

---

## Preface

Male fertility parameters are declining globally. The Y chromosome is shortening over generations and may eventually disappear in course of evolution. Colleagues have shown a higher proportion of X chromosome-bearing sperm in the semen and have suggested that there is a preferential elimination of Y chromosome-bearing sperm during their passage through the male genital tract. However, male embryos are better protected in womb. At birth, for 100 females 106 males are born. Males in each age group are more prone to morbidity and mortality, and at the end, elderly females outnumber men in most parts of the world. Males retain their fertility till the ripe old age, whereas females lose theirs in the middle phase of life. Males are biologically driven to be aggressive and polygamous probably to amplify gene diversity. Male sexuality and reproduction have always remained an enigma.

Truth is variously presented by writers in their own unique way; any one book cannot serve all and be appreciated universally. Each book serves a particular group of readers. Therefore, many books may be needed to state the same knowledge keeping corresponding readers in mind. We too present here the current knowledge of andrology in our own unique way for our potential readers.

This book addresses various aspects of male reproduction ranging from mind to testis. This book has been designed for all students and practitioners across disciplines of the medical science. We have kept the language simple so that an inquisitive person with a background of biology too may read it. The scope of our book is reflected by wide range of topics covered by our contributors.

This book has 30 chapters ranging from chromosome to yoga. The basis of maleness lies in the Y chromosome. Reproductive functions depend upon the development of male organs from embryo to manhood. Testis, the male gonad, produces hormones and sperm; latter are ejaculated in semen secreted by accessory sex glands. The testicular events are under neuroendocrine regulation which coordinates reproductive life from puberty to andropause and to the end of life.

Biology is as important as psychology in the control of reproduction. Behaviors are rooted in the brain. Various brain areas and neural circuits regulate male behaviors. Brain sexual polymorphism is the basis of homosexuality and transgenders. Neurophysiology has always been complex to understand. But, we have attempted to present it in a simpler way.

Reproductive organs receive systemic influences, too. This book describes roles of metabolic, immune and thyroid status in reproduction. The book has chapters on

male reproductive pathophysiology. Principles of diagnosis and management are also included. The last section deals with contraception and yoga. The traditional wisdom of yoga has been used for millennia to enhance sexual and reproductive experience.

Learning objectives are given in the beginning of each chapter to provide a quick overview of the content. Concepts are developed using flow charts, tables and illustrations. At the end of each chapter, a few key questions are given to the reader for self-evaluation.

We hope that this book will serve basic medical scientists, urologists, nephrologists, surgeons, andrologists, endocrinologists, gynaecologists, nurses, counsellors and also the students of biological sciences who want to study reproduction in human male.

We convey our sincere thanks to Dr. Manish Jain, Dr. Bodhana Dhole, Ms. Amanpreet Kaur Kalsi and artist Mr. Ramchandra Pokale for their painstaking efforts in making this book in its present form.

Your suggestions regarding this book will be welcomed. Wish you a happy reading!

Anand Kumar  
Mona Sharma

<http://www.springer.com/978-981-10-3694-1>

Basics of Human Andrology

A Textbook

Kumar, A.; Sharma, M. (Eds.)

2017, XIX, 536 p. 160 illus., 110 illus. in color.,

Hardcover

ISBN: 978-981-10-3694-1