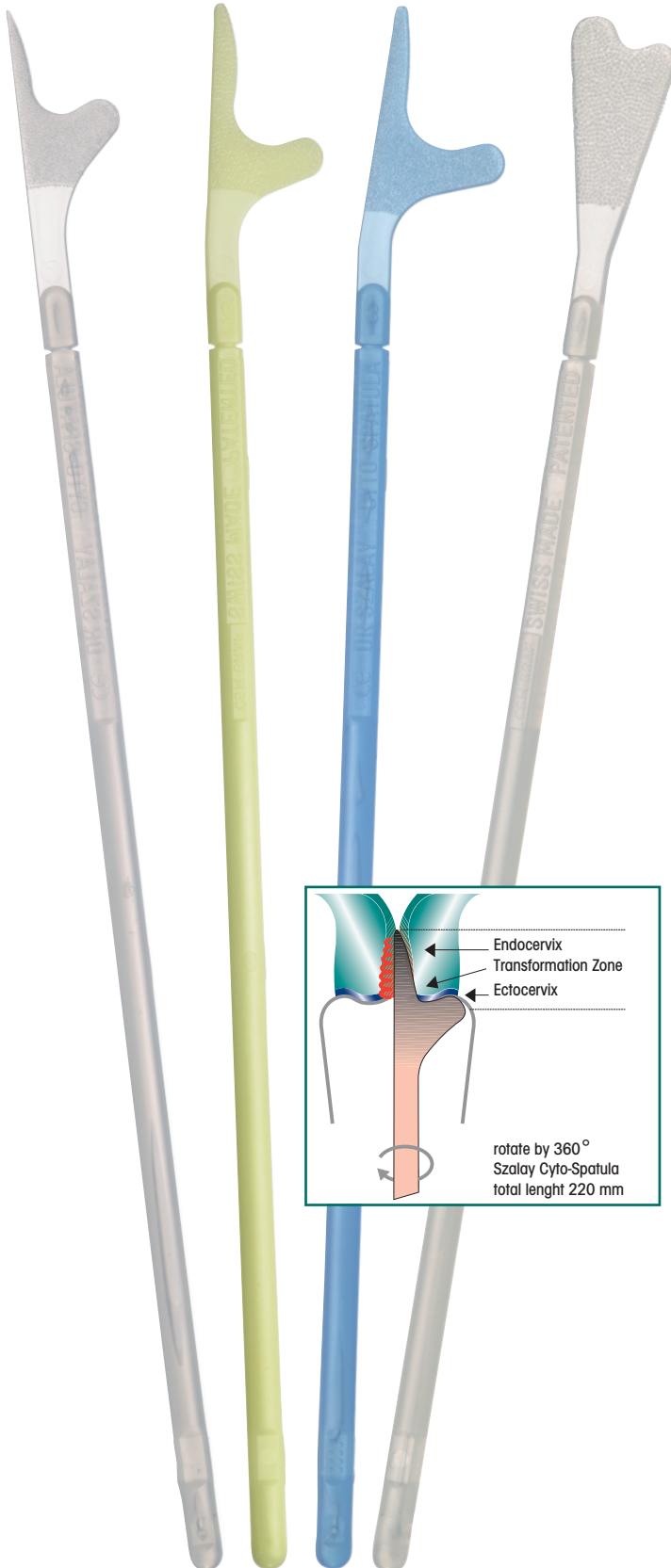
The special shape and surface of the Szalay Cyto-Spatula with the correct application guarantees a cytological smear, which always contains abundant and very well preserved cells from all zones of the cervix uteri.

The special pre-scored surface of the spatula provokes exfoliation and hence guarantees cell sampling even from deeper-lying cell layers.

Spreading the cell material sampled on to the slide with the special surface of the Szalay Cyto-Spatula produces a monolayer arrangement.

The Szalay Cyto-Spatula has a predetermined breaking point at the front.

The Szalay Cyto-Spatula Pap Test is very cost-effective and rational to use.



Szalay Cyto-Spatula Manufacturer

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## The possibilities of minimising the number of false negative smears with the Szalay Cyto-Spatula

The most frequent causes of false negative smears are:

### 1. From the clinical specialist's viewpoint:

Insufficient cytological material sampling with unsuitable smear tool.

### 2. From the cytologist's viewpoint:

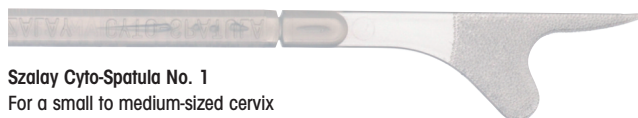
False negative diagnoses (Pap 1 or 2) due to non-representative cell material in the smear.

### 3. From the biological side:

a) Endocervical abnormalities: The squamo-columnar junction, which plays such a seminal role in the genesis of cervical carcinoma, is often located in the endocervix. Hence cervical intra-epithelial neoplasia (CIN) is of endocervical origin in 15 – 20% of cases. This means that it cannot be detected early either with the colposcope nor with traditional methods of cytological material sampling.

b) Superficial epithelial layers hinder the sampling of representative cytological material. With a significant proportion of severe dysplasia, carcinoma in situ and invasive carcinoma, superficial keratinisation may form thick hyperkeratotic plaques. This prevents the spontaneous exfoliation of neoplastic cells lying in deeper layers and signifies an insurmountable barrier for cell material sampling if instruments are too soft. Disorders in the blood supply and metabolism in the superficial layers of invasive carcinomas lead to degeneration and necrosis. This necrosis layer prevents cell sampling from the underlying zones of the carcinoma. This explains many false negative cytological diagnoses in cases of invasive carcinoma.

The Szalay Cyto-Spatula enables the sampling of sufficient representative cell material from these zones in the above cases.



Szalay Cyto-Spatula No. 1  
For a small to medium-sized cervix



Szalay Cyto-Spatula No. 2  
For a medium to large-sized cervix



Szalay Cyto-Spatula No. 3  
For a very large cervix



Szalay Cyto-Spatula No. 4  
For a larger cervix with an extended transformation zone, in addition to a smear from the endocervix

### Application

1. After inserting the speculum, cleanse the surface area of the ectocervix with a cotton swab to remove any mucus and debris.
2. Select the Szalay Cyto-Spatula with the best possible shape and size from the series.
3. Introduce the «tongue» of the spatula into the cervical canal, resting the «shoulder» of the spatula on the surface area of the ectocervix in the 3 o'clock position.

4. Using gentle pressure, rotate the spatula in a clockwise direction (see the video clip on [www.csmgraf.ch](http://www.csmgraf.ch)).

If the cervical canal is wide, ensure the «tongue» of the spatula remains in close contact with the internal wall of the cervical canal during rotation. If after rotating through 360° without any sign of bleeding (see important information) it is felt that the sample is insufficient, repeat the procedure once or twice.

5. Always spread the extracted cells lengthways along a slide. If distribution of the cell material is uneven, the same spatula may be used for re-spreading.
6. Fix the slide immediately.
7. Discard the Szalay Cyto-Spatula after use.
8. The Szalay Cyto-Spatula is pre-scored and is an ideal sampling device for liquid-based methods of analysis. The head of the Spatula can be detached easily from the stem and put directly in a vial with a preservative fluid for dispatch.

### Bibliography:

**Cervical Pathology Colposcopy and Cytology** by L. Szalay with more than 2300 illustrations; <http://www.szalaytutorial.hu/>  
**Cytology of the Uterine** by L. Szalay with more than 700 illustrations.

### Important information on the use of the Szalay Cyto-Spatula

Slight bleeding may occur during extraction of the material in 2-3% of cases, which however will not interfere with the subsequent colposcopic examination. If the patient is duly forewarned, slight spotting for 1-2 days is not unduly worrisome. Only very rarely does the blood affect the cytologic assessment. The colposcopic examination may also be conducted prior to taking the cervical smear! The most favorable time for the cervical smear is in the middle of the menstrual cycle or around the time of ovulation. The main reason for bleeding is due to selecting an unfavorable time for examination.

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#### \* Liquid Compared With Conventional Cervical Cytology

#### ■ Conclusion:

Liquid-based cervical cytology is neither more sensitive nor more specific for detection of highgrade cervical intraepithelial neoplasia compared with the conventional Pap test.

Obstet Gynecol 2008;111:167–77

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