

Cytology

Pap Smear/Gynecological Specimen

Principle: The Pap smear is used to sample the female genital tract for presence of cellular changes which may indicate cervical or uterine carcinoma or their precursors. Cells are scrapped or brushed by a qualified physician, physician's assistant, nurse, or technician. They are collected from the vagina, ectocervix, and/or endocervix and spread in a thin layer on a microscopic glass slide. Cells are immediately preserved with fixative. They are then sent to Cytology Laboratory for staining, screening, and diagnosing. Use of the Pap smear has been proven to be a useful tool in detecting and reducing the incidence of cervical carcinoma in women.

Specimen: Specimen may consist of cells obtained from the vagina, ectocervix, or endocervix. More than 1 specimen may be obtained from any 1 of these sources, or any combination of these areas, and spread on 1 or more glass slides.

- Type of Specimen and Criteria for Collection:
 - Preferred specimen is 1 combination slide or 1 slide each from the ectocervix and endocervix. An optimal and fully satisfactory specimen will contain 15,000 or more well-preserved and well-visualized squamous cells spread over 10% or more of the slide surface, and a minimum of 2 clusters with at least 5 squamous metaplasia cells to demonstrate that the squamocolumnar junction has been adequately sampled.
Note: If a hormonal evaluation is to be made, a vaginal smear is required.
 - Lack of endocervical/squamous metaplastic cells (if patient has uterus, and specimen is from cervix).
 - 50% to 75% of epithelial cells obscured by blood, inflammation, bacteria, thick areas, foreign material, or affected by air drying.
 - Scanty number of cells (eg, 5,000-15,000) on postmenopausal patients having an atrophic cell pattern, or on vaginal smears.
 - Cytolysis or autolysis affecting 50% to 75% of epithelial cells.
- Criteria for Unsatisfactory Specimen (all criteria relating to cellular quality and/or content must be determined under microscopic view by a qualified cytotechnologist and/or pathologist):
 - 75% or more of specimen allowed to air dry before fixation (specimen should be fixed within 15 seconds of smearing on slide).
 - Insufficient squamous cell content; <15,000 cells on nonatrophic specimens and <5,000 cells on atrophic specimens; cytolysis or autolysis affecting 75% or more of epithelial cells.
 - 75% or more of epithelial cells obscured by inflammation, blood, bacteria, thick areas, or foreign material.
 - Specimen is not representative of anatomic site.
- Criteria for Maturation Index - The following criteria precludes evaluation of a maturation index:
 - Insufficient squamous cells (<500).
 - Infectious agents present (eg, fungus, trichomonads).
 - Presence of abnormal cells.
 - Excessive inflammation or coccoid bacteria present.
 - Excessive cytolysis or autolysis.
 - Excessive air drying of specimen.
 - Presence of endocervical cells.
- Criteria for Unacceptable Specimen:
 - If proper identification, information, and/or cytology requisition form are not present, specimen will either be referred back to medical staff making request or be delayed until the information is obtained.
 - Improper fixative (formalin, lower or higher than 95% concentrations of ethyl alcohol, non-specified spray fixative, etc.).
 - Unlabeled specimen.
- Criteria and Definitions for Specimen Adequacy:
 - **“Satisfactory for evaluation”** indicates that the specimen has all of the following:
 - Appropriate labeling and identifying information.
 - Relevant clinical information.
 - Adequate numbers of well-preserved and well-visualized squamous epithelial cells.
 - An adequate endocervical component (from a patient with a cervix).
 - Well-preserved and well-visualized squamous epithelial cells should cover >10% of slide surface. An adequate endocervical/transformation zone component should consist of, at a minimum, 2 clusters of well-preserved endocervical glandular cells, with each cluster composed of at least 5 cells. This definition applies to specimens from both premenopausal and post menopausal women with a cervix.

- A specimen is **“satisfactory for evaluation but limited by”** if any of the following apply:
 - Lack of pertinent clinical patient information (age, date of last menstrual period as a minimum; additional information as appropriate).
 - Partially obscuring blood, inflammation, thick areas, poor fixation, air-drying artifact, contaminant, etc. that precludes interpretation of approximately 50% to 75% of the epithelial cells.
 - Absence of an endocervical component as defined above.
- “Satisfactory for evaluation but limited by”** indicates that the specimen provides useful information; however, interpretation may be compromised. A report of **“satisfactory for evaluation but limited by absence of endocervical/transformation zone component”** does not necessarily require a repeat smear. Patient factors such as location of the transformation zone, age, pregnancy, and previous therapy may limit the clinician’s ability to obtain an endocervical specimen. The ultimate determination of specimen adequacy rests with the clinicians who must correlate the findings described in the cytopathology report with clinical knowledge of the individual patient.
- A specimen is **“unsatisfactory for evaluation”** if any of the following apply:
 - A slide that is broken and cannot be repaired.
 - Scant squamous epithelial component (well-preserved and well-visualized squamous epithelial cells covering <10% of the slide surface).
 - Obscuring blood, inflammation, thick areas, poor fixation, air-drying artifact, contaminant, etc. that precludes interpretation of approximately 75% or more of the epithelial cells.
- The **“unsatisfactory”** designation indicates that the specimen is unreliable for detection of cervical epithelial abnormalities.

Specimen adequacy is evaluated in all cases. However, any epithelial abnormality is of paramount importance and will be reported regardless of compromised specimen adequacy. If abnormal cells are detected, the specimen is never categorized as **“unsatisfactory.”** Such cases may be considered **“satisfactory”** or **“satisfactory but limited by”** based on the above criteria.

Reference

Specimen Adequacy: Definitions, Criteria, and Explanatory Notes. Part 1 In: The Bethesda System for Reporting Cervical/Vaginal Cytologic Diagnoses. Edited by Kurman RJ, Solomon D. Spring-Verlag 1994, pp 6, 8

Pap Smear/One Slide Procedure

Cervical and endocervical specimens are combined on 1 slide for this procedure.

1. Obtain cervical specimen by rotating cervical scraper around ectocervix with emphasis on the squamocolumnar junction. Deposit this material on slide but do not smear. This will help prevent air drying of the specimen while you obtain endocervical specimen.
2. Obtain endocervical specimen by gently inserting cytobrush into endocervical canal past the squamocolumnar junction. Rotate cytobrush 1 half turn (180°). Gently remove cytobrush and smear endocervical specimen together with cervical specimen on slide using a rotating motion to produce an even smear.
3. Spray fix immediately. Fixative spray should have an outdate of 3 months after opening.

Pap Smear/ThinPrep® Test

Most gentle, yet effective means of simultaneously taking both ectocervical and endocervical cell specimens.

1. Contact cervix with papette tool and insert central bristles into cervical canal deep enough to allow shorter bristles to fully contact ectocervix.
2. While maintaining gentle pressure in direction of cervix, rotate brush 5 times in a clockwise direction.
3. Rinse brush into PreservCyt® solution for use with ThinPrep® Pap test by pushing brush into bottom of vial 10 times forcing bristles apart. Swirl brush vigorously to further release material. Discard collection device.
4. Tighten PreservCyt® vial cap so that torque line on cap passes torque line on vial.
5. Dispose of papette in accordance with medical hazardous waste practices.
6. Label as with all specimens and completely fill out all necessary information on the “Pap Order Form” in accordance with Pathology regulations.

Pap Order Form

APPOINTMENT CENTRAL
LAB OUTPATIENT/OUTREACH PHYSICIAN
PAP ORDER FORM
www.stjosephhospital.com



PATIENT INFORMATION			
Last Name	First Name	MI	DOB
Street Address		SEX M F	
City		State	Zip
Home Phone No.		Subscriber Name	
Insurance Name	Policy Number	Relationship to Patient <input type="checkbox"/> Self <input type="checkbox"/> Spouse <input type="checkbox"/> Dependent	

Special Instructions: Please indicate the information requested below in the appropriate area. This material is essential to the specialist who will render an opinion based on an interpretation of all patient data. **Check box below.**

*Clinical Comments: _____

Papanicolaou (PAP) Smear Testing (select one test below)

Screen: Routine Exam. No current symptoms. No previous abnormal findings.

"Diagnostic: Previous abnormal Pap findings, signs or symptoms, or has significant complaints related to female reproductive system (*describe above in Clinical Comments).

Test	Mayo(CPT)Code	<input checked="" type="checkbox"/>	Source (select one)
Thin Prep Pap	82037 (GO123)	Screen	<input type="checkbox"/> Cervical/Endocervical
Thin Prep Pap	82039 (88142)	Diagnostic	<input type="checkbox"/> Endocervical Curettage
Thin Prep Pap with HPV Reflex	83342 (88142)	Screen	<input type="checkbox"/> Vaginal
Thin Prep Pap with HPV Reflex	83343 (88142)	Diagnostic	Check Box if:
HPV (requires separate specimen) Specimen may be Digene swab or separate Thin Prep Vial			<input type="checkbox"/> Pregnant
			<input type="checkbox"/> Postpartum
			<input type="checkbox"/> Postmenopausal
			LMP: _____ (mm/dd/yy)

Please assure that the Full Legal Name is clearly on the specimen and matches paperwork exactly.
Enclose a copy of insurance card with legal name with requisition.

OTHER TEST/ SERVICE: _____

ICD 9 CODE or Reason for test REQUIRED HERE for each test ordered. See reverse side for reference list only.

MD Name (Print) _____ Date _____	Copies to: _____ (Full Name Required)
MD Signature _____ Phone Number _____ Fax Number _____	Specimen Collection: Date _____ Time _____



- SJH Nashua M-F 7am - 7pm; Sat 7am - 12pm
- Milford M-F 7am - 7pm; Sat 7:30am - 3pm;
Sun 9am- 12pm
- 460 Amherst St. M-F 7am - 5pm
Nashua

Call: 603-598-3323 Fax: 603-578-5058

PHYSICIAN ORDERS

Place Label Here

Inv# M2551 Orig: 05/05
 Rev: 02/06, 07/06, 5/10

Histology/Cytology Physician Order Form

**APPOINTMENT CENTRAL
LAB OUTPATIENT/OUTREACH
HISTOLOGY/CYTOLOGY
PHYSICIAN ORDER FORM**

www.stjosephhospital.com

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PATIENT INFORMATION			
Last Name	First Name	MI	DOB
Street Address		SEX M F	
City		State	Zip
Insurance Name		Policy Number	Relationship to Patient <input type="checkbox"/> Self <input type="checkbox"/> Spouse <input type="checkbox"/> Dependent
Surgical Procedure			
Clinical Indications			
Pre-Op Diagnosis			
Post-Op Diagnosis			
Specimen Type			
Remarks			
Pathology Use Only: Frozen Section Diagnosis			

**Please assure that the Full Legal Name is clearly on the specimen and matches paperwork exactly.
Enclose a copy of insurance card with legal name with requisition.**

Pathology Case Number:	
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OTHER TEST/ SERVICE:	Speciman Collection Date: _____ Time: _____ AM/PM
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ICD 9 CODE or Reason for test REQUIRED HERE for each test ordered. See reverse side for reference list **only**.

MD Name (Print) _____ Date _____	Copies to: _____ (Full name required)
MD Signature _____	
Phone Number _____ Fax Number _____	



**ST. JOSEPH
HOSPITAL**
NASHUA, NH 03061

Inv# M2018 Orig: 05/05
Rev: 08/06, 5/10

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 Milford M-F 7am - 7pm; Sat 7:30am - 3pm;
 Sun 9am- 12pm

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