MAYO CLINIC LABORATORIES

Test Definition: FER

Semen Analysis, Semen

Overview

Useful For
Determining male fertility status

Method Name
Manual

NY State Available
No

Specimen

Specimen Type
Semen

Ordering Guidance
This test should not be used to check patient's sterility following a vasectomy. For such cases, order POSV / Post Vasectomy Check, Semen.

Semen analysis specimens submitted to Mayo Clinic Laboratories are not acceptable for fructose testing due to the use of dilution media. For specimen requirements for fructose testing in azoospermia patients, see FROS2 / Fructose, Qualitative, Semen.

Submit separate specimen to rule-out ejaculatory duct blockage. Positive result indicates no blockage.

Shipping Instructions
Specimen must arrive within 24 hours of collection. Send specimen Monday through Thursday only and not the day before a holiday. If holiday falls on a Saturday, holiday will be observed on the preceding Friday. Sunday holidays are observed on the following Monday. Specimen should be collected and packaged as close to shipping time as possible. Laboratory does not perform testing on weekends.

Necessary Information
Include the following information:
-**Semen volume (required)**
-Viscosity
-pH
-Appearance (color)
-Number of days of sexual abstinence

Specimen Required
Patient Preparation: Patient should have 2 to 7 days of sexual abstinence at the time of semen collection for accurate

results.

Supplies: Semen Analysis Kit - Dilution Media (T178)

Specimen Volume: Total ejaculate

Collection Instructions:

See complete Semen Collection instructions included with the kit.

1. Prior to use, allow dilution medium to warm to room temperature for 45 to 60 minutes.
2. Allow semen to liquefy at room temperature for up to 30 minutes.
3. Use sterile volumetric pipet or tube for volume measurement.
4. Pour liquefied semen into 50-mL dilution medium container within 60 minutes of semen collection time, cap tightly, but do not overtighten, and gently mix.

Note: Proper temperature maintenance of specimen throughout processing and shipping is critical. All materials the specimen is exposed to should be at room temperature (20-28 degrees C).

Specimen Minimum Volume

See Specimen Required

Reject Due To

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Semen	Ambient		

Clinical & Interpretive

Clinical Information

Semen is composed of spermatozoa suspended in seminal fluid (plasma). The function of the seminal fluid is to provide nutrition and volume for conveying the spermatozoa to the endocervical mucus.

Male infertility can be affected by a number of causes. Chief among these is a decrease in the number of viable sperm. Other causes include sperm with abnormal morphology and abnormalities of the seminal fluid.

Reference Values

Appearance: Normal
Volume: > or =1.5 mL
pH: > or =7.2
Motile/mL: > or =6.0 x 10(6)
Sperm/mL: > or =15.0 x 10(6)
Motility: > or =40%
Grade: > or =2.5

Note: Multiple laboratory studies have indicated that semen parameters for motility and grade, on average, retain 80% of original parameters when our shipping method is used for transport. Using these averages, samples with 32% to 39% motility and grade of 2 may be in the normal range if testing was performed shortly after collection. Therefore, these

borderline patients may need to collect another sample at a local fertility center to verify fertility status.

Motile/ejaculate: > or =9.0 x 10(6)
Viscosity: > or =3.0
Agglutination: > or =3.0
Supravital: > or =58% live
Fructose: Positive

Note: Fructose testing cannot be performed on semen analysis specimens shipped through Mayo Clinic Laboratories.

Submit separate specimen to rule out ejaculatory duct blockage. Positive result indicates no blockage.

Interpretation

Semen specimens can vary widely in the same man from specimen to specimen. Semen parameters falling outside of the normal ranges do not preclude fertility for that individual. Multiple samples may need to be analyzed prior to establishing patient's fertility status.

Cautions

No significant cautionary statements

Clinical Reference

1. Cooper TG, Aitken J, Auger J, et al, eds. WHO laboratory manual for the examination and processing of human semen. 5th ed. WHO Press; 2010
2. Bjorndahl L, Apolikhin O, Baldi E, et al, eds. WHO laboratory manual for the examination and processing of human semen. 6th ed. World Health Organization; 2021

Performance

Method Description

The sample is measured for volume and analyzed microscopically to determine the number of sperm present, the number of moving or motile sperm, and the properties of the sperm motility.(WHO laboratory manual for the examination of human semen. 6th ed. World Health Organization; 2021)

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

1 to 4 days

Specimen Retention Time

Not retained

Performing Laboratory Location
Rochester

Fees & 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 account representative. For assistance, contact Customer Service.

Test Classification
This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information
89310

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
FER	Semen Analysis	54231-6

Result ID	Test Result Name	Result LOINC® Value
ABSTN	Abstinence	10587-4
CLST1	Collection Site	56816-2
TY	Study Type	54453-6
CNTN	Container Type	74384-9
APP3	Appearance	13359-5
VL53	Semen Volume	3160-9
PH1	pH	2752-4
MOTML	Motile/mL	42531-4
SPML	Sperm/mL	9780-8
MOTY	Motility	In Process
GR2	Grade	13942-8
MOTEJ	Motile/Ejaculate	In Process
VISC	Viscosity	32789-0
AGGLU	Agglutination	33217-1
STAIN	Supravital Stain	101570-0
FRCT	Fructose	13943-6
CMT45	Comment	48767-8