

DE GRUYTER

*Thomas Römer*

# DIAGNOSTIC HYSTEROSCOPY

A PRACTICAL GUIDE

2ND EDITION

POCKET GUIDES FOR  
GYNAECOLOGISTS

DE  
G

Pocket Guides for Gynaecologists

Editors: Thomas Römer, Andreas D. Ebert



Thomas Römer

# Diagnostic Hysteroscopy

A practical guide

2<sup>nd</sup> Edition

DE GRUYTER



Professor Dr. med. Thomas Römer  
Evangelisches Krankenhaus  
Köln-Weyertal gGmbH  
Weyertal 76  
50931 Köln  
Thomas.Roemer@EVK-Koeln.de

Translated by Dr. Christina Römer, Cologne.

This book has 134 figures and 6 tables.

ISBN 978-3-11-022497-9

*Library of Congress Cataloging-in-Publication Data*

Römer, T. (Thomas)

[Hysteroskopischer Wegweiser für Gynäkologen. English]

Diagnostic hysteroscopy : a practical guide / Thomas Roemer. -- 2nd ed.

p. ; cm. -- (Pocket guides for gynaecologists)

ISBN 978-3-11-022497-9 (alk. paper)

1. Hysteroscopy--Handbooks, manuals, etc. I. Title. II. Series: Pocket guides for gynaecologists.

[DNLM: 1. Infertility, Female--diagnosis--Handbooks. 2. Hysteroscopy--Handbooks. 3. Menstruation Disturbances--diagnosis--Handbooks. WP 39 R763h 2010a]

RG304.5.H97R6613 2010

618.1'407545--dc22

2010003282

*Bibliographic information published by the Deutsche Nationalbibliothek*

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>.

© 2010 Walter de Gruyter GmbH & Co. KG, Berlin/New York. The publisher, together with the authors and editors, has taken great pains to ensure that all information presented in this work (programs, applications, amounts, dosages, etc.) reflects the standard of knowledge at the time of publication. Despite careful manuscript preparation and proof correction, errors can nevertheless occur. Authors, editors and publisher disclaim all responsibility and for any errors or omissions or liability for the results obtained from use of the information, or parts thereof, contained in this work.

The citation of registered names, trade names, trade marks, etc. in this work does not imply, even in the absence of a specific statement, that such names are exempt from laws and regulations protecting trade marks etc. and therefore free for general use. Printed in Germany.

Typesetting, printing and binding: Druckhaus "Thomas Müntzer", Bad Langensalza.

## **Preface to the 2<sup>nd</sup> edition**

The hysteroscopic diagnostics and therapy have become a main focus in the clinical and research activities at the Department of Obstetrics and Gynaecology at the University of Greifswald at the beginning of the 1990s, and hundreds of gynaecologists have been trained in hysteroscopy during the traditional Days of Hysteroscopy in Greifswald. As a consequence we decided to pass on this extensive experience and published a Hysteroscopic Guide for Gynaecologists together with Professor Straube in 1996. With this book the idea of Gynaecological Pocket Guides, which shall represent in a short, concise and pictorial way the main areas of our speciality, was born.

After more than ten years hysteroscopy has further developed, which led to this 2<sup>nd</sup> edition containing the latest aspects of diagnostic hysteroscopy and its practical applications.

The 2<sup>nd</sup> edition shall contribute to the further enhancement of diagnostic hysteroscopy in the practices and in hospitals.

I would like to thank everyone who supported me in completing the book. I thank Ms. Timm for typing the manuscript, and Ms. Dr. Kowalski and Ms. Dobler from Walter de Gruyter publishing house for their excellent advice and for having responded to all my comments and requests.

Cologne, February 2010

Prof. Dr. med. Thomas Römer



# Contents

1. Introduction .....	1
2. History .....	2
3. Indications for diagnostic hysteroscopy .....	3
4. Instrumentation and distending medium .....	4
5. Examination procedure and techniques .....	22
6. Distinctive features of hysteroscopy in the gynaecologist's practice .....	34
7. Hysteroscopy in the diagnostics of sterility and infertility	36
8. Hysteroscopy with bleeding disorders .....	66
9. Hysteroscopy with sonographically suspect endometrial findings .....	118
10. Hysteroscopy and lost IUD/IUS .....	133
11. Special cases .....	140
12. Complications .....	145
13. Summary .....	149
14. List of abbreviations .....	150



---

## 1. Introduction

In the last two decades hysteroscopy has been established as a method for the diagnostics and therapy of intrauterine diseases. The scope of indications has permanently increased so that today this method belongs to the standard practices in gynaecology. With the development of thin lenses hysteroscopy is not only feasible in hospitals but for many indications also in the gynaecological practice without anaesthesia.

For that reason aspects of the diagnostic hysteroscopy for outpatient treatment are especially considered.

For the diagnostics of sterility and bleeding disorders hysteroscopy constitutes only one form of treatment. Therefore in the case studies of this 2<sup>nd</sup> edition of the Hysteroscopic Guide this method is placed in line with anamnesis, sonography, histology and therapy.

The present guide sets out to offer to the gynaecologist a companion for the practical use of hysteroscopy.

---

## 2. History

The first hysteroscopy was reported by PANTALEONI in the English journal *The Medical Press* in 1869. The Frankfurt physician BOZZINI, who in 1804 developed the so-called light conductor, already then talked of the possibility of hysteroscopy.

In the next century there were many attempts to establish hysteroscopy as a method for gynaecological diagnostics.

Its decisive impetus hysteroscopy owes to LINDEMANN, who succeeded in the 1970s in improving CO<sub>2</sub>-hysteroscopy as a method.

With the possibility of therapeutic hysteroscopies and as a result of numerous technical improvements this method has now found its well-deserved application.

Over the last decades the scope of applications of hysteroscopy, especially for the diagnostics of bleeding disorders, has increased by the use of fluid distending media.

Thin lenses and sophisticated optical systems facilitate a high picture quality. The development of compact systems for the use in the practices (Telepack) is going to further enhance this method.

---

### **3. Indications for diagnostic hysteroscopy**

1. bleeding disorders
2. diagnostics and staging of endometrial cancer
3. diagnostic assessment of sonographically suspect endometrial findings
4. sterility/infertility
5. control after intrauterine operations (intrauterine adhesiolyses, septum dissections, curettages following an abortion, curettages post partum or in childbed)
6. control after medical therapy of endometrial hyperplasias
7. lost IUD/IUS

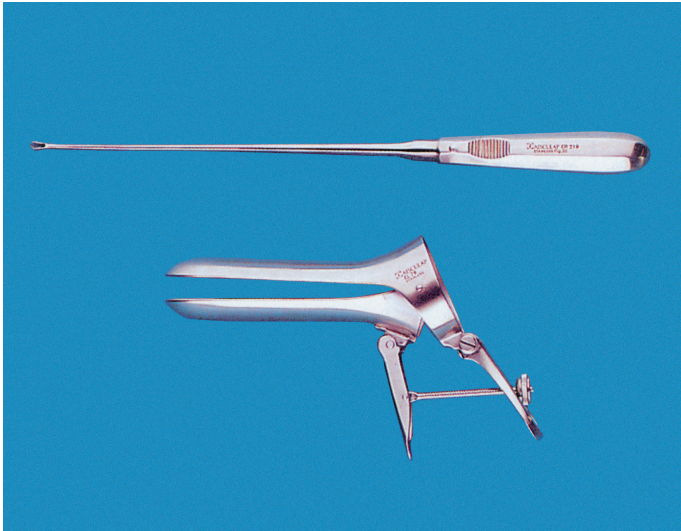


---

## 4. Instrumentation and distending medium

1. Compulsory
  - hysteroscope (30° lenses), when indicated with continuous flow sheath
  - distending medium
  - light source
  - (self-holding) specula
2. Optional
  - video documentation
  - grasping forceps
  - probe/Hegar's dilators
  - small curette for endometrial biopsy

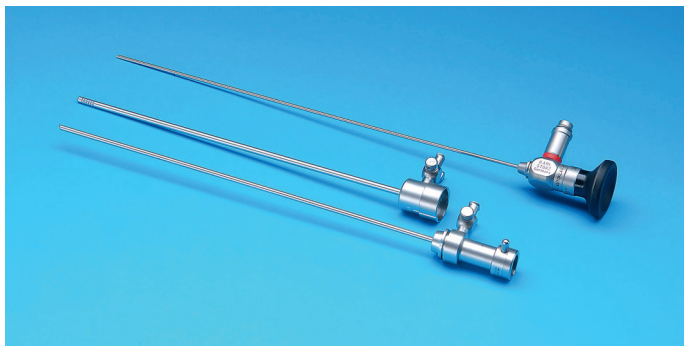
**Attention:** Diagnostic hysteroscopy can be best performed with 30° lenses.



Small curette for target curettage or endometrial biopsy for outpatient diagnostic hysteroscopy. Self-holding specula (available in various sizes).

**Attention:** Extraction of histological material is possible with this curette without further cervix dilatation.

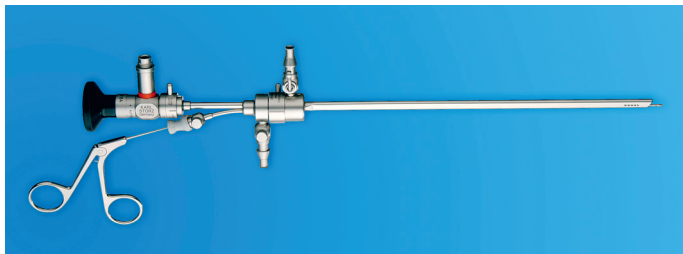
**Attention:** Self-holding specula are especially recommended for outpatient hysteroscopy because a fixation of the cervix with grasping forceps may be dispensed with in most of the cases.



Diagnostic hysteroscope (2 mm-30°-lenses), with a 2.8-mm-diagnostic sheath and a 3.6-mm-flow sheath with the possibility of continuous flow.

**Attention:** The continuous flow sheath is especially suited for fresh bleeding ex utero or coagula in utero for the clearing irrigation of the cavum uteri.

**Attention:** A flushing effect may also be reached when the cervix is dilated further (Hegar 8), so that the outflow may be reached via the dilated cervical canal.



Bettocchi-hysteroscope with working sheath for semi-rigid instruments (biopsy forceps, grasping forceps, microscissors) and continuous flow sheath, lenses 2 mm, outer diameter: 4.2 mm.

**Attention:** The small-size instruments are only suited for the biopsy of focal lesions, cutting off of small polyps, IUD-extraction and cutting of intrauterine adhesions grade 1 and 2.



Semi-rigid instruments for the Bettocchi-hysteroscope

1. biopsy- and grasping forceps
2. biopsy spoon forceps
3. punch
4. blunt scissors
5. sharp scissors
6. myoma-fixation instrument

**Attention:** For the insertion of the working sheath the non-anaesthetized patient may be given a local anaesthetic if necessary.

**Attention:** The tissue gained from biopsy may often be very small, so that a small curette may be used.