




C A S A
Computer
Assisted Semen Analysis



Sperm&Tek[®] 

SpermTek®

CASA

Computer Assisted Semen Analysis utilizes latest technology of machine vision and image processing techniques for the clinical assessment of sperm motility, morphology, vitality, DNA fragmentation, Acrosome reaction test and Leukocytes.

Based on the sperm test standards of the WHO 6th criteria (2021), the system can analyze the characteristics of the sperm comprehensively and generates accurate parameters to show sperms' quality. The whole procedure is fast and provides several and important information that are vital to current scientific basis for the male reproductive ability.



what's new?

ALWEX introduces the all new and innovative SpermTek microscope. Creative head with built-in digital camera & temperature controller.



Innovative microscope

SpermTek[®] CASA

SpermTek is the world's most advanced, reliable and cost effective CASA. Fast, accurate and objective results for sperm analysis can be obtained for any Pathology and Andrology laboratories.

- * All in one solution.
- * Reliable, accurate, homogeneous and objective results.
- * Powerful yet flexible.
- * Fast, easy and intuitive user interface.

Main Modules:

- * Count and Motility
- * Morphology
- * Vitality
- * DNA Fragmentation
- * Acrosome reaction test
- * Leukocytes



- * Follows WHO 6th edition strict criteria.
- * Automatic comment generating according to the results.
- * Creative constant-temperature operation desk
- * handy on-screen virtual grid function
- * Robust database with incremental backup and restore.
- * Generating of historical report.
- * Stats for researchers and institutions.
- * Option for making a soft copy of the patient reports along with motility tracks and images.
- * Very easy and only one-time calibration.
- * Customized reports with custom colors
- * Multi user system with different level of privileges.
- * Multilingual interface (English, French, Italian, Russian, Chinese...etc)

No cost per test for Motility module.

SpermTek Metal Slide is a reusable single chamber to analyze Sperm Concentration and Quantitative assessment of Sperm Motility.



Main Modules

MOT

MOR

VIT

DNA

LEU

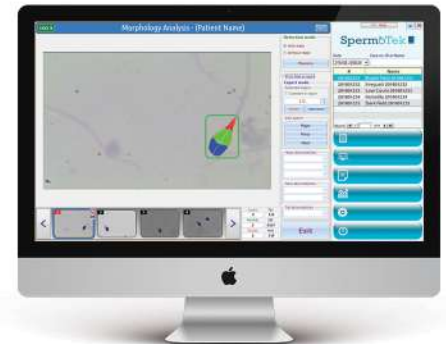
Motility

- * Motility for different velocities and kinematic parameters (VCL, VSL, VAP, MAD, ALH, BCF, LIN, WOB, STR).
- * Ability to delete non sperm detected objects.
- * Compatible with reusable and disposable slides.
- * Smart analysis for detecting irregular movement of sperms.
- * Multi selection/deselection of objects for accurate results.
- * Automatic threshold detection to easily catch all sperms in a given track.
- * Option to print two track images in report



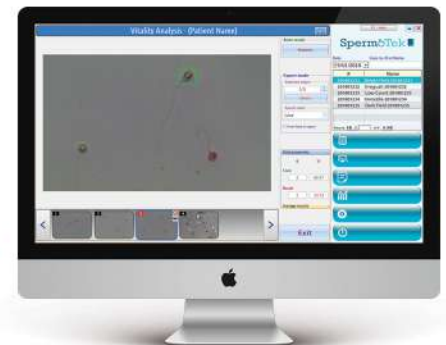
Morphology

- * Auto detection of head and neck defects
- * Morphological and morphometric parameters.
- * Auto calculation of the important TZI, SDI and MAI indices.
- * Ability to add, delete and edit sperm vertices easily and interactively.
- * Showing all sperm properties (shape and size).
- * Option to print up to 4 images in report along with images of defect/normal sperms.



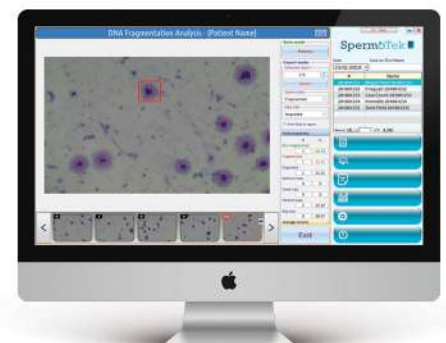
Vitality

- * Easy, fast and low cost staining.
- * Using bright field microscope.
- * Fast analysis with the ability to add, delete and edit any object detected.
- * Option to print two images in report.



DNA Fragmentation

- * Using the SCD (Sperm Chromatin Dispersion) method.
- * Fast analysis with the ability to add, delete and edit any object detected.
- * Classification of sperms according to halo size.
- * Calculation of the important DFI parameter.
- * Option to print two images in report.



Other features of sprmotek soft software :

- Automatic interpretation and generating of appropriate comments according to the patient results.
- Generating of custom reports like Urine, Stool, CBC and Bone marrow with any captured images using the system digital camera and microscope.
- Burn soft-copy of patients reports along with free track of live spermatozoa.



Acrsosome Reaction Test

- * It's the most important process in fertilization.
- * Acrosome reaction occurs when sperm are binding with the zona pellucida.
- * SpermotEK automatically provides the percentage of acrosome intact and acrosome reacted spermatozoa.
- * The test result can provide the evidences in diagnosis of male infertility and help in choice of the methods of ART.



Leukocytes article

- * Leukocytes can weaken the sperm and damage its genetic material
- * Leukocytes can release substances called reactive oxygen species, which can negatively impact sperm.
- * Leukocytes can increase DNA damage of sperm (DNA fragmentation).
- * Leukocytes can cause sperm clumping and affect the motility of sperm
- * Automatic detection of peroxidase positive cells in semen.
- * Analysis is performed in brightfield.
- * Cells are detected automatically by the presence of the enzyme peroxidase in cells.

SFT Sperm Function Test

- ✓ PH
- ✓ Viscosity
- ✓ Vitality
- ✓ Leukocytes
- ✓ Morphology
- ✓ DNA Fragmentation
- ✓ AntiSperm Antibody (IgG & IgA)
- ✓ Nuclear Protein Assay
- ✓ α -Glucosidase
- ✓ Fructose
- ✓ Zinc
- ✓ Acrosome Reaction Test



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Reports

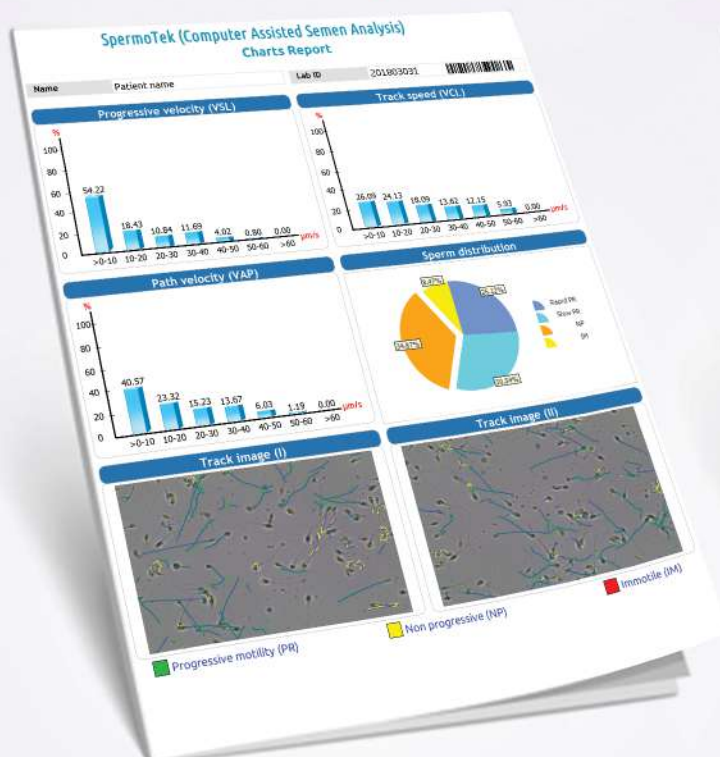
Final Report



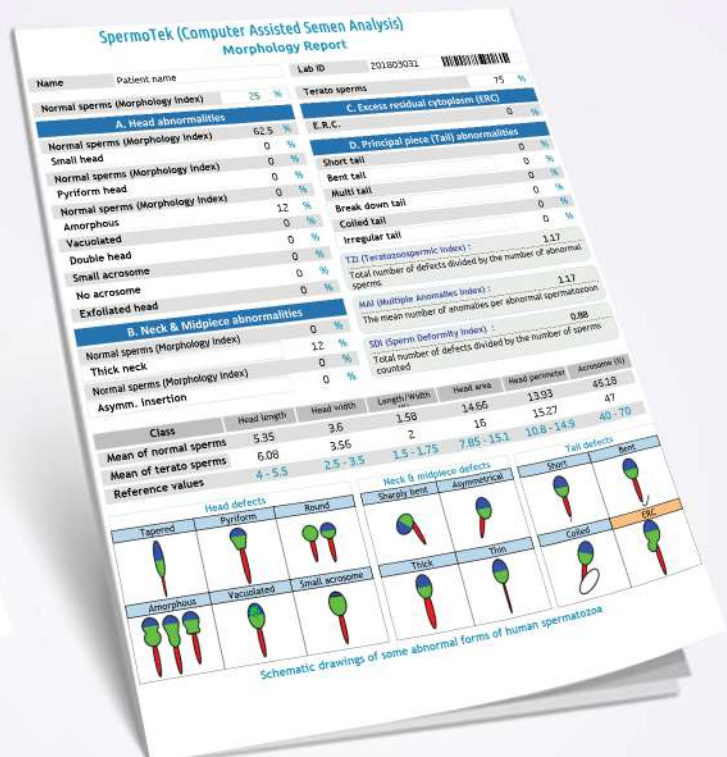
Motility Report



Charts Report



Morphology Report

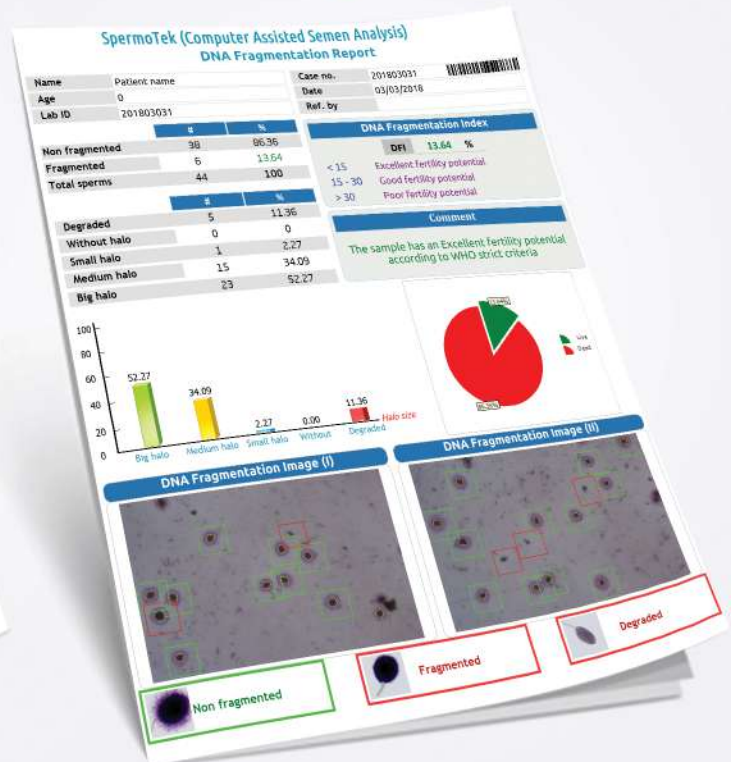


Reports

Vitality Report



DNA Fragmentation Report



Acrosome reaction Report



Leukocytes Report



CE



Enjoy The Difference

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