

Developed by the American Urogynecologic Society

Pelvic Floor Health

Your Guide to
Pregnancy and
Postpartum Care



Pelvic Floor Health

Your Guide to Pregnancy
and Postpartum Care



Pelvic Floor Health: Your Guide to Pregnancy and Postpartum Care was developed by a group of experts in urogynecology, pelvic floor health, and obstetrics and gynecology.

WRITING GROUP MEMBERS

Linda Brubaker, MD, MS
(Writing Group Chair)
University of California, San Diego
La Jolla, CA

Joan Blomquist, MD
GBMC Healthcare
Towson, MD

Olivia Cardenas-Trowers, MD
Mayo Clinic
Jacksonville, FL

Colleen Fitzgerald, MD
Loyola University Medical Center
Maywood, IL

D. Yvette LaCoursiere, MD, MPH
University of California, San Diego
La Jolla, CA

Christina Lewicky-Gaupp, MD
Northwestern University
Chicago, IL

Jessica McKinney, PT, DScPT, MS
Andrews University, Berrien Springs, MI;
Renovia Inc., Boston, MA
Mama, LLC., Canton, MA

Melanie Meister, MD, MSCI
University of Kansas Health System
Kansas City, KS

Kate Meriwether, MD
University of New Mexico
Albuquerque, NM

Ingrid Nygaard, MD, MS
University of Utah Health
Salt Lake City, UT

Megan O. Schimpf, MD, MHSA
University of Michigan
Ann Arbor, MI

Elisa Trowbridge, MD
University of Virginia Health
Charlottesville, VA

CONTRIBUTORS

Veronica Valderrama, AUGS Senior Director of Publications
Deirdre Allen, MPS, Editorial Consultant
Laura Carter & Regina Troyer, Book Designers
Marie Dauenheimer, MA, CMI, FAMI, Illustrator

Copyright 2022 American Urogynecologic Society

Print: 979-8-9865893-0-5

Ebook: 979-8-9865893-5-0

Library of Congress Control Number: 2022945364

12345/65432

This document reflects clinical and scientific advances and expert opinion as of the date issued, and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Its content is not intended to be a substitute for professional medical judgment, diagnosis, or treatment. The ultimate judgment regarding any specific procedure or treatment is to be made by the physician and patient in light of all circumstances presented by the patient.

ABOUT AUGS

The American Urogynecologic Society (AUGS) is the premier non-profit organization representing health care professionals dedicated to treating female pelvic floor disorders. Founded in 1979, AUGS members include practicing physicians, nurse practitioners, physical therapists, nurses, and researchers from many disciplines.

As the leader in urogynecology, AUGS drives excellence in comprehensive care for women with pelvic floor disorders. AUGS is the primary source of clinical and scientific information and education in urogynecology for both health care professionals and the public.

www.augs.org | www.voicesforpfd.org

SUPPORTING SOCIETIES

Support from the following societies denotes that the contents of this book are considered to be of educational value, although the societies may not agree with every recommendation in the document.

- European Urogynaecological Association (EUGA):
www.eugaoffice.org
- International Urogynecological Association (IUGA):
www.iuga.org; www.yourpelvicfloor.org
- Italian Association of Urogynecology (AIUG):
www.aiug.eu/aiug.asp
- Mediterranean Incontinence and Pelvic Floor Societies (MIPS):
www.mipsnet.org
- Society for Maternal-Fetal Medicine (SMFM):
www.smfm.org; www.highriskpregnancyinfo.org
- Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction (SUFU):
www.sufuorg.com; www.sufuorg.com/resources/patients.aspx

CONTENTS

Preface	vii
Introduction	ix
Chapter 1: Common Questions About Pelvic Floor Problems ..	1
Chapter 2: Pelvic Floor Health During Pregnancy	5
Bladder Health: 5	
– Urinary Incontinence: 5	
– Causes of Urine Loss During Pregnancy: 7	
– Evaluating Bladder Symptoms: 7	
– Treatment Options for Bladder Symptoms: 8	
– Pelvic Floor Muscle Training: 8	
– Urinary Tract Infection: Signs and Symptoms: 9	
Pelvic Muscle Health: 10	
– Pelvic Floor Muscles: 10	
– Assessing Pelvic Floor Support: 12	
– Kegel Exercises: 14	
– Regular Exercise and Its Effect on Delivery: 16	
– Resources for Finding a Physical Therapist: 17	
Musculoskeletal Health: 18	
– Changes in Musculoskeletal Health: 18	
Chapter 3: Preparing for Delivery	25
Type of Delivery: 25	
– Vaginal Delivery: 26	
– Cesarean Delivery: 26	
How Delivery May Change Your Pelvic Floor: 27	
– Tears and Episiotomy: 27	
– Perineal Pain and Swelling: 29	
– Bladder Emptying: 30	

Chapter 4: Pelvic Floor Postpartum Care. 33

Care You May Need After Delivery: 33

- Cleaning and Risk of Infection: 33
- Bowel Movements: 34
- Anal Sphincter Injury: 34

Following Up With Your Clinician After Delivery: 35

- When to Notify Your Clinician: 36

Chapter 5: Postpartum Exercise With the Pelvic Floor in Mind. 39

Tissue Healing: 39

Basic Day-to-Day Physical Activity and Tasks: 40

Pelvic Floor Muscle Exercise: 44

Apps and Devices for the Pelvic Floor: 45

Structured Physical Exercise: 47

Physical Therapy: What to Expect: 48

Chapter 6: Postpartum Changes 53

Hormonal and Emotional Changes: 53

- Perspiration: 54
- Resuming Menstruation: 54

Physical Changes: 55

- The Uterus After Childbirth: 56
- Postpartum Vaginal Bleeding: 56
- Less Common Medical Conditions After Delivery: 57
- Cardiovascular Changes: 58
- Gastrointestinal Changes: 59
- Varicose Veins in the Vulva: 60
- Vaginal Changes: 60

Chapter 7: Postpartum Pelvic, Bladder, and Bowel Symptoms 63

Pelvic Floor Muscle and Nerve Injury After Delivery: 64

Pelvic Floor Strength and Sensation: 65

– Healing Process and Timeline: 66

Urinary Incontinence: 67

Bowel Control: 70

Pelvic Organ Prolapse: 73

– Prolapse Risks and Treatment: 74

– Sex: 75

– Prolapse Surgery: 76

Chapter 8: Considerations for Future Childbirth 79

Type of Future Delivery: 79

Pregnancy Spacing and Birth Control: 80

Conclusion 83

Glossary85

Bibliography91

Additional Clinical References93

PREFACE

For most women, childbirth is one of the most significant events in their lives. Fortunately, most women have uncomplicated deliveries and steadily recover over the next few months after childbirth. The authors of this book are dedicated clinicians with years of experience helping women regain their pelvic health, including when symptoms occur after giving birth. As pelvic floor specialists, clinicians and physical therapists who treat common pelvic floor problems in adult women, we know that women who develop new bladder or bowel control symptoms after childbirth may not know where to find quality information. This lack of information is all too common in women's health. The experts who share their thoughts in this book wanted to provide information about changes you may experience during your pregnancy or after your delivery. All of us want these two messages to be loud and clear:

You are not alone.
Please don't suffer in silence.

Information and clinical care are available—and you deserve both. Feel free to share this book with friends and family members. And we encourage you to talk about pelvic health with confidence based on the information you learn in this book and the resources we provide. Pelvic health is women's health. Now you know!

LINDA BRUBAKER, MD, MS
Writing Group Chair

INTRODUCTION

Childbirth affects a woman's life in many ways, whether she has given birth once or several times. The experts who were selected by the American Urogynecologic Society (AUGS) to develop this book know that many women experience pelvic floor disorders such as urinary and bowel leakage, sexual problems, and poor body image in pregnancy and after childbirth. In fact, most women (64%) still have at least one pelvic floor problem that bothers them a year after childbirth. While not all the changes that occur in women's bodies and in their lives during pregnancy and after childbirth are negative, some of them can cause uncertainty or change your sense of wellbeing. Some women are comfortable seeking advice and guidance from other women on pelvic floor issues, and for others these topics may be challenging to discuss with friends or family.

As experts in pelvic floor health, we have written this book to provide expert advice and guidance on these sensitive topics that affect women's health. This book provides a broad look at changes in a woman's body before, during, and after childbirth, many of which may have a big effect on her life for a short time or for many years into the future. The contributors to this book are women and many of us are mothers ourselves. This is not a medical book; we do not want you to feel lost in medical words or worry you with confusing warnings. It was our intent to present this information in a way that is easy to read and understand. We want you to get answers to important questions, prepare for the expected and unexpected, and know where to go for answers not found in this book. Never hesitate to speak directly with your own clinician about pelvic floor concerns.

This book will begin with frequently asked questions by new and experienced mothers. We will then address different parts of the pregnancy and childbirth experience, including what to expect during pregnancy, how to prepare for delivery, and how to care for yourself after childbirth (postpartum). We will go into some detail about what is common and what to expect postpartum, and how this is affected by issues that arise during childbirth such as perineal

tears or hormonal changes after a birth. We will explore problems that arise in women that involve the pelvic floor, including bowel and bladder changes, sexual health, and recovery from tissue and nerve injury. Finally, we will discuss considerations for future pregnancies and births. Each chapter will discuss what different issues are called, how likely they are to happen to you or to continue if they arise, how to figure out if you have these issues, how to address or seek treatment for them, and how to talk to your clinician about them.

It is key to remember that no two pregnancies, births, or postpartum experiences are exactly alike, even in the same woman. First-time mothers may have a very clear idea of what they expect from their bodies and their health during pregnancy and postpartum, or they may have no idea what to expect. The most experienced mothers can experience new joys and challenges in having more children, and they may encounter issues with bladder or bowel function, sexual health, or other symptoms that they never had during or after their earlier pregnancies. Although this uncertainty may seem intimidating at first, it is important to remember that you are not alone. Billions of women throughout history and throughout the world have experienced pregnancy, childbirth, and childbirth recovery, and have wisdom to share. We want to recognize that these women are the real source of information about changes in the pelvic floor before and after childbirth. There are thousands of professionals worldwide (nurses, midwives, doctors, physical therapists, and more) who are dedicated to treating, preventing, and researching these issues. Knowledge and answers are out there, and we want women to have them.

Throughout this book, we will reference “Suggested Reading” so you can get more in-depth information about topics that concern you. We hope that this book, and the resources it provides, can help you learn a bit more about yourself and your body during pregnancy and after childbirth. We also hope it helps make this experience a better one for you.

Note: *Glossary terms are noted in bold and italic font and defined at the end of the book. For a list of sources used in the development of this book, see the “Bibliography” also at the end of the book.*