

TRAINING COURSE IN WOMEN'S HEALTH

Module Three

Gynecological Examinations

International Prototype

Developed by the International Women's Health Coalition and converted to self-instructional format by the Institute for Development Training, this manual, and others in the series, is intended as a prototype only. For effective use in training programs, a country adaptation focused on the needs of a specific type of trainee, followed by pre-testing, is considered essential. For information on sources of funding for adaptation workshops, pre-tests and multiple copies of the adapted manual contact:

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Dear Clinician:

This manual was prepared for your use by a number of able and committed persons, dedicated, as you are, to improving the health care in your country. Every effort has been made to include the most accurate and up-to-date essentials of gynecological health care.

The material was designed and developed by the International Women's Health Coalition, and has been adapted for self-instructional use by the Institute for Development Training.

We do know, however, that as a prototype the material is not suitable for use in all training situations. We hope you will feel free to change anything that is inappropriate.

Your task is a significant and important one. We sincerely hope this manual plays a small part in helping you with your work.

Yours for good health.

Sincerely,

Joan B. Dunlop
President

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Introduction to Module Three

Module Three - "Gynecological Examinations" - is the third of a series of modules which make up the Training Course in Women's Health. Module Three focuses on the procedures for examining the woman's external and internal reproductive organs. These procedures will enable you to differentiate normal from abnormal, detect warning signs of problems, and prepare for treatments that may be necessary.

You should have a thorough understanding of these procedures, including both the purpose and technique, before proceeding to other modules in the series. The information in this Training Course is based on your being able to do the procedures, tests, and evaluations outlined in this module.

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Instructions for the Learner

This module, which is one of a series of modules, is self-instructional. Self-instruction is a method by which you, the learner, learn by yourself from carefully sequenced materials. The module is divided into short sections of information and each of these sections is followed by a series of questions which give you a chance to practice using the information you have learned. Answers to these questions are given so that you can check your understanding of the information.

The self-instructional method allows you to learn at your own speed and enables you to consistently check your progress in learning the information.

Follow the steps below in order to proceed through this self-instructional module in the most effective way:

1. Read the objectives for the module. They will outline for you what you will learn and be able to do after completing the module.
2. Take the Pre-test to get an idea of what you already know and what you need to learn.
3. Read and study the information in Section 1.
4. Answer the practice questions following the section without looking back at the information. Use a separate sheet of paper.
5. Check your answers using the answer sheet on the page following the questions.
6. If any of your answers are incorrect, reread the information in the section and try to answer the questions again.
7. When all your answers are correct, go on to the next section.
8. Proceed through the rest of the sections in the same way: read section; answer questions; check answers; reread section if necessary.
9. Take the Post-test after you have completed the entire module.
10. Check your answers to the Post-test using the answer sheet at the end of the module.

Prerequisites and Objectives

Prerequisites

As a prerequisite for this module, you must have a basic knowledge and understanding of the following terms, concepts, and procedures:

1. Anatomy of female reproductive system (Module One)
2. Anatomy of female urinary system (Module Two)
3. Procedures for preparing slides and cultures
4. Common pathological conditions: polyps, cysts, discharges, lacerations, inflammation, tumors, cystocele, urethrocele, rectocele, erosion.

Main Objective

The learner will be able to explain the purposes and describe the procedures for 3 types of examinations: the pelvic examination, the abdominal examination, and the breast examination, as well as the procedure for taking and evaluating a Pap test.

Sub-objectives

After completing this module, the learner will be able to:

1. name the three parts of the examination
2. state reasons or purposes for giving this examination
3. categorize and list pertinent information to get for the medical history from (a) all patients; (b) new patients; and (c) patients who have just given birth
4. give in his/her own words the 9 general things to say and do with the patient to prepare her for the procedure
5. name the 3 signs or conditions to look for in the external examination of the vulva
6. name the three conditions to look for during the speculum examination
7. describe the abnormalities one might find in the cervix and in the vaginal mucosa

8. describe the preparation that must be done before the speculum examination
9. briefly describe the sequential steps in the procedure from preparation to the withdrawal of the speculum
10. state the 2 reasons for performing the bi-manual examination
11. describe the steps in the procedure for doing the bi-manual examination by sequencing the order of the conditions and organs to check during the examination
12. describe the preparation for the abdominal examination
13. list several conditions to look for during the abdominal examination
14. list 4 disorders of the uterus
15. describe the general causes, symptoms and treatment for each of the 4 disorders
16. identify the parts of the breast on a diagram
17. describe several kinds of conditions to look for during the breast examination
18. list the general steps in the breast examination procedure
19. name the major reason for doing a Pap test
20. name the kind of examination that may be necessary before the Pap test
21. describe the procedure for taking the Pap smear
22. describe the procedure for preparing the smear on a slide
23. describe the proper follow-up treatment for some sample cases, using the given classifications for evaluating the results of the Pap test

Pre-test

To the Learner: Before starting this module, try taking the following test. This test will give you an idea of what you already know and what you will learn in this module. You will take the same test again after you have completed the module. A comparison of your two sets of answers will give you an idea of how much you have learned from this module.

Record your answers on a separate sheet of paper. You will find the correct answers to this Pre-test in the last section of this module.

1. What are the three parts of the pelvic examination?
2. There are 6 reasons for giving the pelvic examination. What are they?
3. During part one of the pelvic examination - inspection of the external genitalia - what are three conditions to look for?
4. During the speculum examination, what two areas should you inspect?
5. What conditions might you find during the speculum examination that would indicate an abnormality or problem?
6. During the bi-manual examination, what information are you trying to find out about (1) the uterus and (2) the ovaries and Fallopian tubes?
7. What is the purpose of the abdominal examination?
8. Following is a list of statements about 5 disorders of the uterus. The statements are definitions, symptoms, causes, or recommended treatments for one of the five disorders. Decide if the statement is about (1) prolapse, (2) retroversion, (3) fibroids, (4) cervical polyps, or (5) endometriosis, and write the name of the disorder beneath each statement.
 - a. The symptoms of this disorder include frequent and difficult urination; vaginal discharge; a feeling that something is coming out of the vagina; and, all the above symptoms immediately disappear when the woman lies down.
 - b. This is a condition where small tumors protrude from the cervix and may cause a discharge and abnormal vaginal bleeding.

- c. This condition is caused by certain cells growing in the wrong place forming cysts in the uterus muscle, or the ovaries, or other parts of the pelvis. When the cysts cover the ovaries or block Fallopian tubes, infertility results.
 - d. This condition is one where the uterus is tilted backwards. It may be troublesome only during pregnancy.
 - e. These lumps of fibrous tissue may cause an irregular enlargement of the uterus. They generally require no treatment when small but surgery may be necessary if these lumps are large.
9. What is the main purpose of the breast examination?
10. Name two signs you might find during the breast examination that would indicate a possible problem.
11. What is the main purpose of the Pap test?
12. During the Pap test, 2 samples are taken. What 2 areas should these cell samples come from?
13. What action should you take on the following results from a Pap test?

Normal/Atypical Benign
Atypical cells present, repeat to rule out
CIN Grades 1, 2, 3
Invasive Carcinoma
Adenocarcinoma

1. Pelvic Examination: Introduction

Purposes of the Examination

The pelvic examination is an important diagnostic procedure. There are three parts to the examination: the external inspection, the speculum exam and the bi-manual exam. Following are 6 reasons to perform this examination:

1. To discover any abnormalities
 - (a) as evidence of certain diseases
 - (b) as complications of contraceptives
 - (c) as contraindications to certain contraceptives
2. To obtain specimens for laboratory study for
 - (a) a Papanicolaou test (Pap test)
 - (b) a culture or slide for gonorrhoea
 - (c) evidence of any other vaginal infections
3. To find out the position of the uterus for IUD insertion
4. To find out the vaginal condition for a diaphragm fitting
5. To prepare for diagnostic curettage
6. To prepare for uterine evacuation

Taking a Medical History

Before performing this examination, you will need to review or obtain the medical history of the patient.

1. For new patients: Find out her medical and surgical history, and complete gynecological and obstetrical history. Give special attention to the following:
 - a. irregular vaginal bleeding
 - b. pelvic infections
 - c. hypertension (high blood pressure)
 - d. personal or family history of diabetes or breast tumors
 - e. vascular problems (blood, circulation problems, heart disease)

2. For patients who have just given birth: Find out about the following:
 - a. lactation
 - b. bleeding
 - c. body functions (any bladder or intestinal problems)
 - d. her baby's health
 - e. plans for future pregnancy or contraception.

3. For all patients: Do the following:
 - a. Review her record.
 - b. Ask about recent events or complications, and any illnesses.
 - c. Watch for any signs of pregnancy.
 - d. Keep good records and record any important new information.

Preparing the Patient

To prepare the patient for the procedure, it is recommended that you go through the following steps in order to make the examination go smoothly for both the patient and you:

1. Tell her of the procedure you will follow, so she will understand a little about why you are doing the examination and what you are looking for.
2. Tell her to empty her bladder.
3. Give her a cloth to cover herself if she wants to, and allow her to undress in private.
4. Collect the necessary instruments for the pelvic exam and the lab tests that you plan to do.
5. Wash your hands before you begin.
6. You may wish to begin with a breast examination (see section on breast exam).
7. Now show your patient how to put her feet into the stirrups or on the table and bring her hips to the edge of the table.
8. Tell her to let her knees separate wide, and to relax her buttocks. You can show her how to relax by breathing slowly and deeply.
9. She will be more comfortable if you assure her that you will be gentle.

Practice Questions

1. What are the three parts of the pelvic examination?
2. One reason for giving a pelvic examination is to discover any abnormalities. Name at least 3 types of abnormalities that can be discovered from the examination.
3. What are 5 additional reasons for performing a pelvic examination?
4. If a patient comes to you who you have never seen before, what information should you get from her before performing a pelvic examination?
5. When taking a medical history, what are four things you should do for all patients?
6. What pertinent information should you get for the medical history from a patient who has just given birth?
7. It is important that the patient is comfortable and relaxed during the procedure. What are several things you can tell her before the procedure in order to help her to be more comfortable and relaxed.

To the Learner: Turn the page to check your answers.

Answers to Practice Questions

1. The three parts of the pelvic examination are: the external inspection, the speculum exam, and the bi-manual exam.
2. During the pelvic examination, abnormalities may be discovered that are:
 - a. evidence of certain diseases
 - b. complications of contraceptives
 - c. contraindications to certain contraceptives
3. Five reasons for performing the pelvic examination in addition to discovering any abnormalities are:
 - (1) to obtain specimens for laboratory study for
 - (a) a Papanicolau test (Pap test)
 - (b) a culture or a slide for gonorrhea
 - (c) evidence of any other vaginal infections
 - (2) to find out the position of the uterus for IUD insertion
 - (3) to find out the vaginal condition for a diaphragm fitting
 - (4) to prepare for diagnostic curettage
 - (5) to prepare for uterine evacuation
4. Find out her medical and surgical history and complete gynecological and obstetrical history. Give special attention to the following:
 - a. irregular vaginal bleeding
 - b. pelvic infections
 - c. hypertension (high blood pressure)
 - d. personal or family history of diabetes or breast tumors
 - e. vascular problems (blood, circulation problems, heart disease)
5. When taking a medical history you should always:
 - a. Review the patient's record.
 - b. Ask about recent events or complications, and any illnesses.
 - c. Watch for any signs of pregnancy.
 - d. Keep good records and record any important new information.

6. For patients who have just given birth, find out about the following:
 - a. lactation
 - b. bleeding
 - c. body functions (any bladder or intestinal problems)
 - d. her baby's health
 - e. plans for future pregnancy or contraception.

7. In order to make the examination go smoothly for the patient:
 - (1) Tell her about the procedure you will follow.
 - (2) Give her a cloth to cover herself and allow her to undress in private.
 - (3) Tell her to let her knees open wide and to relax her buttocks. You can show her how to relax by breathing slowly and deeply.
 - (4) Assure her that you will be gentle.

To the Learner: If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 2 on the next page.

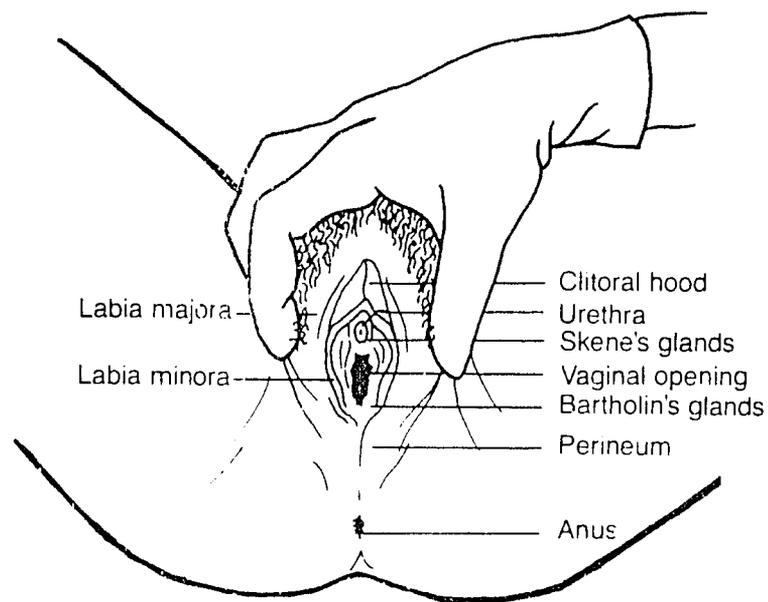
2. Pelvic Examination: External and Speculum Exams

Two parts of this pelvic examination are the external inspection of the vulva and the speculum exam. Following are the 6 steps to follow in order to do these two procedures:

1. Inspect the External Genitalia

Before beginning the internal examinations (speculum and bimanual), inspect the external genitalia, or vulva. During your inspection,

- (a) Notice any signs of bleeding.
- (b) Look for vaginal discharge or secretions.
- (c) Be alert for any signs of venereal disease, discharge from urethra or Skene's (paraurethral) glands, or labial lesions.



2. Prepare for the Speculum Exam

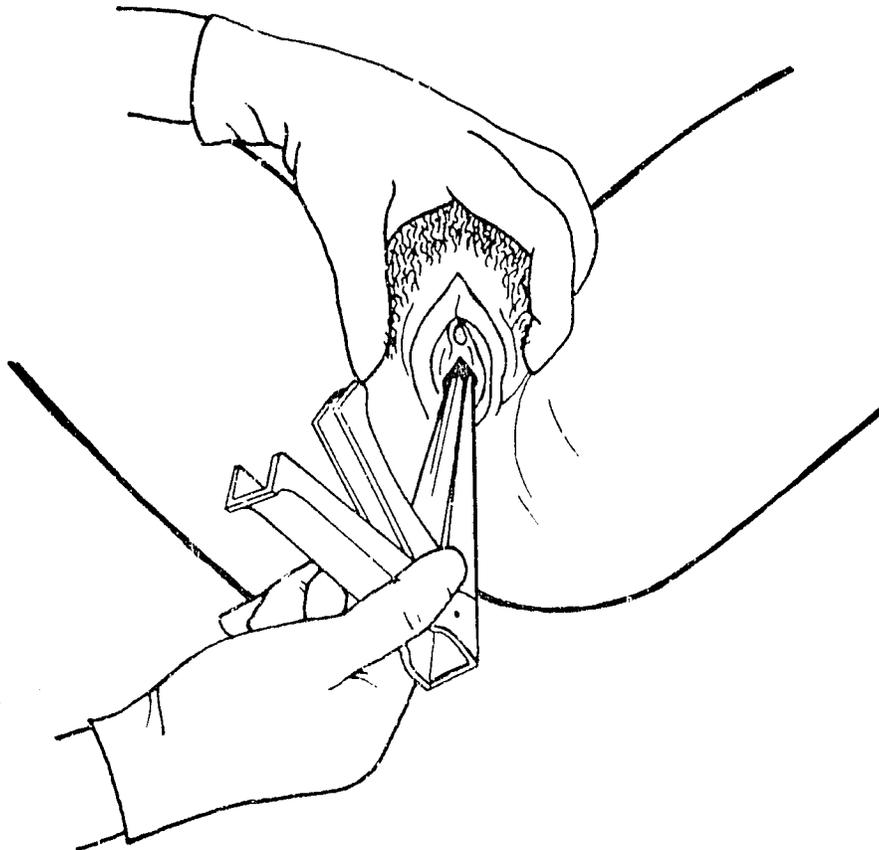
A speculum (a duck-billed instrument designed to separate the walls of the vagina) should be boiled but need not be treated as a sterile instrument. Prepare everything you will need before inserting the speculum (instruments, slides, spatulas, culture media).

Lubricate the speculum before insertion with water or jelly. If you plan to take a smear for a Pap test, use only water.

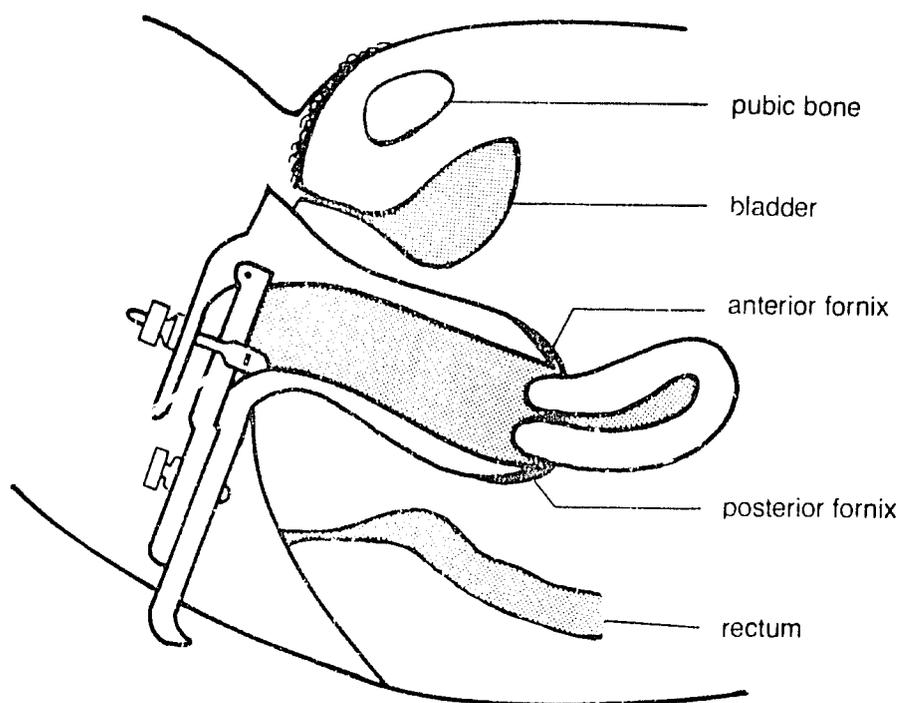
3. Insert the Speculum

Follow these steps in order to insert the speculum into the vaginal canal:

- (1) Hold the speculum with the blades closed, between your first and middle fingers.
- (2) With the other hand, spread the labia and ask your patient to push down, to relax the perineal muscles.
- (3) Insert the speculum so that the blades slip obliquely (slightly sideways) between the labia, into the vaginal canal. Press lightly downward so as not to press on the urethra and clitoris. These areas are very sensitive. Also be very careful not to catch skin and hair between the blades of the speculum.



- (4) When the blades are halfway into the vaginal canal, turn them to the proper horizontal position. Gently open the blades to find the cervix, while using a slight downward pressure. Move the speculum slowly and gently in the direction of the cervix.
- (5) When the blades are placed into the anterior and posterior fornix, and you can see the cervix clearly, tighten the screw so the speculum will stay in position.



4. Inspect the Cervix and Vaginal Mucosa

Once the speculum is in place, inspect the cervix and the vaginal mucosa. Look for the following conditions:

- (a) IUD strings
- (b) Cervix: smoothness, lacerations, polyps, erosion, ectropion, eversion, cysts, color, discharge or bleeding.
- (c) Vaginal mucosa: color, tumors, discharge (odor, color, consistency, presence of bubbles, curd-like quality). The vaginal mucosa will be more completely inspected when you remove the speculum.

5. Take Laboratory Specimens

Laboratory specimens should be taken with the speculum in place before the bi-manual exam changes the secretions.

6. Remove the Speculum

After taking all the specimens that you will need for laboratory study, the speculum may be removed. Draw the speculum slightly downwards and turn the blades obliquely as you remove the speculum from vaginal canal, again with slightly downward pressure.

Practice Questions

1. Name the 3 signs or conditions to look for in the external examination of the vulva.
2. Following are the six steps of the pelvic examination procedure. Show the correct sequence of the steps in the procedure by numbering each step. For example, find the first step of the procedure and place the number "1" in the blank beside it.

- _____ Prepare for the speculum exam.
- _____ Take laboratory tests.
- _____ Inspect the cervix and vaginal mucosa.
- _____ Remove the speculum.
- _____ Inspect the external genitalia.
- _____ Insert the speculum.

3. Name three conditions to look for during the speculum exam.
4. List at least 4 conditions of the cervix that would indicate a problem.
5. List three qualities to notice about the vaginal mucosa.
6. What preparation must be done before the speculum examination?
7. Answer true or false:

Lubricate the speculum with jelly before insertion if you plan to take a smear for a Pap test.

To the Learner: Turn the page to check your answers.

Answers to Practice Questions

1. During your examination of the vulva:
 - a. Notice any signs of bleeding.
 - b. Look for vaginal discharge or secretions.
 - c. Be alert for any signs of venereal disease, discharge from urethra or Skene's (paraurethral) glands, or labial lesions.
2.
 - (1) Inspect the external genitalia.
 - (2) Prepare for the speculum exam.
 - (3) Insert the speculum.
 - (4) Inspect the cervix and vaginal mucosa.
 - (5) Take laboratory specimens.
 - (6) Remove the speculum.
3. Look for the following conditions during the speculum examination:
 - (1) IUD strings
 - (2) condition of the cervix
 - (3) condition of the vaginal mucosa
4. Any of the following conditions would indicate a problem with the cervix:

rough surface	ectropion
lacerations	cysts
polyps	red inflammation
erosion	discharge or bleeding
5. Three qualities to notice about the vaginal mucosa are:
 - (1) color
 - (2) tumors
 - (3) discharge
6. Boil the speculum to sterilize it. Prepare everything you will need before inserting the speculum. Lubricate the speculum before insertion.
7. False. The speculum should be lubricated with water only, if you plan to take a smear for a Pap test.

To the Learner: If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 3 on the next page.

3. Pelvic Examination: Bi-manual Exam

Purpose of the Bi-manual Exam

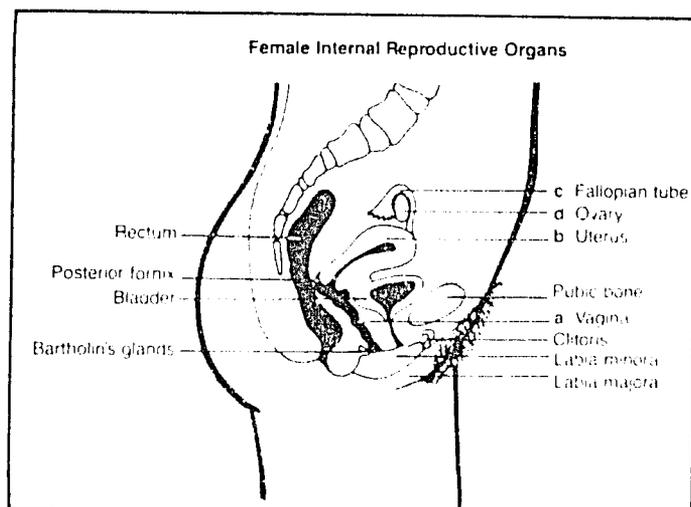
This examination is done in order to find out:

1. the size, shape, consistency and position of the uterus
2. the location of any abnormalities of the ovaries or tubes

Procedure

During this procedure, you check the internal reproductive organs using two fingers. The organs you will check are in the order of their position and are:

1. Bartholin's glands
2. cervix
3. external os
4. uterus
5. Fallopian tubes
6. ovaries

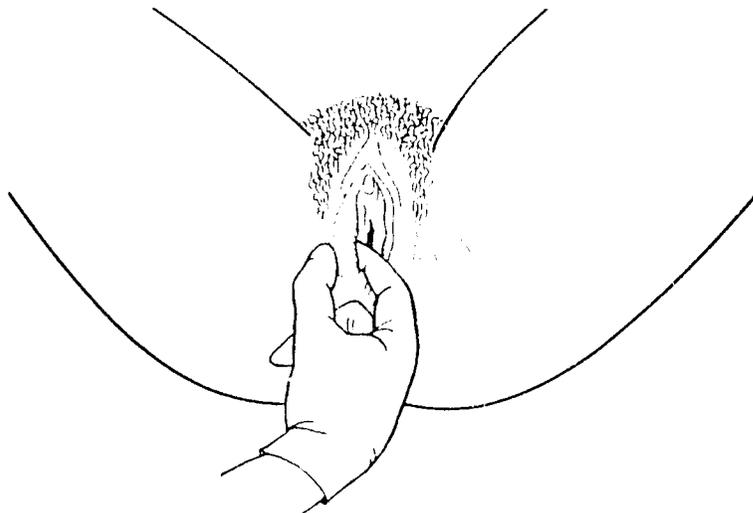


Steps in Bi-manual Exam

1. Prepare for procedure.
 - a. After finishing the speculum examination, separate the labia with 2 fingers of your left hand.
 - b. Wearing surgical glove or a condom, turn your right palm with the thumb upward, and insert the middle and index fingers into the vaginal canal, using a slight downward pressure.

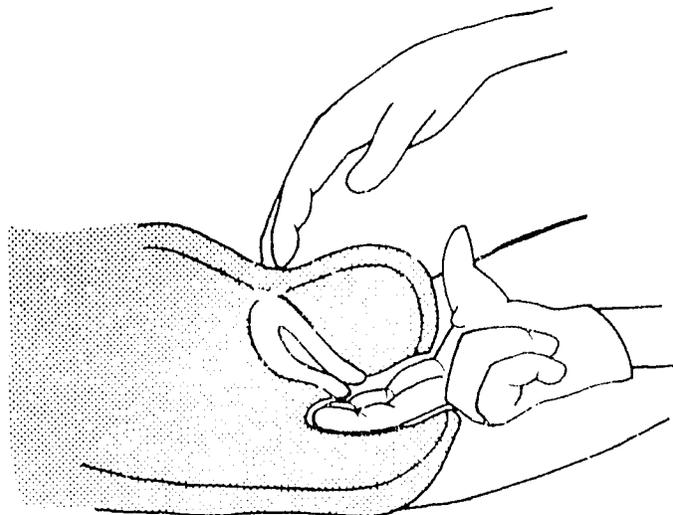
2. Check Bartholin glands for enlargement.

Feel the Bartholin glands between your thumb and 2 fingers by sweeping the fingers along the lower end of each labium majus to see if there is any enlargement.



3. Check the cervix for position, size, consistency, and abnormalities.

- a. Turn your palm up, and with your two fingers in the vagina, follow the anterior vaginal mucosa into the anterior fornix, and find the cervix.
- b. Feel the cervix. Note its position, size, consistency, and whether it is open or closed. Feel the shape of the external os, and recognize any old lacerations. Feel for any cysts or polyps that you saw during the speculum exam.
- c. With your fingers in one lateral fornix, push the cervix to the opposite side. If this is painful to the woman, it means there may be inflammation in the adnexa (the ovaries or tubes). Carefully move the cervix in all directions to find any restrictions or movement.

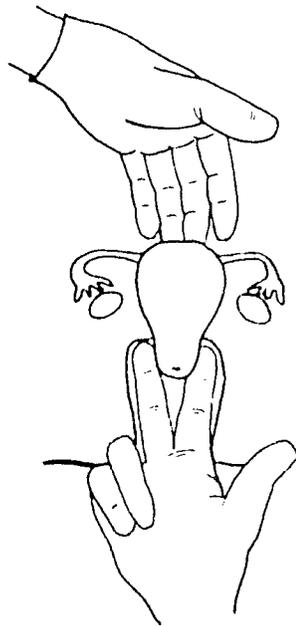


4. Check the position of the uterus.

- a. Place your left hand on the patient's lower abdomen just above the symphysis pubis (the most anterior portion of the pubic bone) and use steady downward pressure. This is to steady the pelvic organs so that you can feel them with your right hand, through the vagina. With your fingers anterior to the cervix, gently lift the vaginal hand to the abdominal cavity and see if the uterus is anterior to the cervix.
- b. If you cannot feel the uterus anteriorly, then place the vaginal fingers posterior to the cervix (and uterus) toward the abdominal hand. This movement may show you that the uterus is in the anterior or mid-position.
- c. If the uterus is not felt between your two hands, it may be in a posterior position, and may be in the cul-de-sac (part of the peritoneal cavity between the rectum and the uterus). In this case you should feel the uterus with your fingers while they are in the posterior fornix. Feel that area thoroughly.

5. Note the size, shape, consistency and mobility of the uterus.

When you have found the position of the uterus, divide your vaginal fingers into a V, with one finger on each side of the cervix. Try to outline the uterus by moving up its sides with your fingers. Note the size, shape, consistency, and mobility of the uterus, and any deviation from right to left.



6. Check for abnormalities of the ovaries, Fallopian tubes, and broad ligaments.

Feel for abnormalities of the adnexa (the ovaries, Fallopian tubes, and broad ligaments). To do this, move your abdominal hand to one side of the uterus. While the abdominal hand presses the adnexa towards the vaginal hand, try to feel the ovaries and tubes on that side of the uterus, as they slip between the examining fingers. Repeat this procedure on both sides. (Note: To find the adnexa, you must press hard with the abdominal hand. The ovaries are very small and it usually takes a great deal of practice to find them.)

7. Check for bulging of the vaginal wall.

Ask the woman to push down. With your eyes at the level of the vagina, look for any bulging of the vaginal wall. This might indicate a cystocele or urethrocele anteriorly, or a rectocele posteriorly. If so, and if she is having symptoms, refer her to a specialist.

Practice Questions

1. The bi-manual exam will indicate the location of any abnormalities of the ovaries or tubes. What is another reason for performing this exam?
2. List the organs you will check in the bi-manual exam in the order of their position, superficial to deep.
3. When you check the Bartholin's glands, what abnormal condition should you look for?
4. What are four qualities of the cervix to notice during the examination?
5. When you check the position of the uterus during the examination, what are three possible positions you may find?
6. What are four qualities of the uterus to notice during the examination?
7. If you should see any bulging of the vaginal wall, what would be your medical recommendation?

To the Learner: Turn the page to check your answers.

Answers to Practice Questions

1. Another reason for giving the bi-manual exam is to find out the size, shape, consistency, and position of the uterus.
2. The organs you will check in the order of their position are:
 - (1) Bartholin's glands
 - (2) cervix
 - (3) external os
 - (4) uterus
 - (5) Fallopian tubes
 - (6) ovaries
3. When you check the Bartholin's glands, look for enlargement and/or tenderness.
4. During the examination of the cervix look for:
 - (1) position
 - (2) size
 - (3) consistency
 - (4) whether the os is opened or closed
5. The uterus may be in posterior, midline, or anterior position to the cervix.
6. During the examination of the uterus, notice the:
 - (1) size
 - (2) shape
 - (3) consistency
 - (4) mobility
7. If you notice bulging in the vaginal wall, and if the patient is having symptoms, she should see a specialist.

To the Learner: If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 4 on the next page.

4. Abdominal Examination

Purpose

The purpose of the abdominal examination is to find any masses or abnormalities in the abdominal region.

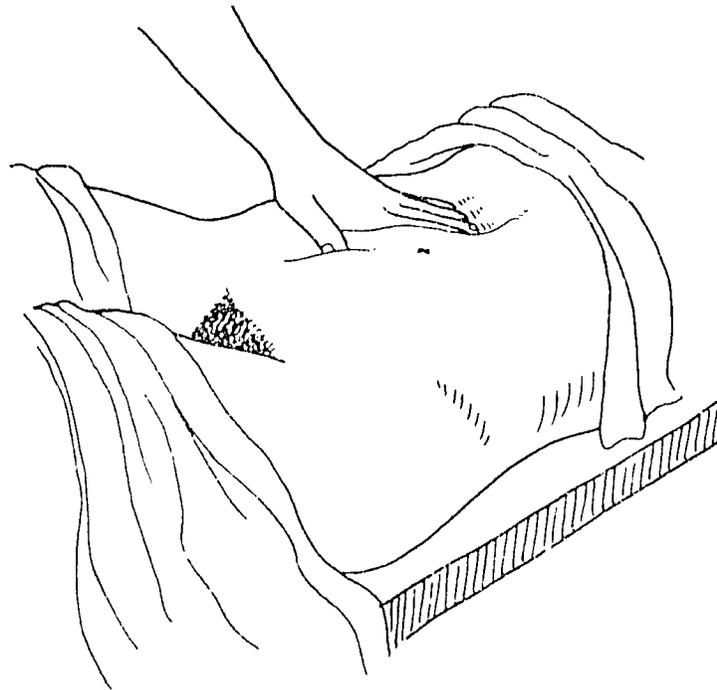
Preparation

Drape the patient in the dorsal recumbent position with her knees slightly flexed to improve abdominal relaxation.

Conditions To Look for

Feel for abnormalities such as undue prominence or asymmetrical contour. Any masses or tenderness should be carefully noted. Particular attention should be directed towards the adnexal regions. Previous surgical scars should be noted.

If any abnormal mass of any kind is felt, the patient should be referred to a specialist.



Practice Questions

1. To prepare for the abdominal examination, the patient should be draped in the _____ position with her knees slightly flexed. Fill in the blanks with the correct words.
2. Why should the knees of the patient be flexed for the abdominal exam?
3. List several conditions to check or look for during the abdominal examination.
4. If you should discover any abnormal mass during the examination, what would be your medical recommendation for the patient?

To the Learner: Turn the page to check your answers.

Answers to Practice Questions

1. Drape the patient in the dorsal recumbent position.
2. The patient's knees should be flexed in order to improve abdominal relaxation.
3. The following are conditions to look for in an abdominal exam:
 - (1) abnormalities such as undue prominence or asymmetrical contour
 - (2) masses or tenderness
 - (3) previous surgical scars
 - (4) Check the adnexal regions.
4. If you should discover any abnormal mass you should refer the patient to a specialist.

To the Learner: If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 5 on the next page.

5. Disorders of the Uterus

This section contains descriptions of 5 kinds of disorders of the uterus: (1) prolapse, (2) retroversion, (3) fibroids, (4) cervical polyps, and (5) endometriosis. The descriptions include causes, symptoms, and possible treatments of the disorders.

1. Prolapse

Prolapse of the womb is an uncommon condition - the uterus sags down into the vagina, and may even protrude out between the legs.

Symptoms:

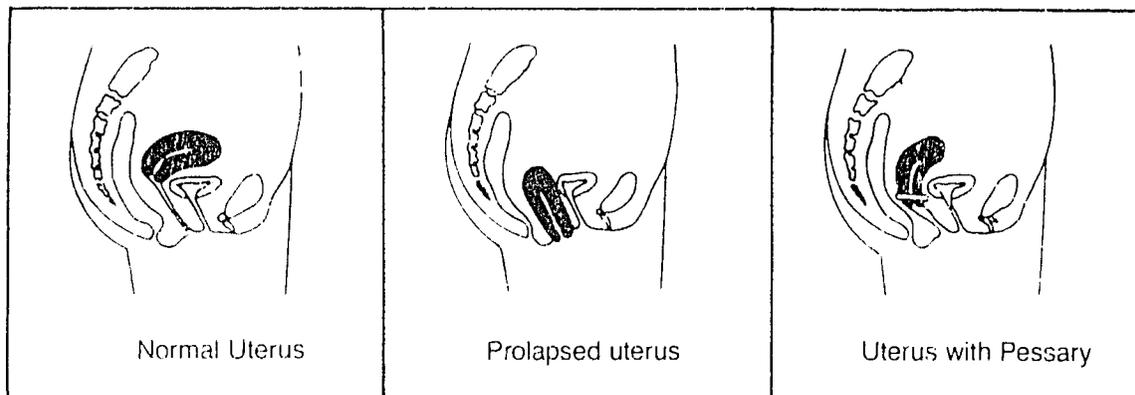
The symptoms include frequent and difficult urination; incontinence; vaginal discharge; low backache; a feeling that something is coming out of the vagina; and, especially, that all the above symptoms immediately disappear on lying down.

Cause:

The condition is produced by weakening of muscles and ligaments that support the uterus. The cause is usually damage done in childbirth. But aging and heavy physical activity also contribute, and the symptoms often appear only after the menopause, when the affected muscles may lose tone and ligaments atrophy.

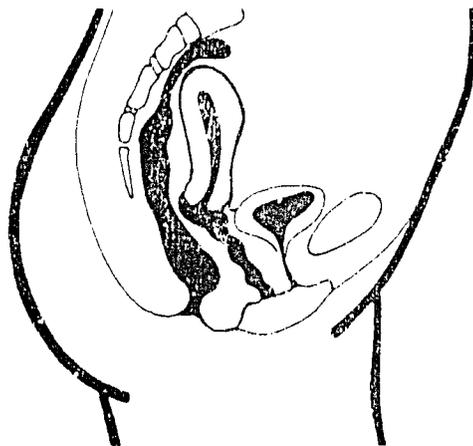
Treatment:

Mild cases require no treatment, but more serious or troublesome ones need a pessary, a vaginal device inserted by a doctor, or sometimes surgery.



2. Retroversion

Retroversion is a condition where the uterus is tilted backward.



Retroversion

Cause:

In most women, from puberty on, the upper end of the uterus is tilted forward in the body, and moves backward only as the bladder fills or when the woman lies on her back. But in about 10% of women the uterus is always retroverted (tilted backward).

Retroversion can also start after childbirth. Other causes of displacement can include: pelvic tumors (such as ovarian cysts); and connective tissue joining to other structures (adhesions).

Symptoms:

Once blamed for many ailments, in fact this may be troublesome only in pregnancy, when the enlarging uterus may fail to rise into the abdomen. Pressure on the bladder may cause urinary retention. Spontaneous abortion might also occur.

Treatment:

A clinician can usually correct retroversion by hand. Unless the retroverted uterus is causing symptoms, no treatment is needed.

3. Fibroids

Fibroids are benign lumps of smooth muscle tissue, growing in the muscle wall of the uterus, just under the surface of the uterus (subseral) or just under the lining of the uterus (submucous). They may occur singly or in groups, and may vary in size from pea-sized to grapefruit-sized or larger. The fibroids may cause an irregular enlargement of the uterus.

Symptoms:

Fibroids may not produce any symptoms at all, or they may give rise to menstrual disorders, essentially increased bleeding and painful periods, and sometimes a vaginal discharge. Rarely, a fibroid may cause severe pelvic pain if it gets twisted.

Cause:

Fibroids occur in about 20% of women over 30, especially the infertile and those who only bear children late in life. Their cause is unknown, but may be hormonal.

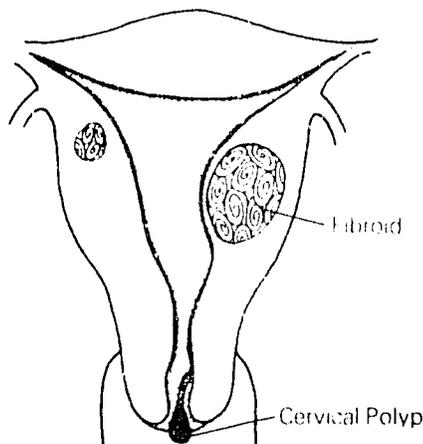
Treatment:

Most fibroids give no trouble and need no treatment. Large ones can cause pain, heavy and irregular menstrual bleeding, uterine enlargement that interferes with urination and bowel action, infertility or spontaneous abortion. They can usually be removed by surgery, but hysterectomy is sometimes necessary.

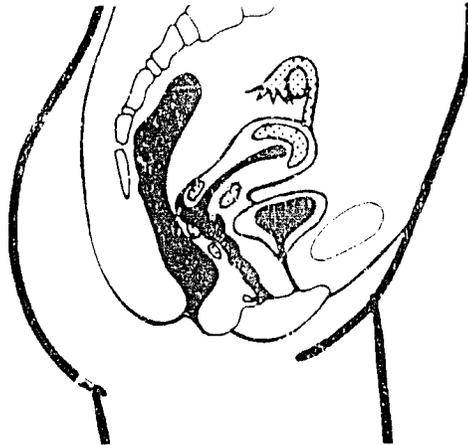
4. Cervical Polyps

Symptoms: Cervical polyps are small tumors which protrude from the cervix. They may be single or multiple. Polyps may cause a discharge and abnormal vaginal bleeding.

Treatment: Polyps should be removed surgically, usually in the outpatient area.



 Typical Endometriosis sites



5. Endometriosis

Endometrial cells (lining of the uterus) can grow in the wrong place, forming cysts in the uterine muscle, the ovaries, or other parts of the pelvis. This is most common in women who postpone childbearing, or infertile women in their thirties.

Symptoms:

On menstruation these cells bleed a little, so the cyst swells, causing pain in the lower abdomen, especially before or at the end of menstruation, and sometimes pain on intercourse. Where ovaries or Fallopian tubes are blocked, infertility results.

Cause:

Endometrial cells form cysts.

Treatment:

Treatment involves:

- (1) Suppression of ovulation so the tissues may atrophy. Oral contraceptives or injectable contraceptives may be used for this purpose. Danazol given for four to six months suppresses all ovarian function and causes regression of the endometrial implants.
- (2) Surgery (e.g., removal of the cyst, or part of an organ).
- (3) In severe cases, hysterectomy.

Practice Questions

1. List 5 possible disorders of the uterus that you might discover during a pelvic examination or from patient symptoms.
2. A woman comes to you with the following symptoms: She has frequent and difficult urination as well as feeling that something is coming out of her vagina. The symptoms disappear when she is lying down. What disorder of the uterus does she probably have and what treatment is recommended if the condition seems serious or troublesome?
3. During a pelvic examination of a woman who is pregnant, you discover that her uterus is retroverted. How would you correct the situation and what might happen if the condition is left untreated?
4. What are fibroids?
5. Most fibroids give no trouble and need no treatment. When should fibroids be treated surgically?
6. What are cervical polyps?
7. If you discover a cervical polyp in a woman, what would be your medical recommendation for treatment?
8. What is the cause of endometriosis?
9. When can endometriosis cause infertility?
10. What are three possible treatments of endometriosis? Which of the three treatments do you recommend only in severe cases?

To the Learner: Turn the page to check your answers.

Answers to Practice Questions

1. Five possible disorders of the uterus are (1) prolapse, (2) retroversion, (3) fibroids, (4) cervical polyps, and (5) endometriosis.
2. The woman probably has prolapse of the uterus. If the condition is serious or troublesome, a pessary may be inserted by a doctor. Sometimes surgery is required.
3. A retroverted uterus of a pregnant woman can usually be corrected by hand. If it is causing symptoms and is left untreated, it could cause cystitis, and even miscarriage.
4. Fibroids are benign lumps of smooth muscle tissue growing in the muscle wall of the uterus.
5. If fibroids are large they may cause such problems as pain, heavy and irregular menstrual bleeding, and uterine enlargement that interferes with urination and bowel action. The fibroids can usually be removed by surgery, but in some cases, hysterectomy is necessary.
6. Cervical polyps are small tumors which protrude from the cervix.
7. Cervical polyps should be removed surgically.
8. Endometriosis is caused by endometrial cells growing in the wrong place, forming cysts in the uterus muscle, on the ovaries, or other parts of the pelvis.
9. Endometriosis can cause infertility when the cysts cover the ovaries or block Fallopian tubes.
10. Three possible treatments of endometriosis are:
 - (1) suppression of ovulation by oral or injectable contraceptives
 - (2) surgical removal of the cyst or part of an organ
 - (3) hysterectomy is the treatment only in severe cases

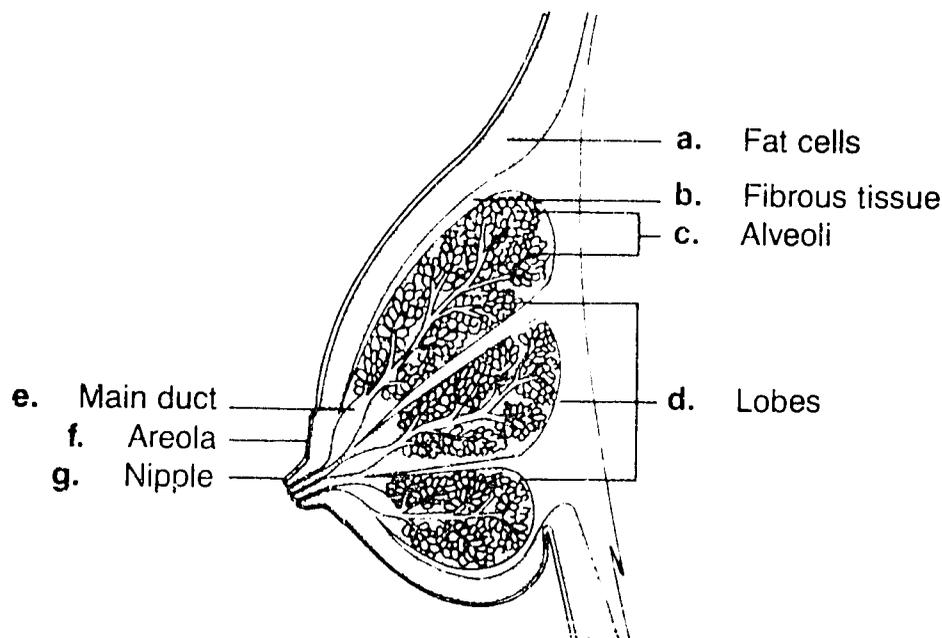
To the Learner: If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go on to section 6 on the next page.

6. Breast Examination

Description of the Breast

The adult female breast, or mammary gland, consists of 15-25 lobes that are separated by fibrous tissue, rather like the segments of an orange. Each lobe resembles a tree and is embedded in fat.

After childbirth, milk produced in the alveoli of each lobe (the "leaves" of each "tree") travels along small ducts into the main "trunk" or milk duct. This duct is enlarged to form a reservoir just below the areola - the dark ring visible around the nipple. A narrow continuation of the duct links this reservoir with the nipple's surface. Each of the breast's 15-25 lobes has its own opening on the nipple.



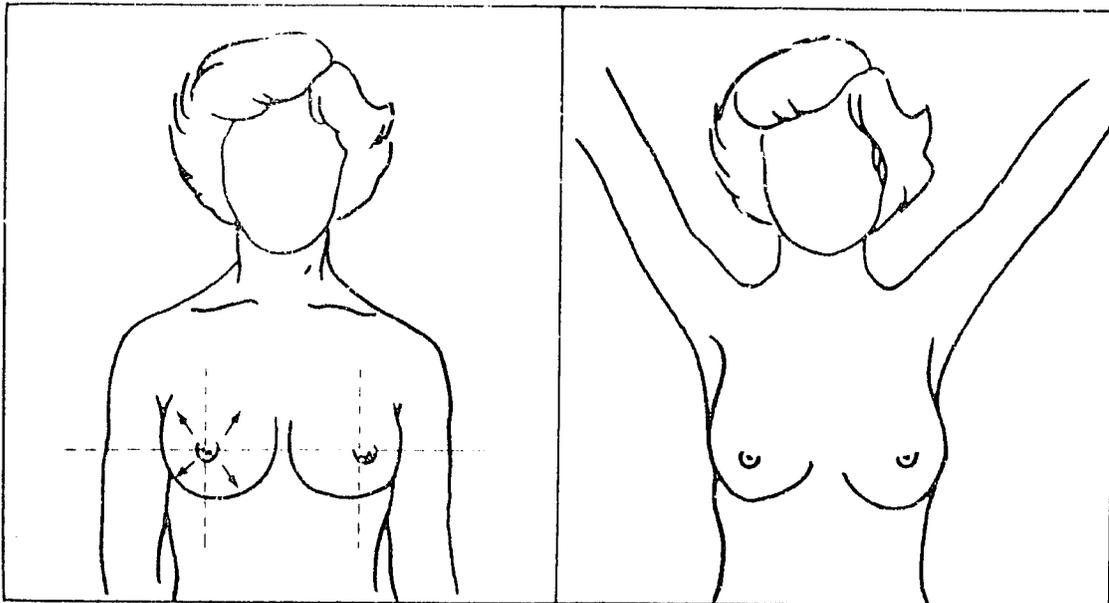
Purpose of the Breast Examination

The examination is done in order to find any abnormal mass or discharge in the breast.

Examine the breasts in good light with the patient relaxed and in a sitting position. Record abnormalities using a sketch or diagram of the breast for clarity.

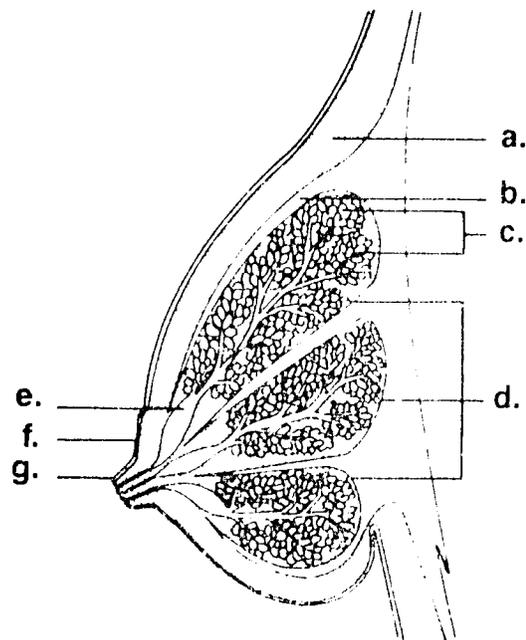
Steps in the Examination

1. Note size, shape, symmetry, and pendulosity of the breasts.
2. Examine for any dimpling of skin, and nipple changes and nipple discharge. If one exists, take a smear of the discharge for cytologic examination.
3. Palpate one quarter of each breast at a time. Hold the fingers flat against the breast and carefully feel with the fingertips using gentle pressure against the firm chest wall. Evaluate the entire breast systematically, from the nipple outwards. Observe breast consistency for thickened or firm zones. Identify the cord-like duct system and any "knobby" or nodular masses, and determine whether masses are fixed to the skin or chest wall. Palpate for axillary and supra- and infra-clavicular lymph nodes.
4. Instruct patient to raise her arm over her head and observe asymmetry or retraction of the nipple or skin.
5. Have the patient bend forward from the erect position to reveal irregularities or dimpling when the breasts fall forward from the chest wall.
6. Continue the appraisal with the patient flat on her back on the examining table. Any abnormal mass or discharge should be referred to a specialist.



Practice Questions

1. Following are a list of the parts of the breast. Match the correct term with the letter on the diagram of the breast.



Parts of the Breast:

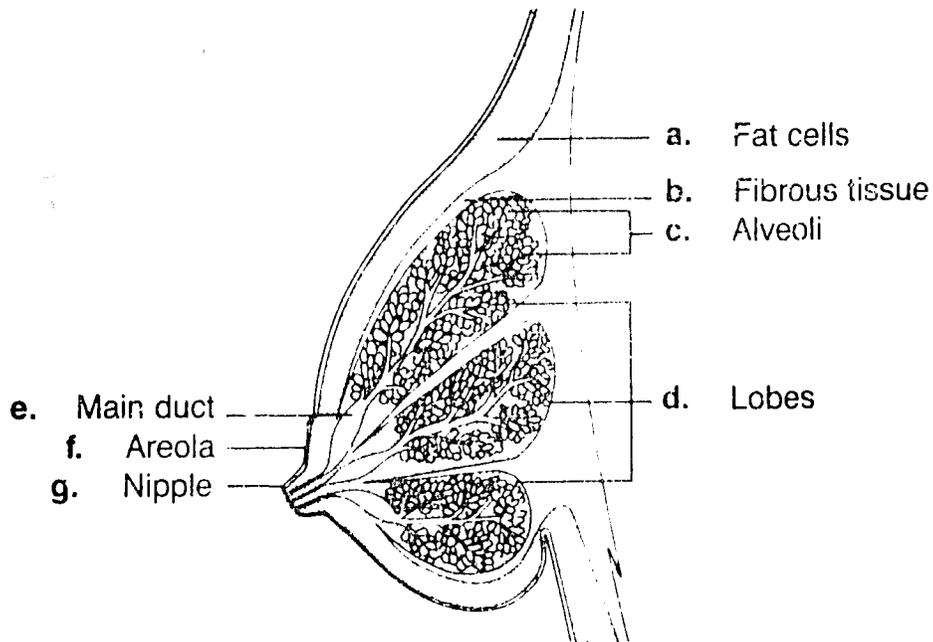
fat cells
lobes
nipple
main duct
fibrous tissue
areola
alveoli

2. What is the purpose of the breast examination?
3. What 4 qualities of the breast should you note during the examination?
4. If a nipple discharge exists, what procedure should you do?
5. During the examination if you find an abnormal mass or discharge, what would your medical recommendation be?
6. In order to check for irregularities or dimpling in the breasts, what position would you ask the patient to take?

To the Learner: Turn the page to check your answers.

Answers to Practice Questions

1. Following is a labeled diagram of the breast.



2. The purpose of the breast examination is to find any abnormal mass or discharge in the breast.
3. The 4 qualities of the breast to note are size, shape, symmetry, and pendulosity.
4. If a discharge exists, take a smear of the discharge for cytologic examination.
5. If any abnormal mass or discharge is found, the patient should be referred to a specialist.
6. To check for irregularities or dimpling, have the patient bend forward from the erect position.

To the Learner: If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 7 on the next page.

7. Pap Test

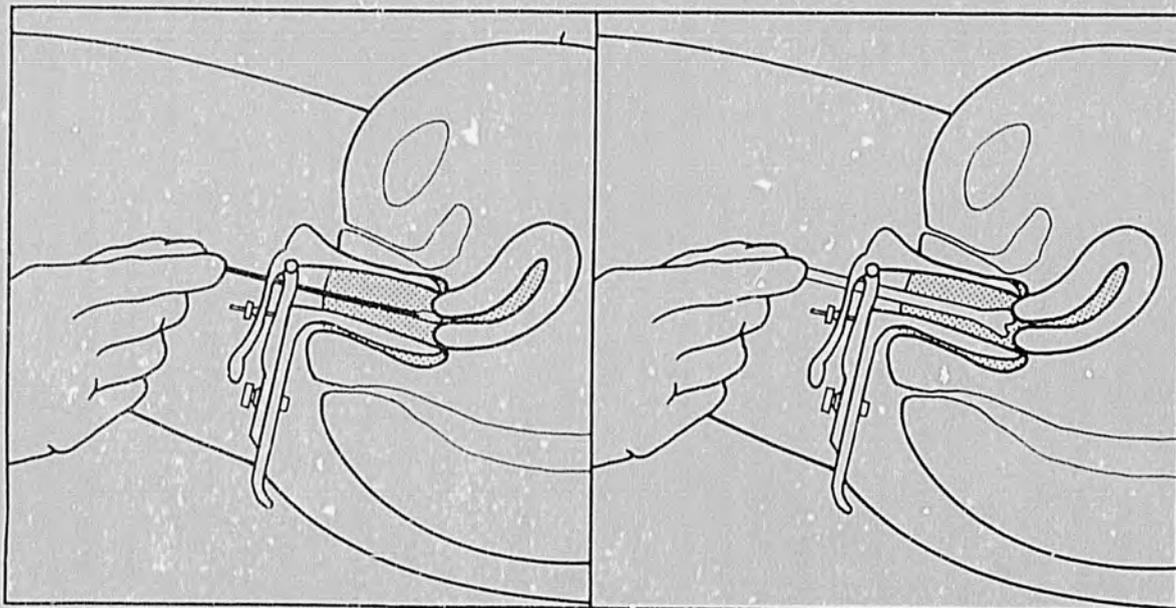
The Pap test is named after its inventor, Dr. George N. Papanicolaou, who discovered that cervical cancer cells can be found before they spread to other female reproductive organs.

The test detects cancer cells of the cervix. It is also useful in detecting other abnormal cells.

Procedure

The Pap test should be offered where there are facilities for Pap smears and, if needed, it should be preceded by a speculum examination, during which the clinician examines the external and internal genitalia for redness, swelling, discharge, or other abnormalities. A bi-manual exam should not be performed before a Pap test.

In this procedure, a speculum is inserted into the vagina so that the cervix can be seen (see section 2 of this module). Cells from the cervix are obtained for two slides by swabbing the endocervix with a sterile cotton swab and by scraping the cervical os with a spatula, or tongue depressor cut to the same shape as the spatula. The cells are smeared on glass slides. The slides are immediately fixed and then examined for the presence of cancer or other abnormal cells.



Swab Method

Spatula Method

Do not take a Pap smear during the heavy portion of a normal menstrual period. If the woman is having irregular bleeding, it is necessary to take a smear.

The best time to have a Pap test done is in the middle of the menstrual cycle as menstrual blood cells, if they are present in the sample on the slide, may make it difficult to see other cells.

Steps in the Procedure

1. Prepare for procedure.

A careful and accurate technique is VERY important. Have slides labeled correctly. Have spatula and fixative ready.

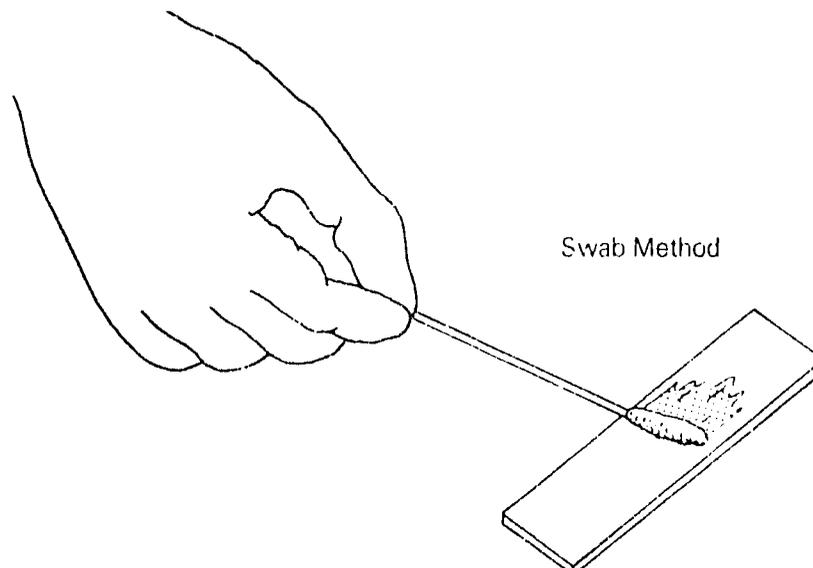
2. Do speculum exam if necessary.

3. Take cell samples.

- a. No lubricant should be used.
- b. Use a sterile cotton swab to take cells from the endocervix.
- c. Use a wooden spatula or plastic (Ayre) spatula and take some cells from the squamo-columnar junction of the cervical os. Use a firm scraping movement and pass the spatula completely around the cervical os (see figure).
- d. For women over 40, cells taken from the posterior fornix may be added to the cervical os scraping.

4. Prepare slides.

Spread the cells on the labeled slides and mix with spatula. It is better to spread it too thin than too thick.



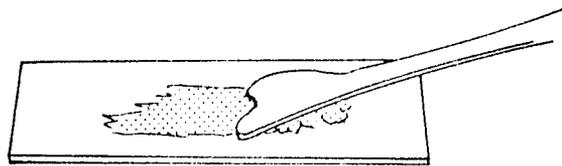
Two separate specimens should be taken and each slide should be clearly labeled to show the site.

- (1) Endocervix
- (2) Region of squamo-columnar junction of the cervical os, may also include posterior fornix of vagina.

The smears should be spread on each slide as described. The slides should immediately be immersed in a solution of ethyl ether and 95% ethyl alcohol (or 95% ethyl alcohol alone) for at least one hour. It is important that the smears should not dry before the slides are fixed by immersing in this solution for at least one hour. If a commercially available spray fixative is available, e.g., Cytospray or Pro-Fixx, the slide can be sprayed with this instead of immersing in alcohol solution.

5. Send slides to laboratory.

The slides should then be sent to a laboratory for staining and interpretation.



Spatula Method

Results of Lab Examination of Slides

The cells are examined at the laboratory and the results of the Pap test are noted. The results are often reported based on the severity of dysplasia present. Dysplasia involves changes in the epithelial cells that are atypical, yet do not resemble cancer. However, these abnormal changes are considered potentially cancerous - it is believed that even in cases of mild to moderate dysplasia, 10% to 15% will progress to invasive cervical cancer if untreated, with even higher percentages for severe dysplasia.

The Pap test results may be reported as follows:

- Normal or atypical benign: normal smear.

- Atypical cells present; repeat to rule out: Some abnormal cells are present, but may be caused by an infection, erosion, or other minor cervical disorder.
- Grade 1 CIN (cervical intraepithelial neoplasia): Mild dysplasia in which abnormal cells are limited to the basal (inner) layers of the squamous epithelium.
- Grade 2 CIN: Moderate dysplasia in which abnormal cells involve more than half the squamous epithelial layers of cells.
- Grade 3 CIN: Severe dysplasia in which all layers of the squamous epithelium are involved. Also included in this category is carcinoma-in-situ. Carcinoma-in-situ means cancer-like cells are noted, but are limited to the epithelium with no evidence of invasion.
- Invasive squamous cell carcinoma: Invasive cervical cancer.
- Adenocarcinoma: Invasive cancer of the glandular columnar cells of the endocervical canal.

The laboratory may also report:

- Specimen insufficient for diagnosis; repeat smear.

Recommendations

- Normal/Atypical benign: no treatment necessary.
- Atypical cells present; repeat to rule out: Examine the patient for vaginal or cervical infection, and, if present, treat with appropriate antibiotics. Repeat Pap smear in three weeks to verify results.
- CIN Grades 1, 2, 3; Invasive Carcinoma, Adenocarcinoma: Treatment cannot be instituted on the basis of an abnormal smear, but must be based on the results of a tissue biopsy. Any results indicating dysplasia or cancer must be referred to a specialist for biopsy, further evaluation, and/or treatment.
- Specimen insufficient for diagnosis: Repeat smear.

Practice Questions

1. What is the major reason for giving the Pap test?
2. Which examination, if needed, should proceed the Pap test in order for the clinician to examine for redness, swelling, discharge or other abnormalities?
3. Which part of the pelvic examination should not be given before a Pap test?
4. During the Pap test, cells are scraped or swabbed from which part of the uterus?
5. When is the best time during a woman's menstrual cycle to take the Pap smear?
6. When the cell samples are taken, should a lubricant be used?
7. Two separate samples should be taken. What 2 areas should these specimens come from?
8. After the smears are spread on the labeled slides, what should you do in order to fix the smears?
9. The results of the Pap smear are classified by the laboratory. A patient receives a "CIN Grade 1 - mild dysplasia" on her test result. What does this mean and what would be your medical recommendation?
10. You send a Pap smear to the laboratory for a patient. The results of the test indicate "Atypical cells present - repeat smear." What treatment and follow-up would you recommend?
11. What referral would you make to any patient with a Pap test result noting evidence of dysplasia or cancer?

To the Learner: Turn the page to check your answers.

Answers to Practice Questions

1. The major reason for giving a Pap test is to detect cancer cells of the cervix and other abnormal cells.
2. A Pap test should be preceded by a speculum examination during which the clinician examines the external and internal genitalia for redness, swelling, discharge, or other abnormalities.
3. A bi-manual examination should not be given before the Pap test.
4. Cells are scraped or swabbed from the cervix.
5. The best time to do a Pap test is in the middle of the woman's menstrual cycle as the menstrual blood cells, if they are present in the sample on the slide, may make it difficult to see other cells.
6. When taking cell samples, no lubricant should be used.
7. The samples should come from 2 areas: (1) the endocervix and (2) region of the squamo-columnar junction at the cervical os.
8. In order to fix the samples, the slides should be immediately immersed in a solution of ethyl ether and 95% ethyl alcohol (or 95% ethyl alcohol alone) for at least one hour. A commercial spray fixative may be used instead of the above process.
9. A CIN Grade 1 - mild dysplasia diagnosis of the Pap test means that abnormal cells are present but there is no evidence of cancer. Further diagnosis is advised and the patient should be referred to a specialist.
10. The recommendation for an "Atypical Cell" test result would be to look for the possibility of cervical erosion, an infection, or some other minor cervical disorder, treat that condition, and then repeat the smear in three weeks.
11. If a patient receives a test result that indicates dysplasia or cancer, that patient should be referred to a specialist for biopsy and further evaluation.

To the Learner: If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go on to the Post-test on the next page.

Post-test

To the Learner: This test will tell you how much you have learned from this self-instructional module. After taking the test, check your answers on the page following the test. Be sure to use a separate sheet of paper for recording your answers.

1. What are the three parts of the pelvic examination?
2. There are 6 reasons for giving the pelvic examination. What are they?
3. During part one of the pelvic examination - inspection of the external genitalia - what are three conditions to look for?
4. During the speculum examination, what two areas should you inspect?
5. What conditions might you find during the speculum examination that would indicate an abnormality or problem?
6. During the bi-manual examination, what information are you trying to find out about (1) the uterus and (2) the ovaries and Fallopian tubes?
7. What is the purpose of the abdominal examination?
8. Following is a list of statements about 5 disorders of the uterus. The statements are definitions, symptoms, causes, or recommended treatments for one of the five disorders. Decide if the statement is about (1) prolapse, (2) retroversion, (3) fibroids, (4) cervical polyps, or (5) endometriosis, and write the name of the disorder beneath each statement.
 - a. The symptoms of this disorder include frequent and difficult urination; vaginal discharge; a feeling that something is coming out of the vagina; and, all the above symptoms immediately disappear when the woman lies down.
 - b. This is a condition where small tumors protrude from the cervix and may cause a discharge and abnormal vaginal bleeding.
 - c. This condition is caused by certain uterine cells growing in the wrong place forming cysts in the uterus muscle, or the ovaries, or other parts of the pelvis. When the cysts cover the ovaries or block Fallopian tubes, infertility results.
 - d. This condition is one where the uterus is tilted backwards. It may be troublesome only during pregnancy.

- e. These lumps of fibrous tissue may cause an irregular enlargement of the uterus. They generally require no treatment when small but surgery may be necessary if these lumps are large.
9. What is the main purpose of the breast examination?
 10. Name two signs you might find during the breast examination that would indicate a possible problem.
 11. What is the main purpose of the Pap test?
 12. During the Pap test, 2 samples are taken. What 2 areas should these cell samples come from?
 13. What action should you take on the following results from a Pap test?

Normal/Atypical Benign
Atypical cells present, repeat to rule out
CIN Grades 1, 2, 3
Invasive Carcinoma
Adenocarcinoma

To the Learner: Turn the page to check your answers.

Answers to Test

1. The three parts of the pelvic examination are the external inspection exam, the speculum exam and the bi-manual exam.
2. Six reasons to give the pelvic examination are:
 - (1) to discover any abnormalities
 - (2) to obtain specimens for laboratory study
 - (3) to find out the position of the uterus for IUD insertion
 - (4) to find out the vaginal condition for a diaphragm fitting
 - (5) to prepare for diagnostic curettage
 - (6) to prepare for uterine evacuation
3. Three conditions to look for during the inspection of the external genitalia are (1) signs of bleeding, (2) vaginal discharges or secretions, and (3) signs of venereal disease, discharge from the urethra and Skene's (paraurethral) glands, or labial lesions.
4. During the speculum examination, the two areas to inspect are the vaginal mucosa and the cervix.
5. Conditions that a clinician might find during the speculum examination that might indicate an abnormality or problem are
 - (1) absence of IUD strings in an IUD wearer
 - (2) lacerations, polyps, erosion, cysts, ectropion of the cervix
 - (3) tumors, presence of bubbles of curd-like quality of the vaginal secretions
6. During the bi-manual examination, you should find out the size, shape, consistency, and position of the uterus. In the ovaries and tubes, you should find the location of any abnormalities.
7. The purpose of the abdominal examination is to find any masses or abnormalities in the abdominal region.
8. Following is the disorder of the uterus described by each of the 5 statements:
 - a. prolapse
 - b. cervical polyps

- c. endometriosis
 - d. retroversion of the uterus
 - e. fibroids
9. The main purpose of the breast examination is to find any abnormal mass or discharge in the breast.
 10. Any of the following are signs in the breast that would indicate a problem:
 1. lumps or masses
 2. asymmetry
 3. retraction of the nipple
 4. dimpling
 5. nipple discharge
 11. The main purpose of the Pap test is to detect cancer cells of the cervix as well as other abnormal cells.
 12. During the Pap test samples are taken from two areas: (1) the endocervix and (2) the region of the squamo-columnar junction of the cervical os.
 13. Normal/Atypical Benign: Normal. No further action is necessary.
Atypical cells present; repeat: Check and treat for cervicitis or vaginal infection if present. Repeat Pap test in three weeks.
CIN Grades 1, 2, 3:
Invasive carcinoma:
Adenocarcinoma: } Refer to a specialist.