



普通高等教育“十三五”规划教材  
全国高等医药院校规划教材

英文原版改编版

# Obstetrics and Gynecology

# 妇产科学

留学生与双语教学用

*A Comprehensive Textbook of Obstetrics and Gynecology*

[印度] 萨达娜·古普塔 著  
Sadhana Gupta Original Editor

薛凤霞 马玉燕 主编

XUE Fengxia MA Yuyan Chief Editors of Adaptation Edition

清华大学出版社





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北京

## 内 容 简 介

本书系统地介绍了妇产科学的基本知识，包括妇产科的解剖、生理、孕产期保健、产科常见并发症和合并症及各种妇科疾病的诊断与治疗等。内容简明易懂，图文并茂，适合作为临床医学专业本科生中英文双语教学、留学生英文教学、硕士研究生和博士研究生教学的妇产科学教材。本书也可以作为其他医学相关专业学生和青年医生学习妇产科学的参考教材。

Sadhana Gupta

A Comprehensive Textbook of Obstetrics and Gynecology

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## 注 意

由于医学科技的发展,该领域的理论知识和临床实践在不断变化。随着新的研究与经验不断扩充我们的知识结构,在实践、治疗和用药方面做出适当的调整是必要或适宜的。建议读者检查相关操作的最新信息,或检查每一用药生产厂家所提供的最新产品信息,在临床执业医师的指导下确定药物的推荐剂量、服用方法、服用时间以及相关禁忌证。经治医师根据对患者的了解和相关经验,确立诊断,确定每一位患者的服药剂量和最佳治疗方法,并采取适当的安全预防措施,是其职责所在。不论是出版商还是著作者,对于在本出版物使用过程中出现的任何个人损伤和(或)财产损失,均不承担任何责任。

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## **General Foreword**

### **总序言**

随着中国政治、经济、文化的快速发展，中国软实力和国际影响力的不断提升，“留学中国计划”的逐步实施，越来越多的外国人认识到留学中国的未来价值，来华留学生规模不断扩大。2013年，有来自200个国家和地区的346 499名外国留学生在我国746所高等院校和科研机构学习或进修，我国已经成为亚洲最大的留学目的地国家。

近年，来华学习医学的留学生人数增长尤为迅猛，目前来华学习医学的留学学历生人数已位居来华留学学历生人数的首位，2013年占比高达21.76%，为29 048名。

为了维护我国高等教育的国际声誉，教育部高度重视来华医学留学生教育教学质量，不断加强对医学留学生教育教学的规范和管理，多种措施付诸实施。2007年教育部即制定了《来华留学生医学本科教育（英语授课）质量控制标准暂行规定》，要求招生院校严格落实执行。2013年7月，教育部国际合作与交流司下达了《关于对招收本科临床医学专业（英语授课）来华留学生的高等学校进行专项工作检查的通知》，委托中国高等教育学会外国留学生教育管理分会组成专家组对招生院校进行专项工作检查。2013年8月，全国性的“来华留学生（医学）教学专业委员会”成立大会暨第一次学术研讨会在天津医科大学成功召开。2014年上半年，教育部国际合作与交流司又组织专家组对部分医学院校实施了飞行检查。2014年6月，“来华留学医学教育2014学术研讨会暨首届医学院校国际教育学院院长论坛”在安徽医科大学举办。

来华留学生的教学质量是来华留学教育事业可持续发展的核心保障，来华留学生教育的教材建设是保障和提升教学质量非常重要的手段。适合来华医学留学生使用的教材的需求越来越迫切，临床医学专业的教材长期匮乏和不足，教材编写、教材内容、教材形式、教材版权等都需要进行整合和改进完善。

在教育部国际合作与交流司的指导和中国高等教育学会外国留学生教育管理分会的支持下，众多医学院校的领导和专家经过多次讨论、磋商，决定成立“来华医学留学生教育教材建设专家指导委员会”，委托天津医科大学和清华大学出版社共同承担全国性临床医学专业英文版立体化教材编写和出版的具体组织工作。

天津医科大学有近17年的英语授课培养外国留学生的历史，在来华医学留学生教育的实践方面开始较早，是教育部指定的第一批计划招生全英文临床医学专业的30余所院校之一，也是教育部首批批准的“来华留学教育示范基地”，设有教育部来华留学英语教学师资培训中心（医学），至今已举办6期培训班，为全国52所医科院校培训英语授课教师364人，所编教材在全国30余所西医院校教学中被借鉴或使用，在全国医学高等院校来华留学生教育教学

领域里具有代表性和很大的影响力。

清华大学出版社在高等教育综合出版领域里，排名我国第二位，是以出版全方位、多学科、立体化的高等教育教材为主的大社；上级主管单位为教育部，主办单位是清华大学，高质量、创新型、探究型的特色教材是其出版的重点任务，也是其肩负的社会职责所在，其所具有的强烈的社会责任感、主动性和积极性值得肯定。

据悉，该套教材近 50 种，主要供临床医学留学生、七年制或八年制医学生、医学本科生英语或双语教学使用。部分教材由我国长期从事医学留学生教育的教授、学者编写，其余大部分教材由清华大学出版社从多家国外出版社引进，改编出版，以适应我国临床医学专业留学生课堂教学和临床实习所需。

该套教材的陆续出版，是我国对高校来华留学生教育教材系列化、专门化的首次探索。希冀其会对全面提升来华医学留学生教育质量水平，对规范来华医学留学生教育的教材建设，甚至对其他学科的留学生教材建设，起到积极的示范效应和引领性作用。

这是一个良好的开端，希望该套教材在今后教学中经过不断探索、不断总结，得到修订，日臻完善。

中国高等教育学会外国留学生教育管理分会  
副会长兼秘书长

苏向民

2014 年 10 月

## Preface

### 前言

In recent years, Obstetrics and Gynecology (OB/GYN) has been independently and widely learned by medical students including foreign students. Meanwhile, more and more foreign students come to China applying for Bachelor's Medicine & Bachelor's Surgery (MBBS). It is very imperative and beneficial to edit an English textbook of OB/GYN for undergraduate program for international students. Recently, supported and organized by Tsinghua University Press and Tianjin Medical University, twenty-six OB/GYN experts and scholars from fifteen Universities in China make contributions to this textbook, which is based on the structure and profile of "A comprehensive Textbook of Obstetrics and Gynecology" written by Professor Sadha Gupta and published by Jaypee Brothers Medical Publishers.

According to the depth of Chinese undergraduate textbook of OB/GYN and suitable for undergraduate program for international students, this adaptation is the carefully nurtured descendant of original book and retains most content and chapters of the original version. We have reorganized some chapters to achieve a total construction of systemic knowledge. With referring to some traditional textbooks, such as the William's Obstetrics and Berek & Novak's Gynecology, we tried to meet the basic needs of medical students. It covers five sections including Basic sciences in obstetrics and gynecology, Gynecology, Obstetrics, Appendices and Annexures, which is divided into 56 chapters. In first section, Basic sciences in obstetrics and gynecology, we clarify the concept of Transformation Zone and correct some labeling faults in figures. In second section, Gynecology, sexually transmitted diseases treatment guidelines(Centers for Disease Control and Prevention,2015), FIGO new classification for AUB(2011), WHO classifications for Tumors of females reproductive organs (2014 version) , the newest gynecological tumor FIGO staging system, are all updated. In third section, Obstetrics, some updates in diagnosis criteria and management strategies were made according to guidelines of ACOG(American college of Obstetricians and Gynaecologists) and RCOG(Royal college of Obstetricians and Gynaecologists), such as classification of hypertensive disorder of pregnancy(2013), the newest concept of stages of labor, diagnostic criteria of gestational diabetes and definition of postpartum hemorrhage in cesarean delivery. In the sections of Appendices and Annexures, WHO Medical eligibility criteria for contraceptive use, 15th(2015) are introduced. Meanwhile, some full-color illustrations and photography including ultrasound sonography and endoscopy in gynecology are reproduced and

some misprints are corrected. The goal of this adaptation is to provide a comprehensive summary of the specialty of Gynecology and Obstetrics and make the readers to have clear and updated knowledge of this field.

We gratefully acknowledge the many individuals who contributed to this book. We extend our thanks to Jaypee Brothers Medical Publishers, who provide the copyright of the original version. We are especially grateful to Tsinghua University Press and editor Jun Li. We appreciate adaption secretary Jintian Zhang, who diligently evaluated and assisted the entire project from the initial manuscript through page proofs.

We have no doubt that this book will be of great value to both international medical students as well as the practitioners in this field who strive to improve their level of professional English. Also, we hope this book to promote MBBS education, and more international students to pass qualifying examination and get good assessment in clinical practice. We welcome teachers, undergraduate and residents could provide their suggestion and opinions in the processing of using the book, which can make its republication more perfect.

Editors

July 8, 2016

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# Section One

**Basic Sciences in Obstetrics  
and Gynecology**



# 1

# Anatomy

*Teaching is only demonstrating that it is possible,  
Learning is making it possible for yourself.*

## ANATOMY OF FEMALE GENITAL TRACT

An understanding of the anatomy of the female pelvis, internal and external genitalia and related structure is crucial to have clear concept of the subject of obstetrics and gynecology. It is also important to appreciate that while the basic facts of anatomy remains the same. Our understanding of specific anatomic relationship and the development of new clinical and surgical correlation continues to evolve.

### Anatomy of External Genitalia

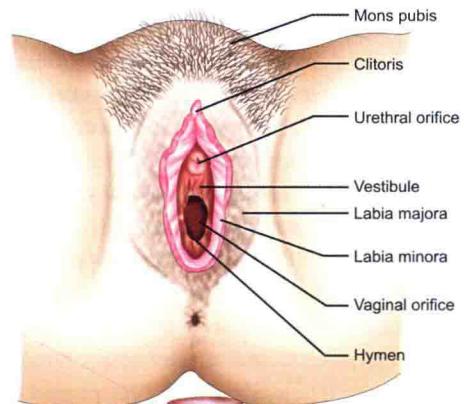
Urogenital triangle includes the external genital structure and the urethral opening. These external structures cover the superficial and deep perineal compartments and are known as vulva.

#### Vulva

Vulva is an ill defined area which comprises the whole of the external genitalia and conveniently includes the perineum. It is bounded anteriorly by the mons veneris (Pubis), laterally by the mons pubis and posteriorly by the perineum (Fig. 1.1).

**Mons pubis:** It is a triangular eminence in front of pubic bones that consist of adipose tissues covered by hair bearing skin up to its junction with the abdominal wall.

**Labia majora:** Labia majora is a pair of fibroadipose folds of skin that extend from mons pubis, downward and backward to meet in midline in front of the anus at the posterior fourchette. They are best developed in childbearing period of life. In prepubertal children and in postmenopausal women the amount of subcutaneous fat in the labia majora is relatively small



**Fig. 1.1: Anatomy of external genitalia**

and the cleft between labia is prominent.

They include the terminal extension of the round ligament and occasionally a peritoneal diverticulum—the canal of Nuck. Labia majora are covered by skin with scattered hairs and are rich in sebaceous, apocrine and exocrine glands which produces a characteristic aroma and from which the rare tumor of hidradenoma of the vulva is probably derived.

The adipose tissue is richly supported with venous plexus which may produce hematoma, if injured during childbirth. **The labia majora are homologous with the scrotum in the male.**

**Labia minora:** The labia minora are the folds of skin which lie on the inner aspect of the labia majora with which they merge posteriorly to form fourchette and are separated into two folds as they approach the clitoris anteriorly. The anterior folds unite to form the prepuce or hood of the clitoris and posterior fold form the frenulum of the clitoris as they attach to its inferior surface. Fourchette is a thin fold of skin, indented on