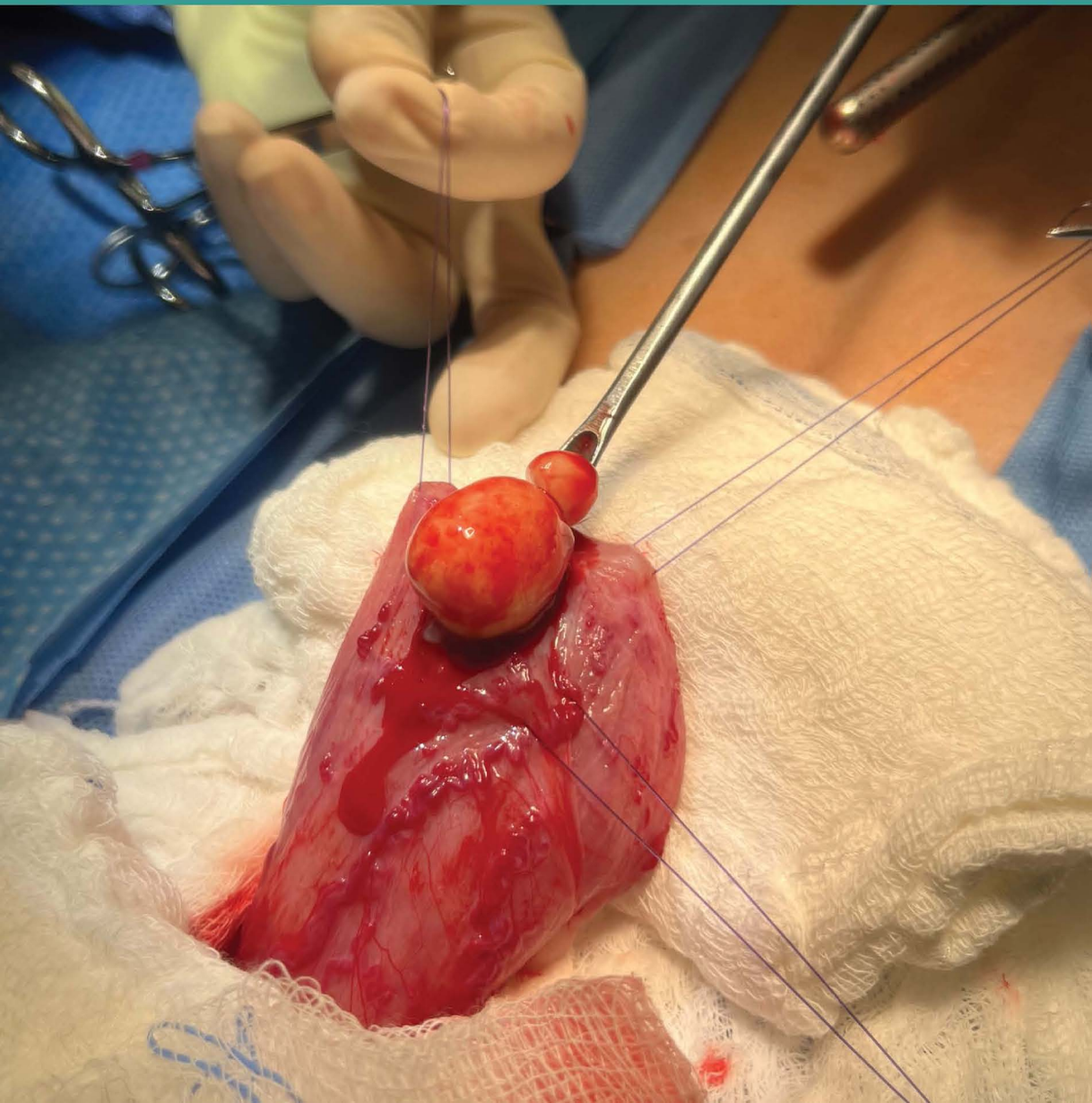




CRC Press
Taylor & Francis Group

Practical Handbook of Small Animal Soft Tissue Surgery

Vanna Dickerson and Kelley Thieman Mankin



Practical Handbook of Small Animal Soft Tissue Surgery

This concise, image-heavy text provides a step-by-step guide to performing common surgical procedures encountered in small animal general practice. A resource for busy practitioners as well as upper-level veterinary students, it offers a “how to” with tips and tricks. Select surgical procedures are broken down into steps, including suggested suture materials and patterns.

The spiral-bound, portable format allows practitioners to reference the book, open, during surgery. The bullet point presentation also enables fast review of “need to know” information prior to entering the operating room. Highlights include:

- *Over 240 high-quality images*
- *Practical stepwise information*
- *Key tips for each procedure*

Busy private practitioners, especially early career, frequently need a quick refresh on the specific procedure they’re about to perform or are performing. This book simply explains the procedure, some common pitfalls, and how to avoid them. An accompanying online video also aids vets and students in visualizing the surgery.



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

Practical Handbook of Small Animal Soft Tissue Surgery

Vanna Dickerson
Kelley Thieman Mankin



CRC Press

Taylor & Francis Group

Boca Raton London New York

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business

First edition published 2025
by CRC Press
2385 NW Executive Center Drive, Suite 320, Boca Raton, FL 33431

and by CRC Press
4 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

CRC Press is an imprint of Taylor & Francis Group, LLC

© 2025 Vanna Dickerson and Kelley Thieman Mankin

Reasonable efforts have been made to publish reliable data and information, but the authors and publisher cannot assume responsibility for the validity of all materials or the consequences of their use. The authors and publishers have attempted to trace the copyright holders of all material reproduced in this publication and apologize to copyright holders if permission to publish in this form has not been obtained. If any copyright material has not been acknowledged please write and let us know so we may rectify in any future reprint.

Except as permitted under U.S. Copyright Law, no part of this book may be reprinted, reproduced, transmitted, or utilized in any form by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying, microfilming, and recording, or in any information storage or retrieval system, without written permission from the publishers.

For permission to photocopy or use material electronically from this work, access www.copyright.com or contact the Copyright Clearance Center, Inc. (CCC), 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400. For works that are not available on CCC please contact mpkbookspermissions@tandf.co.uk

Trademark notice: Product or corporate names may be trademarks or registered trademarks and are used only for identification and explanation without intent to infringe.

ISBN: 978-1-032-48963-6 (hbk)

ISBN: 978-1-032-48962-9 (pbk)

ISBN: 978-1-003-39163-0 (ebk)

DOI: 10.1201/9781003391630

Typeset in Minion Pro
by Apex CoVantage, LLC

Access the Support Materials: <https://routledge.com/9781032489629>

To our veterinary students and residents, past, future, and present.
You are a constant reminder of the power of knowledge and
compassionate care. Keep learning, striving to do your best, and never
forget the profound impact you have on the lives of those you serve.



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

CONTENTS

Authors	xi
---------	----

APPROACHES AND INSTRUMENTATION

1 STANDARD INSTRUMENTATION FOR SOFT TISSUE SURGERY	3
2 EXPLORATORY LAPAROTOMY APPROACHES	9

GASTROINTESTINAL SURGERY

3 GASTROTOMY	19
4 GASTROPEXY	25
5 GASTRIC DILATATION AND VOLVULUS	31
6 ENTEROTOMY	35
7 LINEAR FOREIGN BODY	41
8 INTESTINAL RESECTION AND ANASTOMOSIS (R&A)	45
9 INTUSSUSCEPTION	53
10 RECTAL PROLAPSE	57
11 INTESTINAL BIOPSY	65

OTHER ABDOMINAL PROCEDURES

12 LIVER BIOPSY	73
13 SPLENECTOMY	77

14 CYSTOTOMY	83
15 RETROPULSION OF URETHRAL STONES (UROHYDROPULSION)	91
16 OVARIOHYSTERECTOMY OR OVARIECTOMY	95
17 PYOMETRA	99
18 CESAREAN SECTION	101
19 CANINE NEUTER	107
20 CANINE NEUTER WITH SCROTAL ABLATION	115
21 CRYPTORCHID NEUTER	121
22 FELINE PERINEAL URETHROSTOMY	131
23 CANINE SCROTAL URETHROSTOMY	139
24 NEPHRECTOMY	143

AMPUTATIONS

25 THORACIC LIMB AMPUTATION	149
26 PELVIC LIMB AMPUTATION	155
27 DIGIT AMPUTATION	163
28 TAIL AMPUTATION	169

HERNIAS

29 UMBILICAL HERNIA REPAIR	177
30 DIAPHRAGMATIC HERNIAS	179
31 INGUINAL HERNIA	183

SKIN

32 PRINCIPLES OF SKIN AND SUBCUTANEOUS MASS REMOVAL	193
33 TIE-OVER BANDAGE PLACEMENT	201
REFERENCES	203
INDEX	205



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

AUTHORS



Vanna Dickerson is originally from Georgia, where she began her veterinary career working as an assistant at a local general practice for nearly a decade. After completing her undergraduate studies at the University of North Georgia, she completed her DVM at the University of Georgia College of Veterinary Medicine followed by a small animal rotating internship at Friendship Hospital for Animals in Washington, DC. After her internship she returned to the University of Georgia for a research fellowship and small animal surgical residency, where her passion for all things soft tissue surgery blossomed! She is currently an assistant professor of small animal soft tissue and minimally invasive surgery at Texas A&M University Veterinary Medical Teaching

Hospital, where she has worked since completing residency in 2019. She enjoys spending time with her clowder of cats, her dog, and her daughter.



Kelley Thieman Mankin grew up in Michigan, where she developed a love of animals and a desire to care for them. After completing her undergraduate studies and DVM at the University of Missouri, she completed a small animal rotating internship at the University of Tennessee. After her internship, she completed a combined residency and master's program at the University of Florida. During her residency, she realized her love of soft tissue surgery. She currently works with Dr. Dickerson as an associate professor of small animal soft tissue and minimally invasive surgery at Texas A&M University.



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

APPROACHES AND INSTRUMENTATION



Taylor & Francis

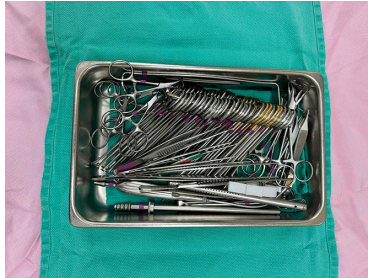
Taylor & Francis Group

<http://taylorandfrancis.com>

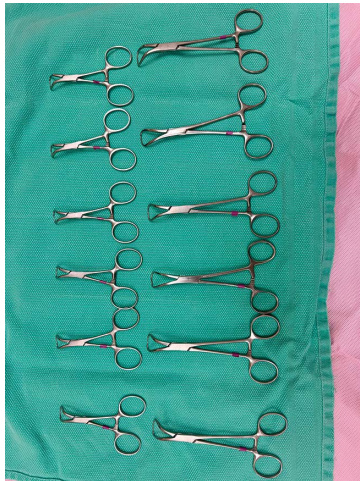
STANDARD INSTRUMENTATION FOR SOFT TISSUE SURGERY

The following items are useful when building a standard surgical pack. A sterile indicator should be included with every pack and assessed prior to use of instruments on a patient.

- Instrument tray sized for all instruments to be included



- Sterile gauze with radiopaque markers, counted
- Sterile laparotomy sponges with radiopaque markers, counted
- Baukhaus towel clamps (12: 6 for underdrape and 6 for overdrape)

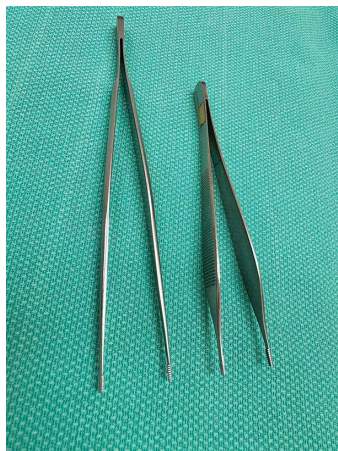


- Thumb forceps:

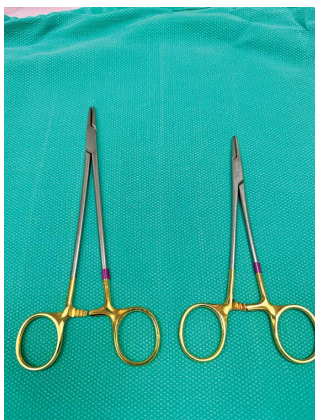
- DeBakey forceps (2, used for delicate tissue handling)



- Brown Adson forceps (2, used for tougher tissues such as the linea or other fascia)



- Needle drivers (1 small and 1 large)

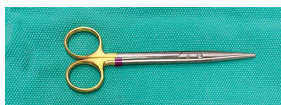


- Blade handles (2: consider 1 #10 blade and 1 #15 blade for larger surgeries)



- Scissors:

- Sharp/blunt scissors (1, for cutting suture)



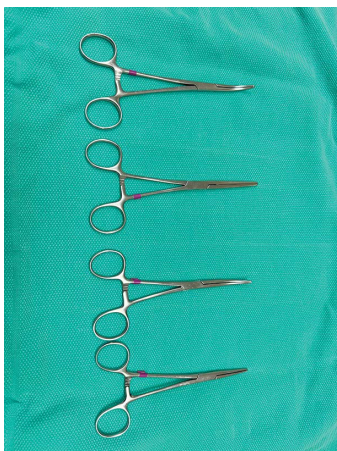
- Metzenbaum scissors (at least 1 pair, consider 1 small and 1 larger pair, for delicate tissues)



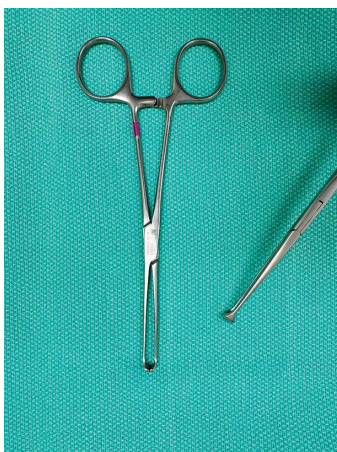
- Mayo scissors (1, for cutting tougher tissues)



- Mosquito hemostats (2 curved, 2 straight)

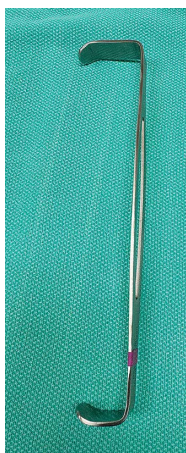


- Larger Kelly or Crile forceps (2 curved, 2 straight)
- Allis tissue forceps (2)



- Retractors:

- Army Navy (1)



- Blunt Senn retractors (1–2)

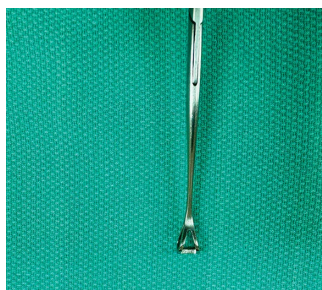
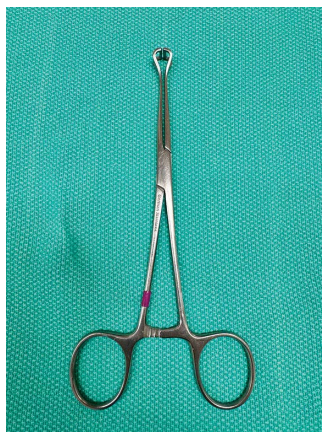


- Optional items that are useful:

- Balfour Retractor
- Suction tubing with a Poole suction tip



- Monopolar electro surgery handpiece
- Babcock forceps (for atraumatically grasping stomach or urinary bladder)



- Doyen forceps for luminal occlusion during gastrointestinal surgery (2)



When performing contaminated surgeries, separate gloves and instruments should be used for incision closure. These can be separated from the primary pack into a sterile towel or wrapped separately and opened when contaminated procedures are completed. Consider including 1 each of the following:

- Sterile gauze (at least 5)
- Needle drivers
- Brown Adson forceps
- Debaquey forceps
- Sharp/blunt scissors

References

Fossum, T. W. (2019). Small animal surgery. 5th ed. Philadelphia, PA, Elsevier, Inc.

Tobias, K. M. (2018). Veterinary surgery: Small animal. S. A. Johnston , Ed., 2nd ed. St. Louis , Elsevier, Inc.