

MORPHOLOGY

Morphology Measurement

Another highly important parameter assessed during the semen analysis is the overall morphology, or shape of the sperm. The shape of the sperm is a reflection of proper sperm development in the testicles, or more specifically during the process called spermatogenesis (sperm formation).

QualiSperm is classifying sperms according to the "strict criteria" (also known as Krueger criteria).

QualiSperm provides:

- Number of sperms measured
- % spermatozoa in and out of range
- % of abnormalities of Head, Mid-piece and Tail
- Morphometric data
- Teratozoospermia Index
- Works with WHO approved staining methods, optimized with Papanicolaou

| Results | |
|--------------------------|----------------|
| ● Current Image | |
| ○ Whole Set (4 Image(s)) | |
| Number Sperms | 3 |
| % In Range | 67 |
| % Out of Range | 33 |
| Head | |
| Length [µm] | 3.92 +/- 0.13 |
| Width [µm] | 2.76 +/- 0.18 |
| Length / Width | 1.42 +/- 0.07 |
| Area [µm ²] | 8.49 +/- 0.79 |
| Acrosome | |
| Area [µm ²] | 2.46 +/- 0.61 |
| Percentage [%] | 28.57 +/- 4.37 |
| Tail | |
| Length [µm] | 36.83 +/- 3.66 |
| Midpiece | |
| Angle [Deg] | 4.88 +/- 13.1 |
| Width [µm] | 0.9 +/- 0.18 |

Morphological sperm assessment using the QualiSperm software. Papanicolaou stained sperms imaged with a 100x high resolution objective indicating normal (outlined in green) and abnormal (outlined in red) sperms. Also the morphology module has been developed with ease-of-use as the main criterion.