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	Sommario/riassunto	The assessment of semen quality is used to identify factors that influence sperm performance and diagnose male infertility. From the earliest works to the present day, a considerable number of analytical techniques have been developed. These tests study many aspects of the morphology and physiology of the spermatozoan; however, their ability to predict male fertility remains low. Some of these techniques have been automated, which can make the test results more objective, but others still require subjective evaluation. The introduction of computer-assisted sperm analysis (CASA) systems and flow cytometry has revolutionized sperm quality analysis in recent decades. However, the use of these advanced techniques remains experimental, with only a few of them having successfully led to practical applications in routine commercial semen evaluation. Future sperm biology research should focus on developing analytical techniques that have a greater capacity to predict male fertility and can be used in both the laboratory and the field. Field adaptation will require progress in automation and simplification, to produce precise, economical and efficient techniques. Nevertheless, as technology advances in these analytical tests and research continues, our greater understanding of male fertility will aid the development of new methods of sperm evaluation.