This Springer Brief analyzes varicocele from a novel approach, and provides the reader with a comprehensive view of its scientific and clinical significance. The Brief covers all the important aspects of varicocele related to infertility, from epidemiology to assisted reproduction techniques, contemplating pathophysiology, semen analysis, specialized sperm function tests, and clinical management including all available treatment options form three distinct perspectives, i.e., current concepts, consensus and controversies. Each topic is addressed using the same template, offering the best information from all angles to readers. This SpringerBrief is aimed at both clinicians and scientists involved in the study and care of male and female fertility, and is written by a team of three internationally recognized authors with expertise in andrology and male infertility. The text is the first of its kind, and presents an invaluable tool both for the basic scientists with an interest in reproductive medicine and for clinicians working in the field of infertility.