

Comprehensive Semen Analysis

Patient: John Doe	Physician: Clinician Example
Gender: M Age: 41Y Date of birth: 10/06/1980	Phone: 413-555-5555 Fax: 413-555-5556
Specimen: T0009704 Chart#: Not Provided	Address: Example Clinic
Reported: 03/01/2022	123 Example St
Received: 02/25/2022 Time: 8:00	Example City, EX 55555
Collected: 02/24/2022 Time: 9:00	

Collection device: Cup
 Collection difficulty: None

Abstinence period 3 Days

Transport method 

Selected results overview

Question	Testing category	Result type		Result highlights
		In range	Out of range	
How many sperm do I have?	Count		✓	11.00 million sperm per ml 12.00 million total motile sperm
Do my sperm move well?	Motility	✓		72% total motility (62% progressive)
Are my sperm shaped normally?	Morphology	✓		5% normal forms
Is there evidence of inflammation in my semen?	Inflammation		✓	8.7 million/ml white blood cells

Additional comments for page 1:
 none

Sperm Terms

normozoospermia	semen with sperm of normal concentration, motility, and shape (morphology)
oligozoospermia	low sperm concentration or total number of sperm
azoospermia	no sperm in semen
asthenozoospermia	low percentage of sperm which move in a forward direction

teratozoospermia	low percentage of sperm with normal shape (morphology)
oligoasthenoteratozoospermia	abnormal concentration, motility, and shape (morphology)
leukospermia (pyospermia)	semen with high levels of inflammatory cells
haemospermia (haematospermia)	presence of red blood cells (erythrocytes) in semen

References

- World Health Organization. *WHO Laboratory Manual for the Examination and Processing of Human Semen*, 5th ed. Geneva: World Health Organization, 2010.
- Bjorndahl L, Mortimer D. *A Practical Guide to Basic Laboratory Andrology*. Cambridge, UK: Cambridge University Press; 2010.
- Lipshultz LI, Howards SS, Niederberger CS, eds. *Infertility in the Male*. 4th Ed. Cambridge, UK: Cambridge University Press; 2009.

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Comprehensive Semen Analysis

Results

ReproSource[®]
 Fertility Diagnostics
 ILLUMINATING PATHWAYS TO REPRODUCTIVE HEALTH

Results

Testing category	Test	Units	Range	In range	Out of range	Note
Semen characteristics						
Liquefaction and viscosity are measures of how fluid the semen is, and are affected by correct specimen transportation, time and temperature. The appearance and/or color of semen can be affected by abnormal processes (eg, blood can produce a red/brown color). Semen pH generally reflects the balance of secretions from accessory glands. * Semen analysis performed after 1 hour does not detect delayed liquefaction, and pH may be more alkaline.	Transport: Integrity	qualitative	accept	accept		
	Semen: Volume	mL	≥1.5	1.50		
	Liquefaction	qualitative	complete	complete*		
	Viscosity	qualitative	normal	normal		
	pH	units	≥7.2	7.5 *		
	Appearance	color	white/gray	White/Grey		
	Other	qualitative	none	none		

Sperm analysis						
Count, Motility, Morphology, Agglutination: Guidance on normal ranges for these measurements have evolved over time. This report follows the 5th and most recent edition of the World Health Organization (WHO) manual (2010). Sperm attaching to other sperm (agglutination) can reduce the accuracy of results, which may be due to anti-sperm antibodies. Sperm Health: Sperm may appear normal and yet be unhealthy, which can be assessed in different ways. Viability (vitality) testing assesses the percentage of sperm with intact membranes.	Count: Concentration	million/mL	≥15		11.0	oligospermia
	Total/ejaculate	million	≥39		16.5	low
	Total motile/ejaculate	million	N/A	12.0		
	Motility: Total (PR+NP)	%	≥40	72		
	Rate of progression	units	0-4	3		
	Progressive (PR)	%	≥32	62		
	Non-progressive (NP)	%	N/A	10		
	Immotile (IM)	%	≤60	28		
	Morphology: Kruger strict	% normal	≥ 4	5		
	Agglutination: Grade	units	1-4	1		
Attachment type	qualitative	N/A	A		A=head to head	
Sperm Health: Viability	%	≥ 58	70			

Cells and inflammation						
Other cells are found in semen, such as epithelial cells from the genitourinary tract and "round" cells. White blood cells (WBCs) are involved in inflammation, and these CD45 cells are measured by flow cytometry.	Other cells:	Round	million/mL	<5.0	9.50	high
		Epithelial	million/mL	N/A	1.2	
		Clumping	%	N/A	15	
	Inflammation: WBCs	million/mL	<1.0		8.70	high

Additional comments for page 2:
 none

The above tests were developed and their analytical performance characteristics have been determined by ReproSource Fertility Diagnostics. They have not been cleared or approved by the U.S. Food and Drug Administration. These assays have been validated pursuant to the CLIA regulation and are used for clinical purposes.

References (continued)

- Perticarari S, Ricci G, Granzotto M, et al. A new multiparameter flow cytometric method for human semen analysis. *Hum Reprod.* 2007;22(2):485-494. doi:10.1093/humrep/del415
- Chen Z, Hauser R, Trbovich AM, et al. The relationship between human semen characteristics and sperm apoptosis: a pilot study. *J Androl.* 2006;27(1):112-120. doi:10.2164/jandrol.05073.