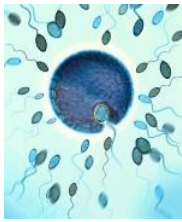


## Interpretation of semen analysis results

The current WHO guidelines from 2021 (replace the previous WHO guidelines from 2010) precisely specify the method of semen analysis and the interpretation of semen analysis results.



Semen

### concentration

(sperm count) at least 16 million/ml (39 million/ejaculate)

### ejaculate volume

the entire portion of donated semen - it should be at least 1.5 ml

### sperm motility

is crucial for fertility. Non-motile sperm or sperm with reduced motility have no chance of fertilizing an egg.

- at least 30% of sperm progressive movement (forward)
- at least 42% of total motile sperm (progressive + non-progressive)

### sperm viability

- at least 54%

### sperm morphology

- at least 4%. Morphology determines the percentage of sperm with ideal parameters in the semen, i.e. the appearance of the head, midpiece and tail.

### pH

- at least 7.2
- A pH value greater than 8.5 and a low semen volume are associated with obstruction of the prostatic secretion ducts or prostatic hypoplasia/dysfunction.

### viscosity

- a reduced value is usually found in semen with a very low sperm count. It can also be found in the semen of patients after vasectomy.
- Increased viscosity may indicate impaired prostate function, inflammation in the genital tract, dehydration or, less commonly, cystic fibrosis.

### agglutination

- the adhesion of motile sperm to each other forming the so-called agglutinates. Clustering of several to several hundred (or more) sperm cells. Clustered sperm cannot fertilize.
- Depending on the number of spermatozoa in the agglutinate, the degree of agglutination is determined.
- The presence of agglutination may indicate the presence of antisperm antibodies on the sperm surface.

### the appearance of semen

- is defined as normal when the semen color is grey-opal, milky-gray, opaque.
- Clear (transparent) color indicates a low sperm count in the semen.
- Yellowish color of semen may indicate jaundice or may be caused by taking medications or vitamins, for example. from group B.
- The reddish-brown color may be due to the presence of blood.

### concentration of round cells

- In semen, apart from sperm, there may be leukocytes and sperm-forming cells collectively referred to as "round cells". It is important to distinguish them, for this purpose the concentration of peroxidase-positive leukocytes, i.e. inflammatory cells, is determined.
- The higher the concentration of round cells, the lower the sperm count and motility. This may consequently lead to a reduced ability of sperm to fertilize.

If any of the parameters such as: mobility, concentration, vitality or morphology is higher than the reference value, it is treated as normal.

Nevertheless, **semen analysis results should be evaluated taking into account the dependencies between individual parameters.**

The recommended period of sexual abstinence (including masturbation) has a great influence on semen concentration. The more often ejaculation occurs, the lower the concentration of semen in successive portions of semen.

Below-reference results should be analyzed in terms of multiple factors, not just a single parameter.

**If you have questions, call us and consult your results.**

[Make an appointment for a semen analysis. Call 606 548 883](#)