



Semen DNA FRAGMENTATION Analysis

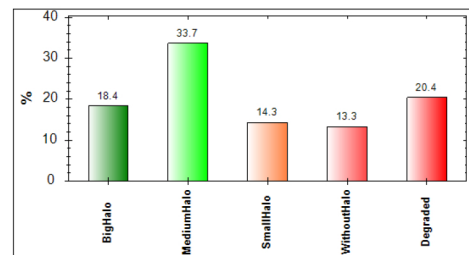
Results provided by CASA (Computer-Aided Sperm Analysis system)

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Name	Mr. DURAISAMISHA DHAWLADHSHA	Date of sample	10-Dec-16		
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DNA fragmentation index	48%	FAIR	> 50 %
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PARAMETERS	VALUES	STATUS
Big Halo	18.4	Without Fragmentation
MediumHalo	33.7	Without Fragmentation
SmallHalo	14.3	With Fragmentation
Degraded	20.4	With Fragmentation
WithoutHalo	13.3	With Fragmentation



DFI	48%	Refer the Below Ranges
DNA Fragmentation Index (%DFI; % sperm cells containing damaged DNA)		
≤ 30% DFI = Excellent sperm DNA integrity		
30 to 40% DFI = Good sperm DNA integrity		
40 to 50% DFI = Fair sperm DNA integrity		
> 50% DFI = Poor sperm DNA integrity		

Note: The above values relate to natural and IUI conceptions

What is the Sperm DNA fragmentation?

Detecting the deferent levels (%) of Genitic (DNA) Integrity (ie) Fragmentation (Damage) inthe sperm cells.

The genetic integrity of the spermatozoan is essential for normal embryo development. A high level of DNA fragmentation in sperm cells may represent a cause of male infertility that conventional examinations - sperm concentration, motility analysis, morphology assessment - cannot detect. Results reported in the scientific literature show regardless of the assisted reproductive technology used, elevated levels of DNA fragmentation above the critical threshold will significantly compromise the possibility of a successful pregnancy

Causes of Sperm DNA Fragmentation

A major causative factor for sperm DNA damage is oxidative stress. Other factors include abnormalities in the regulation of apoptosis, or defects in topoisomerase activity. Increased sperm DNA fragmentation is also associated with:

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|-----------------------------------|---------------------------|------------------------------|----------------------|
| 1.Infection | 4.Leucocytospermia | 7.Sperm cytoplasmic droplets | 10.Febrile illness |
| 2.Elevated testicular temperature | 5.Diet & Stress | 8. Drug use | 11.Cigarette smoking |
| 3.Exposure to environmental | 6.Occupational pollutants | 9. Advanced age | 12.Varicocele |

Indications for male patients who may benefit from the Test

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|------------------------------------|--------------------------------------|
| 1.Unexplained infertility | 6. Arrested embryo development |
| 2.Poor blastocyst development | 7.Multiple failed IVF/ICSI treatment |
| 3.Recurrent miscarriage in partner | 4.Advanced age varicocele |
| 4.Poor semen parameters | 5.Exposure to harmful substances |

Treatmen& Further References:

<http://www.tdlpathology.com/services-divisions/tdl-andrology/sperm-dna-fragmentation>

<https://www.fertilityauthority.com/articles/fertility-clinic-testing-sperm-dna-fragmentation>