

Overview**Useful For**

Aids in the diagnosis of joint disease, systemic disease, inflammation, malignancy, infection, and trauma

Profile Information

Test ID	Reporting Name	Available Separately	Always Performed
CCBF_	Cell Count and Differential, BF	No	Yes
CRSF	Morphologic Review, BF	No	Yes

Reflex Tests

Test ID	Reporting Name	Available Separately	Always Performed
LCMS	Leukemia/Lymphoma, Phenotype	Yes	No
CYTNG	Cytology Non-GYN	Yes	No

Testing Algorithm

When abnormal cytologic features are present, the laboratory may reflex to a miscellaneous cytology test. Fee codes for that test vary depending on review process.

Method Name

Automated or Manual Cell Count/Cytocentrifugation followed by Manual Differential and Morphology Review

Stain slide with Wright-Giemsa stain.

NY State Available

No

Specimen**Specimen Type**

Body Fluid

Advisory Information

For spinal fluid, order CCCF / Cell Count and Differential, Spinal Fluid (CSF).

For bronchoalveolar lavage, order LAV / Cell Count and Differential, Bronchoalveolar Lavage.

Shipping Instructions

Specimen must arrive within 24 hours of collection.

Necessary Information

Indicate specimen source.

Specimen Required
For Local Accounts Only
Sources: Synovial, pleural, peritoneal, pericardial

Container/Tube:
Preferred: Body fluid container

Acceptable: EDTA or heparin

Specimen Volume: 1 mL

Specimen Minimum Volume

0.7 mL

Reject Due To

Gross hemolysis	OK
Other	Clotted Nasal fluid, sputum, amniotic fluid

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Body Fluid	Ambient (preferred)	24 hours	
	Refrigerated	24 hours	

Clinical and Interpretive
Clinical Information

Body fluids, other than the commonly analyzed urine and blood, include synovial, pleural, peritoneal, and pericardial fluids. These fluids may be present in increased volumes and may contain increased numbers of normal and abnormal cells in a variety of disease states.

Reference Values

TOTAL NUCLEATED CELLS

Synovial fluid: <150/mcL

Peritoneal/pleural/pericardial fluid: <500/mcL

NEUTROPHILS

Synovial Fluid: <25%

Peritoneal/pleural/pericardial fluid: <25%

LYMPHOCYTES

Synovial fluid: <75%

MONOCYTES/MACROPHAGES

Synovial fluid: < or =70%

Interpretation

Trauma and hemorrhage may result in increased red and white cells; red cells predominate. White blood cells are increased in inflammatory and infectious processes:

- Neutrophils predominate in bacterial infections
- Lymphocytes predominate in viral infections
- Macrophages may be increased in inflammatory and infectious processes
- Eosinophils may be increased in parasitic or fungal infections

Cautions

No significant cautionary statements

Clinical Reference

1. Kjeldsberg C, Knight J: Body Fluids: Laboratory examination of cerebrospinal, seminal, serous and synovial fluids. American Society of Clinical Pathologists, Chicago, 1993
2. Dyken PR, Shirley S, Trefz J, El Gammel T: Comparison of cyto-centrifugation and sedimentation techniques for CSF cyto-morphology. Acta Cytologica 1980;20:137-170
3. Sheth KV: Cerebrospinal and body fluid cell morphology through a hematologist's microscope, workshop presented at the ASCP-CAP Joint Spring Meeting, San Diego, March 1981
4. Schumacher AH, Reginato A: Atlas of Synovial Fluid Analysis and Crystal Identification. Lea and Febiger, Philadelphia, 1991

Performance

Method Description

The cells are applied to a glass slide by cytocentrifugation. Wright-Giemsa stained slides are examined by light microscopy and a differential is performed. Total nucleated cell count is determined using an automated hematology analyzer or a microscopic counting chamber. (Instruction manual: Automated Hematology Analyzer XN series [XN-1000]. Code No. CJ410539. North American Edition. November 2015)

PDF Report

No

Day(s) and Time(s) Test Performed

Monday through Sunday; Continuously

Analytic Time

Same day/1 day

Maximum Laboratory Time

2 days

Specimen Retention Time

1 week

Performing Laboratory Location

Rochester

Fees and Codes**Fees**

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact [Customer Service](#).

Test Classification

This test has been modified from the manufacturer's instructions. Its performance characteristics were determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

CPT Code Information

89051-Cell count with differential count

88184 if applicable

88185 if applicable

88187 if applicable

88188 if applicable

88189 if applicable

88104 if applicable

88108 if applicable

88112 if applicable

88161 if applicable

88162 if applicable

88305 if applicable

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
CCBF	Cell Count and Differential, BF	34557-9

Result ID	Test Result Name	Result LOINC Value
FLD2	Fluid Type	14725-6
OTH11	Other Cells Are:	75353-3
CMT81	Comment	48767-8
APP2	Gross Appearance	9335-1
TOT12	Total Nucleated Cells	74689-1
REV81	Reviewed by:	18771-6
RBC1	Erythrocytes	26455-6
CMT37	Comment	48767-8
NE_BF	Neutrophils	26513-2
LY_BF	Lymphocytes	11031-2
MM_BF	Monocytes/Macrophages	30437-8
EO_BF	Eosinophils	26452-3
BA_BF	Basophils	28543-7
OTH1	Other Cells	75353-3
CMT3	Diff Comments	59466-3
DCCBF	Download CCBF	No LOINC Needed