



GYNECOLOGIC SKILLS TRAINER P91

INSTRUCTIONS FOR USE

1021592

GYNECOLOGIC SKILLS TRAINER P91

> CONTENTS

Gynecologic Skills Trainer P91	3
Functions	4
Scope of Delivery	5
Assembling the Gynecologic Skills Trainer P91	6
Disassembly.....	6
Assembly	8
Abdominal Wall	10
Vaginal Unit	10
Pelvic Insert.....	10
Uterus	11
Myomas.....	11
Cervix.....	12
Bladder.....	12
Rectum.....	13
Performing Gynecological Palpations	14
Introduction	14
Preparing for Gynecological Palpations	14
Securing the Trainer	14
Preparing the Modules	14
Training Scenarios	15
Basic Techniques	15
Use of Examination Instruments	15
Uterus with Adnexa Variants.....	15
Cervix Variants.....	16
Cleaning and Care	17
Technical Data	17
Order List	17
Imprint	17

GYNECOLOGIC SKILLS TRAINER P91

You have purchased a Gynecologic Skills Trainer, which can be used to demonstrate and learn how to perform basic gynecological examinations. Gynecological examinations require an exact diagnosis and well-practiced hand movements. The 3B Scientific Gynecologic Skills Trainer P91 allows the most important physiological and pathological scenarios to be presented realistically and cost-effectively.

In addition to the Gynecologic Skills Trainer P91, a version for learning laparoscopic surgical procedures is also available in the form of the Hysteroscopy and Laparoscopy Trainer P92.



Note:

The educational emphasis of the trainer is based on achieving a realistic feel. The structures have been designed to be as life-like as possible. Certain structures may be shown schematically.



GYNECOLOGIC SKILLS TRAINER P91

> FUNCTIONS

The Gynecologic Skills Trainer P91 allows a generalized representation and demonstration of the female pelvic anatomy, as well as all the relevant soft tissue structures. The trainer enables the uterus and the adnexa to be felt and manipulated through the abdominal wall (e.g. manual palpation), and additionally through the vagina (e.g. bimanual palpation).

The modular design allows the use of different uterus and cervix inserts and the representation of typical pathologies (e.g. myomas). Due to the use of high-quality, flexible silicone materials, a realistic, tactile learning experience can be achieved.



Bimanual palpation

GYNECOLOGIC SKILLS TRAINER P91

> DELIVERY CONTENT

1. Base unit
2. Abdominal wall (silicone with foam backing)
3. Vaginal unit (silicone)
4. Normal uterus
5. Enlarged uterus
6. Bicornuate uterus
7. Uterus with myomas (three-part, removable)
8. Ectopic pregnancy
9. Nulliparous cervix
10. Multiparous cervix
11. Cervix with ectropion
12. Cervix with dysplasia
13. Cervix with carcinoma
14. Cervix with barrel-shaped carcinoma
15. Pelvic insert (foam)
16. Urinary bladder (inflatable), with tube and inflation bulb
17. Positioning wedge
18. 2x lubricant (250 ml each, incl. measuring cap)



GYNECOLOGIC SKILLS TRAINER P91

➤ ASSEMBLING THE GYNECOLOGIC SKILLS TRAINER P91



Note:

The Gynecologic Skills Trainer is supplied assembled and ready for use. The modular design of the trainer means that numerous configurations are possible. The following section first describes the process to disassemble the basic state, followed by how to reassemble the trainer. To find out how to use the modular inserts, please follow the individual descriptions for these inserts.

Disassembly



Note:

Unfasten all the connectors by pulling them up with a firm and even force. Always pull near to each connector to ensure that the force acts directly on the connector without the material becoming fatigued or damaged. Avoid jerky movements or tearing.

For a good understanding of the construction and individual structures of the trainer, it is advisable to first disassemble all the individual parts. This will also be necessary later for thorough cleaning and in some instances for the modular configuration of the trainer. The combination of the abdominal wall and vaginal unit is attached to the base unit using 11 phantom fasteners and 2 plug-in connectors. A phantom fastener consists of a closure socket and a closure pin. The material of the closure socket has elastic properties. With the abdominal wall fitted, the connection is invisible (apart from the fasteners on the anterior section of the torso). The plug-in connectors are plastic clips that snap into the base unit. The clip connectors between the abdominal wall and vaginal unit are not normally locked and can be unfastened easily. If you wish to lock or unfasten them, please proceed as described in the section "Clip Connectors."



Fig. 4

1. Unfasten the phantom and plug-in connectors on the abdominal wall and vaginal unit starting from the anterior section of the torso (see Fig. 4; the lowest phantom fastener at the coccyx can remain fastened).



Fig. 6

3. Detach the transparent tubes of the uterus from the threaded bolts in the iliac crest (see Fig. 6).



Fig. 5

2. Detach the abdominal wall from the vaginal unit (also paying attention to the two side flaps over the white plastic clips, see Fig. 5). Put the abdominal skin aside. You now have unrestricted access to the internal organs.



Fig. 7

4. Detach the fallopian tubes (red) from the ovaries. Pull firmly on the fallopian tubes, while holding the ovaries (part of the funnel membrane of the vaginal unit) in place with your other hand (see Fig. 7).

GYNECOLOGIC SKILLS TRAINER P91



5. Pull the uterus out of the funnel membrane of the vaginal unit. If necessary, hold the vaginal unit in place with your other hand (see Fig. 8).



6. Unfasten the vaginal unit from the pelvis all the way around. To do so, pull the flexible silicone material of the funnel membrane over the screw heads and threaded bolts (see Fig. 9).



7. Unfasten the lowest phantom fastener by inserting your hand flat at the coccyx between the base unit and the flexible vaginal unit and lifting the flap with your finger (see Fig. 10).

8. Leave your hand in this position and take hold of the whole vaginal unit.



9. With the other hand flat, exert pressure on the vaginal unit from above through the pelvis and slide (while simultaneously pulling with the other hand) the whole soft tissue insert, together with the bladder unit, downward and out of the bony pelvis (see Fig. 11).



Caution:

Ensure that the bladder has been fully deflated. Let excess air out via the outlet valve (see Fig. 31).

10. Detach the bladder from the tube.

11. Pull the bladder downward and out of the vaginal unit.

12. Pull the tube backward and out of the vaginal unit.



13. Rotate the whole insert so that you are looking at the rectal passage from underneath. Take hold of the visible part of the rectum and pull it out of the pelvic insert (see Fig. 12).



14. All the individual parts can now be cleaned according to the cleaning instructions.

GYNECOLOGIC SKILLS TRAINER P91

Assembly



Note:

Assembly must always be started from the lowest connector (phantom fastener) in the interior of the base unit (coccyx). After installation of the soft tissue insert, this connector pin is difficult to access!

Once it is completely clean and dry, the trainer should be reassembled. Some of the instructions for assembly can also be found in the instructions for the individual modular parts and for the preparation of various scenarios.



Fig. 14

1. Join the pelvic insert and the vaginal unit together. The pelvic insert fits around the vaginal canal. Caution: The flat end of the pelvic insert points toward the vulva, the funnel-shaped end toward the uterus. The gap in the pelvic insert points upward (toward the urethra, see Fig. 14).



Fig. 15

2. Rotate the whole insert so that you are looking at the rectal passage. Take hold of the rectum between two fingers and slide it into the pelvic insert. At the same time, take hold of the end of the rectum with the other hand through the funnel-shaped opening of the pelvic insert and pull it carefully as far as it will go (see Fig. 15).
3. Place the insert with the vulva surface on the floor directly in front of the pelvic opening of the base unit.



Fig. 16

4. Fasten the lowest phantom fastener at the coccyx. Do this by placing the flexible closure socket next to the closure pin and guiding the socket onto the pin using a circular pushing motion (see Fig. 16).
5. Compress the pelvic insert and guide the whole insert into the bony pelvis with a tilting motion. Ensure that the outer skin of the vulva (with the clip connectors) is not pushed inside the pelvis together with the insert.



Fig. 17

6. Position the pelvic insert by moving it back and forth slightly (for correct position, see Fig. 17).



Fig. 18

7. Insert the bladder tube from above through the opening in the top edge of the funnel membrane and connect it to the bladder unit (see Fig. 18).

GYNECOLOGIC SKILLS TRAINER P91



Fig. 19

1. Pull the bladder from below through the large opening in the front edge of the funnel membrane (see Fig. 19).



Fig. 20

2. Place the lower part of the bladder unit in the gap of the pelvic insert directly behind the symphysis (see Fig. 20). Ensure that the length of the tube is sufficient.

3. Attach the edge of the funnel membrane to the screws and threaded bolts all the way around the iliac crest (see Fig. 9).



Caution:

The screws can be loosened slightly if necessary to allow the silicone edge to engage easily and completely.



Fig. 21

4. Insert the desired uterus, together with the cervix attachment, into the opening of the vaginal unit in the appropriate orientation (see Fig. 21).

5. Push the uterus in firmly until you feel or hear it lock into place.

6. Connect the fallopian tubes (red) to the ovaries. Do this by inserting the white plastic ends of the fallopian tubes into the opening in the ovaries (see Fig. 7).

7. Connect the transparent tubes of the uterus to the threaded bolts at the iliac crest (see Fig. 6).

8. Attach the abdominal wall to the vaginal unit by inserting the clip connector pins (also paying attention to the two side flaps over the white plastic clips, see Fig. 5).



Fig. 22

9. Fasten all the phantom and plug-in connectors of the abdominal wall and vaginal unit starting from the posterior section of the torso. Ensure that the upper end of the bladder tube is fed out of the anterior section of the torso through the appropriate opening (see Fig. 22).

GYNECOLOGIC SKILLS TRAINER P91

Abdominal Wall



Note:

When performing manual palpations, the abdominal wall should be fully mounted.

To adjust the different configurations, the abdominal wall must be removed to allow access to the internal reproductive organs. For teaching purposes, it can also be helpful to use the trainer without the abdominal wall if you want to give the trainee an insight into the internal structures. The vaginal unit with the pelvic insert and bladder unit can remain inside the base unit when adjusting the various configurations.

1. Unfasten the phantom and plug-in connectors of the abdominal wall starting from the anterior section of the torso.
2. Detach the abdominal wall from the vaginal unit (also paying attention to the two side flaps over the white plastic clips, see Fig. 5).



Fig. 23

3. Put the abdominal skin aside. You now have unrestricted access to the internal organs (see Fig. 23).
4. For reassembly, proceed in reverse order.

Vaginal Unit

Due to the design, the vaginal unit is composed of the vulva, vagina, rectum with anus, and a funnel membrane with ovaries (see Fig. 24). It is made from silicone material. It is attached to the base unit via phantom connectors and to the abdominal skin via clip connectors.



Fig. 24

For correct use, please observe the relevant instructions in the sections "Disassembly" and "Assembly".

Pelvic Insert



Note:

The pelvic insert is not an accurate representation of the anatomical structures in the pelvis and should be seen as a supporting element.

The pelvic insert (see Fig. 25) supports the vaginal unit and also enables the ischial spine to be felt through the vagina.

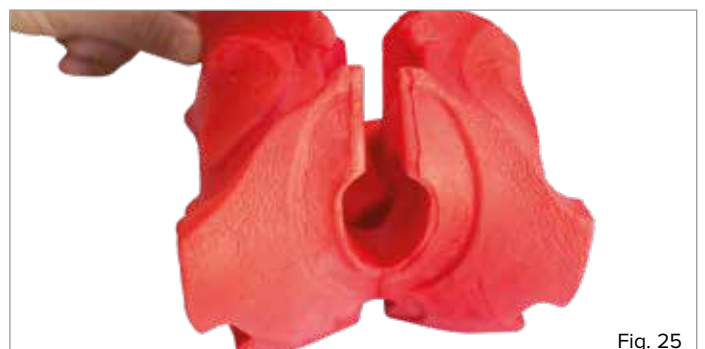


Fig. 25

For correct use, please observe the relevant instructions in the sections "Disassembly" and "Assembly."

GYNECOLOGIC SKILLS TRAINER P91

Uterus



Note:

Four different uterus versions are available. These can be inserted into the vaginal unit from above. Various orientations and configurations can be used to represent the numerous positions of the uterus.

With the abdominal wall open, the uterus can be inserted into the vaginal unit and is secured to the pelvis with straps (transparent silicone tubes). The fallopian tubes (red rubber tubes) are connected to the ovaries (part of the vaginal unit). The uterus inserts have different basic shapes (see Fig. 26).

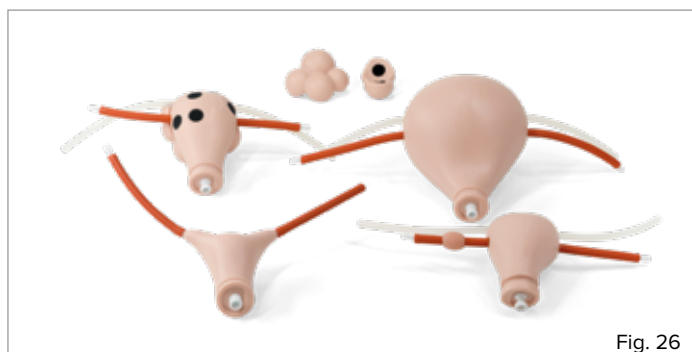


Fig. 26

For correct use, please observe the relevant instructions in the sections "Disassembly" and "Assembly."

1. Remove the abdominal wall according to the instructions in the section "Abdominal Wall."
2. Remove any uterus that may already be installed.
 - Detach the transparent tubes of the uterus from the threaded bolts in the iliac crest (see Fig. 6)
 - Detach the fallopian tubes (red) from the ovaries. Pull firmly on the fallopian tubes, while holding the ovaries (part of the funnel membrane of the vaginal unit) in place with your other hand (see Fig. 7)
 - Pull the uterus out of the funnel membrane of the vaginal unit. If necessary, hold the vaginal unit in place with your other hand (see Fig. 8)
3. Select the desired uterus and ensure that the desired cervix attachment fits correctly (change the attachment according to the instructions in the section "Cervix" if necessary).
4. Select the desired orientation of the uterus and insert the uterus, together with the cervix attachment, into the vaginal unit (see Fig. 21). Push the uterus in firmly until you feel or hear it lock into place.
5. Connect the fallopian tubes (red) to the ovaries. Do this by inserting the white plastic ends of the fallopian tubes into the opening in the ovaries (see Fig. 7).
6. Connect the transparent tubes of the uterus to the threaded bolts in the iliac crest (see Fig. 6).
7. Close the abdominal wall according to the instructions in the section "Abdominal Wall."

Myomas



Note:

The trainer can be used to simulate uterine myomas. To do this, there are three attachments that can be affixed to the outside of the appropriate uterus. The focus of this model is to achieve a realistic feel.

The myoma attachments can be affixed at the dedicated points on the straight uterus using hook-and-loop fasteners. You can either use all three attachments at the same time or each attachment separately.

1. Remove the abdominal wall according to the instructions in the section "Abdominal Wall."
2. Remove any uterus that may already be installed according to the instructions in the section "Uterus."

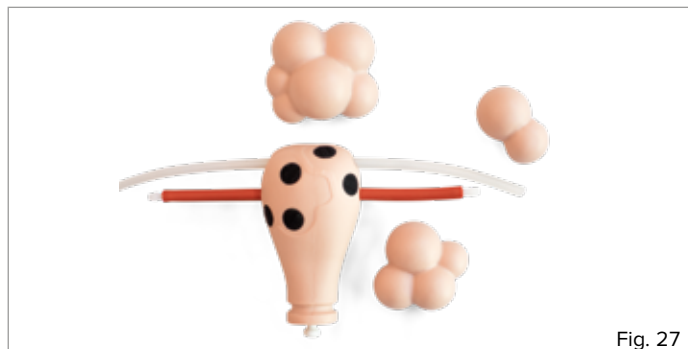


Fig. 27

3. Select the uterus with the dedicated myoma attachment points (hook-and-loop fastener dots, see Fig. 27).
4. Affix the desired myoma attachments by pressing them on. When doing so, make sure that the hook-and-loop fastener dots on the uterus line up correctly with the myoma attachment.
5. For instructions on installing the uterus, see the section "Uterus."
6. Close the abdominal wall according to the instructions in the section "Abdominal Wall."

GYNECOLOGIC SKILLS TRAINER P91

Cervix



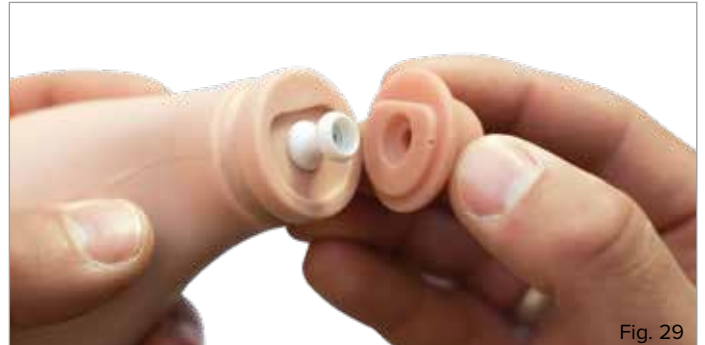
Note:

The trainer comes with six different cervix attachments, which can be freely combined with the uteri. The desired cervix attachment must always be selected before the uterus is installed. It is not possible to change the cervix attachment with the uterus installed.

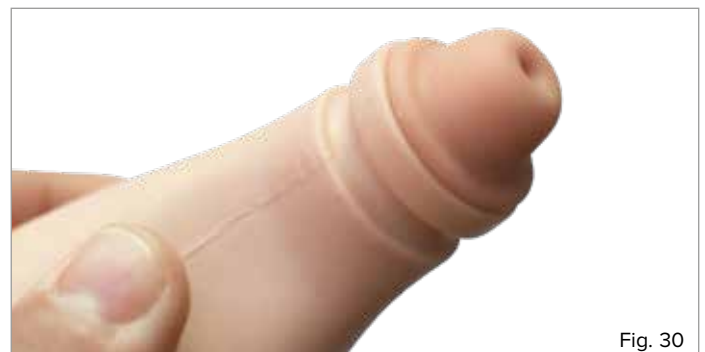


The cervix attachment is attached to the uterus by a phantom fastener. The cervix attachments are made of flexible silicone material and are designed to be life-like (see Fig. 28). This enables realistic training for visual and palpation examinations.

1. Remove the abdominal wall according to the instructions in the section "Abdominal Wall."
2. Remove any uterus that may already be installed. Proceed according to the instructions in the section "Uterus."
3. Select the desired uterus for the training scenario.
4. Select the desired cervix attachment for the training scenario.



5. Position the cervix attachment so that the raised asymmetrical shape on the back of it fits into the corresponding recess on the uterus (around the white plastic pin) (see Fig. 29).



6. Push the cervix attachment onto the white plastic pin on the uterus. Ensure that it has fully engaged without leaving any gaps (see Fig. 30). This can be done by pressing firmly while turning it slightly.
7. For instructions on installing the uterus, see the section "Uterus."
8. Close the abdominal wall according to the instructions in the section "Abdominal Wall."

GYNECOLOGIC SKILLS TRAINER P91

Bladder



Note:

As a possible intervention measure, the insertion of a urinary catheter can be indicated.

The trainer has a schematic version of a urinary bladder. The fill level can be controlled from the outside using an inflation bulb.

1. Remove the abdominal wall according to the instructions in the section "Abdominal Wall."
2. Check that all the plug-in connectors of the bladder unit are fitted correctly.
3. Test the unit for airtightness by pumping up the bladder to the size of an orange using the inflation bulb.
4. Make sure that the bladder retains its size and that no escaping air can be heard.
5. If this is not the case, start again by checking all the plug-in connectors.



6. After checking for airtightness, you can let the air out using the outlet valve on the inflation bulb (see Fig. 31).
7. Fasten the phantom and plug-in connectors of the abdominal wall and vaginal unit starting from the posterior section of the torso. Ensure that the upper end of the tube is fed out of the anterior section of the torso through the appropriate opening (see Fig. 22).
8. Determine the fill level of the bladder using the inflation bulb outside the trainer.

Rectum

The trainer has a flexible, palpable rectum. This enables palpatory examinations of the uterus and the cervix to be carried out rectally.



Note:

The rectum is permanently attached to the vaginal unit. For cleaning purposes, it can be cleaned under running water together with the vaginal unit.

GYNECOLOGIC SKILLS TRAINER P91

> PERFORMING GYNECOLOGICAL PALPATIONS

Introduction

The following pages are primarily aimed at the assistants and training instructors who prepare for the demonstrations and exercises with the Gynecologic Skills Trainer P91, and who assist with them. The possible configurations and the procedure during various training scenarios are described. Due to its modular design, the trainer offers a wide variety of possible training scenarios. The way in which the training scenarios are performed is always based on the individual syllabus of the relevant teaching establishment. These instructions therefore do not provide a comprehensive lesson plan, but should instead be understood as referring to the technical basis for the correct use of the trainer. For a better illustration of the processes inside the trainer, the abdominal wall has been omitted in some of the figures.

Preparing for Gynecological Palpations

Securing the Trainer

The non-slip feet provide an easy way of securing the trainer. A positioning wedge is provided to set up an inclined position.

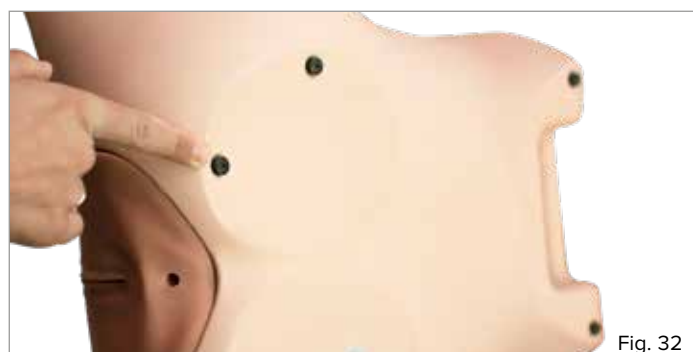


Fig. 32



Fig. 33

Place the base unit with the rubber feet (see Fig. 32) on a non-slip surface, e.g. a table.



Fig. 34

For an inclined position, place the positioning wedge under the base unit (see Fig. 34).

Preparing the Modules

Before each training session, the individual components should be tested for completeness and functionality.

1. Detach all the cervix attachments from the uteri.
2. Remove the ectopic pregnancy attachment from the fallopian tube.
3. Feed the tube of the bladder unit out of the trainer via the anterior section of the torso (see Fig. 22). Test the function of the bladder unit according to the instructions in the section "Bladder."
4. Group the individual parts and position them within reach of the trainer.

GYNECOLOGIC SKILLS TRAINER P91

Trainings Scenarios

Basic Techniques

As basic techniques for a gynecological examination, various palpations can be performed with the trainer. The trainer is suitable for performing both manual and bimanual palpations. The abdominal skin and the vaginal unit are made from flexible, skin-like silicone material. This allows both the soft tissue structures and bony structures to be felt. The vulva and the vagina are also designed to be flexible. The vaginal canal is shown slightly widened to allow better access to the cervix.

The trainer has a urethral opening that can be used to simulate the insertion of a urinary catheter. (Caution: Full catheterization cannot be performed. The emptying of the bladder can be controlled using the inflation bulb; see instructions in the section “Bladder.”) The trainer also has a flexible rectum for extended palpation of the cervix and the posterior wall of the uterus. Thanks to the funnel membrane of the vaginal unit, the uterus insert is positioned so flexibly that the uterus can be lifted. The adnexa (fallopian tubes and ovaries) are represented by soft, flexible structures. Due to the design, the ovaries are located together with the fimbriae of the fallopian tubes as modulated structures in the funnel membrane of the vaginal unit. They can be connected to the fallopian tubes of the respective uterus via plug-in connectors.



Note:

For some palpations, the use of lubricant (included in the delivery) is recommended. This simulates the natural lubrication of the mucous membranes. “When using lubricant, we recommend wearing gloves.”

Use of Examination Instruments

Due to its multiple configuration options, the trainer enables various medical findings to be simulated. The choice of examination instruments and methodological approach is up to the user. Therefore, examination instruments have not been included in the scope of delivery of the trainer. Prior to the training session, please check the available instruments for appropriate size and usability.



Note:

When using examination instruments, please ensure sufficient lubrication if applicable. Use the lubricant supplied, as this can be removed after use without leaving a residue.

Uterus with Adnexa Variants



Note:

The uterus can be rotated to any position within the vaginal unit (rotation along the longitudinal axis). This allows a variety of uterus positions to be demonstrated with each individual uterus.

Palpation initially presents a considerable challenge for the trainee. Being able to feel and assess the internal structures of the female reproductive organs requires intensive training. The uterus is relatively easy to identify due to its size and position. However, the trainee must also be able to recognize abnormalities and pathologies and avoid possible false impressions. There is therefore the possibility to simulate a full bladder, for example. In such cases, the trainee must identify that an incorrect palpation finding could occur and therefore allow emptying of the bladder (by instructing or catheterizing the patient). The adnexa are not normally palpable.

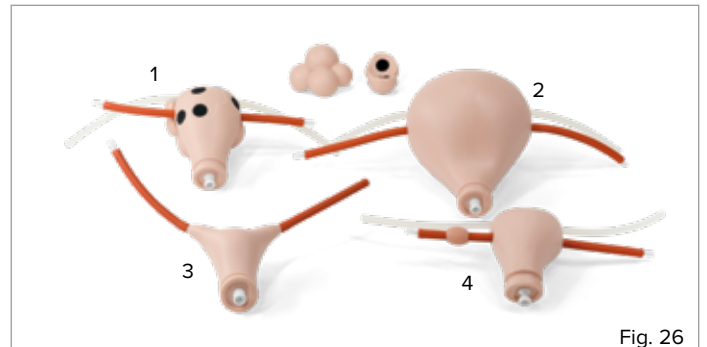


Fig. 26

The following variants are provided for the representation of the uterus (see Fig. 26):

1. Normal size (stretched with myoma attachments)
 - The uterus has three dedicated attachment points for myoma attachments. Depending on the configuration, uterine myomas can be simulated on the posterior and/or anterior of the uterus
2. Enlarged
 - This uterus is approximately twice the size of a fist and has a flexed form.” Depending on the orientation within the vaginal unit (fully rotatable), an ante- or retroflexed position can be simulated
3. Bicornuate
 - This uterus has an underdeveloped, heart-shaped form. Depending on the orientation within the vaginal unit (fully rotatable), an ante- or retroflexed position can be simulated
4. Normal size
 - This uterus has a flexed and laterally positioned form. Depending on the orientation within the vaginal unit (fully rotatable), left and right uterine displacement can be simulated, as well as ante- and retroflexed orientations

GYNECOLOGIC SKILLS TRAINER P91

Cervix Variants

In addition to the uterus, the cervix provides another structure for palpation. However, the cervix can primarily be examined via the vaginal canal. In addition to visual findings, this also enables the minimally invasive use of examination instruments. Cervical smears can be performed.



Fig. 27

The following variants are provided for the representation of the cervix (see Fig. 27):

1. Normal findings
This cervix shows the normal findings in a healthy nulliparous patient.
2. Multiparous
This cervix shows the normal findings in a healthy multiparous patient.
3. Ectropion
This cervix shows the finding of ectropion.
4. Dysplasia
This cervix shows the finding of dysplasia.
5. Carcinoma
This cervix shows the finding of a carcinoma.
6. Barrel-shaped carcinoma
This cervix shows the finding of a barrel-shaped carcinoma.
This finding can only be confirmed by means of a rectal palpation.

GYNECOLOGIC SKILLS TRAINER P91

> CLEANING AND CARE

The surfaces of the trainer, as well as the uterus inserts, can be cleaned with a damp cloth. The vaginal unit and all the cervix inserts can additionally be rinsed under running water. After using lubricant, please rinse thoroughly with clean water until no more residue can be seen. Make sure that the foam backing of the abdominal skin does not come into contact with water. The pelvic insert and the positioning wedge are also foam parts. Please also keep these away from water and moisture. Please ensure that all the parts are completely dry before being put away.



Note:

Please do not use detergents that contain solvents, as these could damage the surface. Avoid labeling and marking the surface, as this can lead to permanent discoloration.

> TECHNICAL DATA

Dimensions: Trainer (HxWxD): 24,2 x 52 x 44 cm (9,5 x 20,4 x 17,3 in)

Weight: 4,3 kg (9,5 lbs)

Operating temperature: 0°C to +30°C (32°F to 86°F)

Storage temperature: -10°C to +40°C (14°F to 104°F)

> ORDER LIST

Item No.	Replacement Parts and Consumables
1021593	Cervix set (6)
1021595	Uterus set (4)
1021596	Replacement abdominal wall for P91
1021600	Replacement vaginal unit for P9
1021603	Positioning wedge
1021656	Ectopic pregnancy set (2)
1021604	Fallopian tube set
1021605	Bladder unit
1021606	Pelvic foam for P91

> IMPRINT



3B Scientific
A worldwide group of companies

UK 3B Scientific Limited

Suite 1, Formal House, Oldmixon Crescent

Weston-super-Mare • BS24 9AY

Phone: 01934 425333 • Fax: 01934 425334

3bscientific.com • uk3bs@3bscientific.com