

Beginner

WHO 5th and 6th Edition Semen Examination Guidance

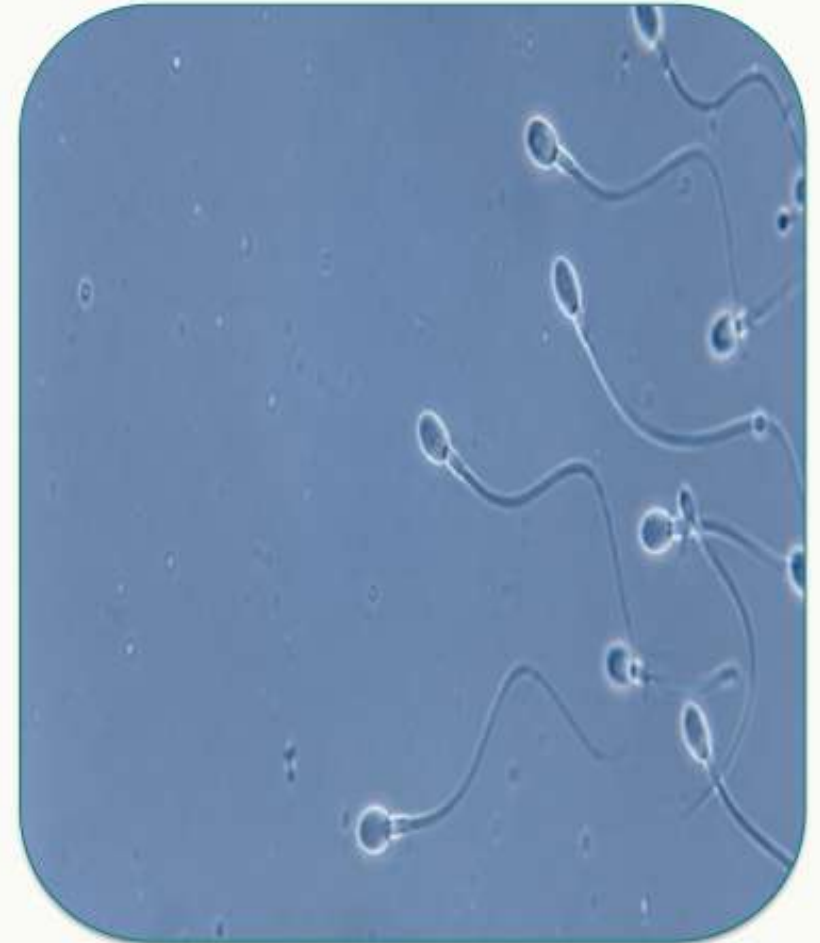
Introduction and core concepts for learners entering andrology, embryology and ART practice

Major category	Subcategory	Author
ART Standards, Laws and Ethics	ART Standards and Guidelines	Manoj Kumar k

Inside Embryo by Aurion

Standardised semen examination improves communication and quality.

WHO guidance helps laboratories examine, report and interpret results carefully.



Take-home: A semen report is informative only when collection, measurement and interpretation are standardised.

Learning objectives

What the learner should be able to do after this presentation

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- 1 Define semen examination and its purpose in fertility care.
- 2 List the main pre-analytical, macroscopic and microscopic steps.
- 3 Recognise the key report parameters and their common units.
- 4 Describe important differences between WHO 5th and 6th editions.
- 5 Interpret results cautiously and avoid common beginner errors.

Take-home: Beginner learning should focus on process, terminology, units and careful interpretation—not on isolated numbers.

Essential terminology

Six words that make a semen report easier to read

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Semen

The full ejaculate, including sperm and seminal plasma.

Liquefaction

The normal gel-to-fluid change after ejaculation.

Concentration

Number of sperm per millilitre of semen.

Total motility

Percentage of sperm that show any movement.

Vitality

Percentage of live sperm, often used when motility is low.

Morphology

Assessment of sperm form using defined criteria.

Take-home: Define the word first, then interpret the number beside it.

[1,2]

WHO 5th edition and 6th edition

What changed at beginner level?

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2010

WHO 5th edition

Established widely used lower reference limits from recent fathers.

Standardised core methods for routine semen analysis.

Popularised reporting of concentration, motility, vitality and morphology.

2021

WHO 6th edition

Updated methods and stronger emphasis on quality assurance.

Presents basic, extended and advanced semen examination.

Encourages careful use of reference values, not rigid pass/fail thinking.

Both editions aim to improve standardisation. The 6th edition updates the framework and interpretation emphasis.

Take-home: The 6th edition is an update in method and interpretation framework, not a rejection of the basic principles used in the 5th edition.

[1-6]