Textbook of Obstetrics and Gynaecology
A life course approach

The Textbook of Obstetrics and Gynaecology: a life course approach is the latest edition of the Dutch Textbook Obstetrie en Gynaecologie, de voortplanting van de mens, which has been the leading handbook in Dutch medical and midwifery schools since 1993.

In this current edition, for the first time, a life course approach to women’s health is applied to the clinical practice of Obstetrics and Gynaecology. Life is considered a continuum ‘from the cradle to the grave’, where each life stage affects the individual’s health and wellbeing and that of future generations. This approach in obstetric and gynaecological patient care provides a path towards healthy ageing, with specific attention for lifestyle, prevention and social context. By managing not only disease, but also the health of the population, women’s healthcare providers will deliver future care in a much more multidisciplinary fashion.

The textbook’s structure and content have been completely revised and rewritten according to the life course approach, and the volume has been considerably condensed by an outstanding team of authors. The illustrative material has also been renewed, and now includes 3D video animations and films of five surgical procedures in the e-book version.

The textbook should serve as a reference not only for medical and midwifery students but also for gynaecologists in training and other clinicians who have the privilege of caring for women and their families, from the earliest moments in life onwards.
## Contents

**Part I  Introduction to a life course approach in obstetrics and gynaecology**

1. **Life course approach in women’s health** ............................................................... 7  
   Romy Gaillard, Keith M. Godfrey, and Vincent W.V. Jaddoe

2. **Life course approach in obstetrics and gynaecology for patient care, education and research** 17  

3. **Reproductive medicine: ethical reflections** .......................................................... 25  
   Guido M.W.R. de Wert and Wybo J. Dondorp

4. **Anatomy of the pelvis, pelvic organs and reproductive system** ......................... 49  
   Marco C. DeRuiter, Gerrit-Jan Kleinrensink and Bernadette S. de Bakker

5. **Essentials of history taking and physical examination** ........................................ 83  
   Emer Hageraarts and Anna P. Gijzen

**Part II  Conception and foetal health**

6. **Preconception health and care** ............................................................................. 105  
   Sam Schoenmakers, Maria P.H. Koster and Régine P.M. Steegers-Theunissen

7. **Embryonic, placental and foetal growth and development** ................................. 119  
   Wessel Ganzevoort, Rebecca C. Painter, Aleid G. van Wassenaer-Leemhuis, Bernadette S. de Bakker, Régine P.M. Steegers-Theunissen and Marijke M. Faas

8. **Birth and the neonatal period** ............................................................................... 137  
   Rob (H.R.) Taal, Irwin K.M. Reiss, Enrico Lopriore and Vincent W.V. Jaddoe

**Part III  Childhood and adolescence**

9. **Paediatric and adolescent gynaecology** .................................................................. 159  
   Sabine E. Hannema and Marianne J. ten Kate-Bootj

10. **Sexual Health** ......................................................................................................... 175  
    Rik H.W. van Lunsen and Ellen T.M. Laan

11. **Contraception** ....................................................................................................... 195  
    Frans J.M.E. Roumen, Rik H.W. van Lunsen and Suzy M. de Swart

**Part IV  Reproductive health**

12. **The normal and abnormal menstrual cycle** ......................................................... 227  
    Joop S.E. Laven and Nils B. Lambalk

13. **Infertility** ................................................................................................................ 243  
    Jesper M.J. Smeenk and Simone L. Broer

14. **Assisted reproductive technology** ........................................................................ 261  
    Bart C.J.M. Fauser and Didi D.M. Bruut
Contents

Part V Maternal adaptation to pregnancy

16 Routine antenatal care, antenatal testing and foetal therapy .......................................................... 305
Arie Franx, Mireille N. Bekker and Dick Oepkes

17 Maternal adaptations .......................................................................................................................... 319
Sicco A. Scherjon

18 Early pregnancy disorders .................................................................................................................. 351
Rebecca C. Painter, Norah van Mello, Mariëtte Goddijn, Merel M.J. van den Berg, Christianne Lok,
Nienke van Trommel and Joris A.M. van der Post

19 Gestational disorders ......................................................................................................................... 369
Marjon de Boer, Pin W. Teunissen and Christianne J.M. de Groot

20 Chronic risk conditions and pregnancy ............................................................................................ 383
Marc E.A. Spanderman, Hilmar Bijma, Johannes J. Duvekot, Mariëlle G. van Pampus,
Elisabeth van Leeuwen, Jerome M.J. Cornette, Titia A.T. Lely, Louis L.H. Peeters
and Chahinda Ghossein-Doha

21 Delivery and puerperium .................................................................................................................... 413
Esteriek de Miranda, Corine J.M. Verhoeven, Petra (C.A.M.) Bakker and
Marianne Prins

Part VI Reproductive aging

22 Abnormal uterine bleeding ................................................................................................................ 473
Marlies Y. Bongers, Peggy M.A.J. Geomini, Wouter J.K. Hehenkamp and Mark Hans Emanuel

23 Pelvic floor disorders ........................................................................................................................ 489
Huub (C.H.) van der Vaart, Pieternel Steures and Jan-Paul W.R. Roovers

24 Benign pelvic mass ............................................................................................................................. 509
Toon van Gorp and Peggy M.A.J. Geomini

25 Cervical premalignancies and cervical cancer ................................................................................ 523
Ruud L.M. Bekkers and Jurgen M.J. Piek

Part VII Peri- and postmenopausal health

26 Breast cancer .................................................................................................................................. 543
Mireille Lagendijk, Lindy A.M. Santegoets and Linetta B. Koppert

27 The menopause, the perimenopause and the postmenopause ....................................................... 555
Dorenda K.E. van Dijk, Maryam Kavousi, Monique M.A. Brood-van Zanten, Loes Jaspers and
Mick A.A. van Trotsenburg

28 Uterine cancer and premalignant lesions ......................................................................................... 575
Hanny (J.M.A.) Pijnenborg, Koen K. van de Vijver and Roy F.L.P. Kruijswagen

29 Ovarian cancer .................................................................................................................................. 589
Marian J.E. Mourits, Florine A. Eggink, Mathilde Jalving, Marco de Bruyn,
Joost Bart and Hans W. Nijman
<table>
<thead>
<tr>
<th>Page</th>
<th>Topic</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Vulvar cancer and vulvar premalignancies</td>
<td>Joanne A. de Hullu, Irene A.M. van der Avoort, Maaike H.M. Oonk and Mariette I.E. van Poelgeest</td>
</tr>
<tr>
<td>31</td>
<td>Care for the elderly woman</td>
<td>Marcel G.M. Olde Rikkert and Didy E. Jacobsen</td>
</tr>
</tbody>
</table>

Supplementary information: 631
Index: 632
This new ‘Textbook of Obstetrics and Gynaecology: a life course approach’ marks the end of seven very successful editions of the Dutch Textbook ‘Obstetrie en Gynaecologie, de voortplanting van de mens’. Since the first edition was released in 1993, it has not only been the leading textbook in the curricula of Dutch medical and midwifery schools but has also played an important role in the training of gynaecologists and served as a book of reference for doctors of all specialities as well as midwives. Its high standards can be attributed to the vision and dedication of the successive editors Professor P.E. Trefiers (first two editions) and Professor M.J. Heineman (third to seventh edition) and a large team of vastly committed authors, all leading Dutch gynaecologists in their fields.

These editions followed up on the textbook ‘De voortplanting van de mens. Leerboek voor Obstetrie en Gynaecologie’ edited by Professor G.J. Kloosterman, the first edition of which was released in 1973. The fast development of translational and clinical research and changing perspectives in how care should be provided made a new standard textbook necessary in 1993.

The same is true now, as the current understanding directs us towards a life course approach to women’s health which should be leading in the way care is provided. As illustrated by the life cycle figure on the front cover, a woman’s life is a continuum composed of a series of bounded life stages ‘from the cradle to the grave’. This continuum biologically starts during parental preconception gametogenesis and subsequent embryonic and foetal development and will transpire throughout life. The different life course stages of each individual consecutively prepare and determine health outcome and wellbeing (fig. 1). Intrinsically, this is not limited to one’s own lifetime as the reproductive health of couples also affects the health of future generations.

Such a life course approach in obstetric and gynaecological patient care provides a path towards healthy aging, with specific attention for lifestyle, prevention and the social context. This requires a change in mindset of women’s healthcare providers to feel responsible not only for managing disease but also for managing health. Both in clinical care and research, development of new strategies will focus on the earliest origins of life. On the other side of the spectrum of life providing chronic care for women with oncological disease and at old age will evolve towards improving and prolonging wellbeing and quality of life as long as deemed acceptable (fig. 2).

As a result, obstetricians and gynaecologists will provide future care in a much more multidisciplinary fashion – gender oriented and tailored to the individual – within hospitals. They may also adapt a coordinating role in care within the community enabled by the developments of networking medicine using the potential of digital technology and care.

This new textbook is a treatise on the clinical practice of obstetrics and gynaecology in which the life course approach has been applied for the first time. The structure of the book and contents of the chapters have been completely revised and rewritten accordingly and the volume has been considerably condensed by an outstanding team of largely new authors. As international textbooks are increasingly used in medical curricula, it was decided to publish in the English language, thereby also making it available for an international audience. Special attention has been given to renewing all the illustrative material. The e-book version of the text incorporates modern multimedia products such as 3D video animations on physical examination and birth as well as leading edge films of five common operative procedures from a surgeon’s point of view.

The textbook should serve as a reference not only for medical and midwifery students but also for gynaecologists in training and other clinicians who have the privilege of caring for women and their families, from the earliest moments in life onwards.

Eric A.P. Steegers
Bart C. Fauser
Carina G.J.M. Hilders
Vincent W.V. Jaddoe
Leon F.A.G. Massuger
Joris A.M. van der Post
Sam Schoenmakers
**Figure 1** Shifts in paradigms related to a life course approach

**Figure 2** A life course perspective for maintenance of health (Adapted from: The implications for training embracing a life course approach to health. World Health Organization 2000)