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COMMUNITY HEALTH CELL,
47/1. (First Floor) St. Marks Road,
Bangalore - 560 001.

CHAPTER

18

THE URINARY SYSTEM
AND THE GENITALS

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THE URINARY SYSTEM AND THE GENITALS

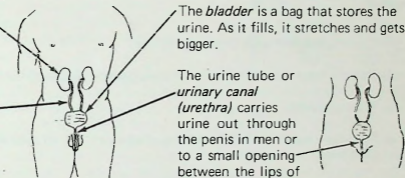
The urinary system or tract serves the body by removing waste material from the blood and getting rid of it in the form of urine:

The *kidneys* filter the blood and form the urine.

The *ureters* are tubes that carry urine to the bladder.

The *bladder* is a bag that stores the urine. As it fills, it stretches and gets bigger.

The urine tube or *urinary canal (urethra)* carries urine out through the penis in men or to a small opening between the lips of the vagina in women.



The genitals are the sex organs.

The man:

bladder

urine canal

penis or male sex organ

scrotum or sac that holds the testicles

sperm tube

The *prostate gland* makes the liquid that carries the sperm.

The *testicles* make the *sperm*, or microscopic cells with tails, that join with the egg of a woman and make her pregnant.



The woman:

outer lip of the vagina

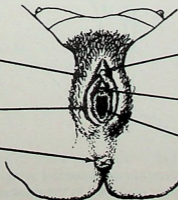
inner lip

anus: end of the intestine

clitoris: a sensitive part somewhat like a small penis

urinary opening: hole where urine comes out

opening to the *vagina* or birth canal



PROBLEMS OF THE URINARY TRACT

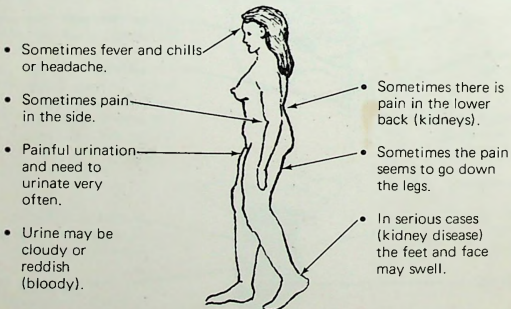
There are many different disorders of the urinary tract. They are not always easy to tell apart. Some are not serious, while others can be very dangerous. A dangerous illness may begin with only mild symptoms. It is often difficult to identify these disorders correctly by simply using a book like this one. Special knowledge and tests may be needed. When possible, seek advice from a health worker.

Common **problems with urinating** include:

1. Urinary tract infections that are not spread by sexual contact.
2. Kidney stones.
3. Prostate trouble (difficulty passing urine caused by an enlarged gland; most common in older men).
4. Gonorrhoea (difficulty or pain in passing urine; an infectious disease, spread by sexual contact).

Urinary Tract Infections that Are Not Spread by Sexual Contact

Signs:



Many women suffer from minor urinary infections. In men they are much less common. Sometimes the only symptoms are **painful urination** and the **need to urinate often**. Other common signs are **blood in the urine** and **pain in the lower**

belly. Pain in the mid or lower back, often spreading around the sides below the ribs, with fever, indicates a more serious problem.

Treatment:

- ♦ **Drink a lot of water.** Many minor urinary infections can be cured by simply drinking a lot of water, without the need for medicine.

(But if the person cannot urinate or has swelling of the hands and face, he should not drink much water.)



- ♦ If the person does not get better by drinking a lot of water, or if he has a fever, he should take pills of a sulfonamide (p. 402), sulfisoxazole with potassium hydroxide (p. 402) or methenamine mandelate (p. 403), or trimethoprim with phenazopyridine hydrochloride (p. 403). If these do not help, have tetracycline. Pay careful attention to dosage and precautions. To completely control the infections, it may be necessary to take the medicines for 10 days or more. It is very important to **continue to drink a lot of water** when taking these medicine, specially with the sulfonamides.
- ♦ If the person does not get better quickly, seek medical help.

Kidney or Bladder Stones:

Signs:

- ♦ The first sign is often sharp or severe pain in the lower back, the side, or the lower belly, or in the base of the penis in men.
- ♦ Sometimes the urinary tube is blocked so the person has difficulty passing urine—or cannot pass any. Or drops of blood may come out when the person begins to urinate.
- ♦ There may be a urinary infection at the same time.

Treatment:

- ♦ The same as for the urinary infections described above.
- ♦ Also give aspirin or another painkiller and an antispasmodic like Baralgan (see p. 416).
- ♦ Try to urinate while lying down. This sometimes allows a stone in the bladder to roll back and free the opening to the urinary tube.
- ♦ In severe cases get medical help. Sometimes surgery is needed.

Enlarged Prostate Gland:

This condition is most common in older men. It is caused by a swelling of the prostate gland, which is between the bladder and the urinary tube (urethra).

- ♦ The person has difficulty in passing urine and sometimes in having a bowel movement. The urine may only dribble or drip or become blocked

completely. Sometimes the man is not able to urinate for days.

- If he has a fever, this is a sign that infection is also present.
- the person passes urine more often, especially at night.
- pain in the lower abdomen.

Treatment for an enlarged prostate:

- If the person cannot urinate, he should try sitting in a tub of hot water, like this: If this does not work, a catheter may be needed (p. 284).
- If he has a fever, use an antibiotic such as ampicillin (p. 399) or tetracycline (p. 400).
- Get medical help. Serious or chronic cases may require surgery.

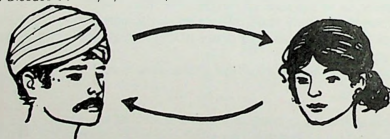


Note: It is important to distinguish between prostate trouble and gonorrhea, which can also make it hard to pass urine. In older men it is more likely to be an enlarged prostate. Also, if a person with gonorrhea strains, he can pass urine. But a person with an enlarged prostate gland cannot pass urine if he strains. However, a younger man—especially one who has had sexual contact with an infected person (within the last few days or weeks)—probably has gonorrhea.

DISEASES SPREAD BY SEXUAL CONTACT (VENEREAL DISEASES)

Gonorrhea (clap, VD, the drip):

This is a disease usually spread by sexual contact (a venereal disease).



Signs:

In the man:

- Pain with urination
- Drops of pus from the penis.
- Difficulty urinating (sometimes he cannot pass any urine at all).
- Fever (sometimes).

After months or years:

- Hard, tender swelling in one knee or other joint, or many other problems.

In the woman:

- **At first, there are often no symptoms** (she may feel a little pain when urinating or have a slight vaginal discharge).
- If a pregnant woman with gonorrhea is not treated before giving birth, the infection may get in the baby's eyes and make him blind (see p. 266).

After months or years:

- Pain in the lower belly (pelvic)

inflammatory disease, p. 287).

- Menstrual problems.
- She may become *sterile*.
- Other problems.

In a man, the first signs of gonorrhoea begin 2 to 5 days (or up to 3 weeks or more) after sexual contact with an infected person. In a woman, years may pass before any signs show up. But even though she does not show any signs, **she can give the disease to someone else**, starting a few days after she becomes infected.

Treatment of gonorrhoea:

- Inject procaine penicillin: Put half the dose in each buttock (see p. 399). It is important to use procaine penicillin and not crystalline penicillin. If you can get probenecid, give 1 gm. half an hour before you inject the penicillin. If you do not have penicillin (or if it does not seem to work), use tetracycline (p. 400).
- If the person cannot urinate, he should try doing so while sitting in a tub of hot water (see p. 280). If he still cannot urinate, the bladder should be drained using a *catbeter* (see p. 284). Get medical help.
- If a man has had sex with his wife after being exposed to gonorrhoea, she should be treated also. Even if the wife shows no signs of the disease, she probably has it. If she is not treated at the same time, she will give the disease right back to her husband again.
- The eyes of all babies should be protected from gonorrhoea and possible blindness by using 1 percent silver nitrate drops at birth (see p. 414).
- Everyone who has had sex with a person known to have gonorrhoea should also be treated, especially wives of men who are infected.

CAUTION: A person with gonorrhoea may also have syphilis, without knowing it. Sometimes it is best to go ahead and give the full treatment for syphilis, because the gonorrhoea treatment may prevent the first syphilis symptoms, **but may not cure the disease.**

For prevention of gonorrhoea and other venereal disease, see p. 283.

Syphilis:

Syphilis is a common and dangerous disease that is spread from person to person through sexual contact.

Signs:

- The first sign is usually a sore, called a *chancre*. It appears 2 to 5 weeks after sexual contact with a person who has syphilis. The chancre may look like a pimple, a blister, or an open sore. It usually appears in the genital area of the man or woman (or less commonly on the lips, fingers, anus, or mouth). This sore is full of germs, which are easily passed on to



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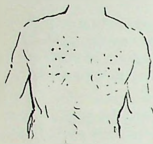
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another person. **The sore is usually painless, and if it is inside the vagina, a woman may not know she has it—but she can easily infect other persons.**

- The sore only lasts a few days and then goes away by itself without treatment. **But the disease continues spreading through the body.**
- Weeks or months later, there may be sore throat, mild fever, mouth sores, or swollen joints. Or any of these signs may appear on the skin:

a painful rash or 'pimples'
all over the body



ring-shaped welts
(like hives)



an itchy rash on the
hands or feet



All of these signs usually go away by themselves, and then the person often thinks he is well—but the disease continues. **Without adequate treatment, syphilis can invade any part of the body, causing heart disease, paralysis, insanity, and many other problems.**

CAUTION: If any strange rash or skin condition shows up days or weeks after a pimple or sore appears on the genitals, it may be syphilis. If unsure, get medical advice.

Treatment for syphilis:

- Inject procaine penicillin (see p. 399). **To cure syphilis completely, it is very important to give the full treatment.** Persons who are allergic to penicillin or who do not get better with it can take tetracycline.
- Injection PAM (see p398) is effective if a person has both syphilis and gonorrhea.
- If there is any chance that someone has syphilis, he should immediately see a health worker. Special blood tests may be needed. If tests cannot be made, the person should be treated for syphilis in any case.
- Everyone who has had sexual contact with a person known to have syphilis should also be treated, especially husbands or wives of those known to be infected.

CAUTION: Do not take home remedies, or medicines from local or untrained healers for syphilis. These medicines do no good. The signs of syphilis often go away on their own. But the germs do not die. Without proper treatment, the disease will come back in a more serious form.

To prevent syphilis, see the next page.

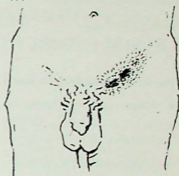
Bubos: Bursting Lymph Nodes in the Groin (Lymphogranuloma Venereum)

Signs:

- **In a man:** Large, dark lumps in the groin that open to drain pus, scar up, and open again.
- **In a woman:** Lymph nodes similar to those in the man. Or painful, oozing sores in the anus.

Treatment:

- See a health worker.
- Give adults tetracycline, (see p. 400)
- Avoid all sexual contact until the sores are completely healed.



How to prevent spreading venereal disease to other people:

1. **Get treatment right away:** It is very important that all persons infected with this kind of illness get treatment at once so that they do not infect other people. Do not have sex with anyone until 3 days after treatment is finished.

Note: In case of syphilis, regular check up by a health worker is necessary for at least two years after all the signs of the disease have gone.

2. **Tell other people if they need treatment:** When a person finds out that he or she has any form of venereal disease (VD), he should tell everyone with whom he has had sex, so that they can get treatment, too. A man is especially obligated to tell women he has slept with, because without knowing that she has it a woman can pass the disease on to other people, her babies may become blind, and in time she may become sterile or very ill herself.

3. A man and his woman should both **take treatment together**. If one of them does not take treatment, he or she can pass the disease back to the other person.

4. **Be careful with whom you have sex:** Someone who has sex with many different persons is more likely to catch these diseases. Brothels or whorehouses are especially dangerous. Do not go to them! Do not be tempted when you go to the cities. Use of condoms helps (but does not always) prevent VD.

5. Always wash genitals after having sex. A man should use condoms during sex. This may help (but does not always) prevent VD.

6. **Help others:** Insist that friends who may have VD get treatment at once, and that they avoid all sexual contact until they are cured.

HOW AND WHEN TO USE A CATHETER

(A RUBBER TUBE TO DRAIN URINE FROM THE BLADDER)

When and when not to use a catheter:

- **Never use a catheter unless it is absolutely necessary** and it is impossible to get medical help in time. Even careful use of a catheter sometimes causes dangerous infection or damages the urinary canal.
- If any urine is coming out at all, do not use the catheter.
- If the person cannot urinate, first have him try to urinate while sitting in a tub of warm water (p. 280). Begin the recommended medicine (for gonorrhoea or prostate trouble) at once.
- If the person has a very full, painful bladder and cannot urinate, or if he begins to show signs of poisoning from urine, then and only then use a catheter.

Signs of urine poisoning (uremia):

- The breath smells like urine.
- The feet and face swell.
- Vomiting, distress, confusion.



Note: People who have suffered from difficulty urinating, enlarged prostate, or kidney stones should buy a catheter and keep it handy in case of emergency.

HOW TO USE A CATHETER

1. Boil the catheter for 15 minutes.



2. Wash the penis and the whole area around it well with soap and warm water.



3. Wash your hands with boiled water and soap.



4. Cover the area around the penis with a very clean cloth, sterilized if possible.



5. Wash your hands with alcohol. (If you have sterile gloves, use them.)



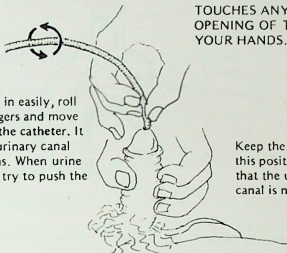
6. Lubricate the catheter with antibiotic ointment or a sterile lubricant.



7. Insert the catheter little by little, very carefully.

BE VERY CAREFUL THAT THE CATHETER NEVER TOUCHES ANYTHING BUT THE OPENING OF THE PENIS AND YOUR HANDS.

If the catheter does not go in easily, roll it gently between your fingers and move the penis, but never force the catheter. It is very easy to injure the urinary canal and cause serious problems. When urine starts to come out, do not try to push the catheter in any more.



Keep the penis in this position so that the urine canal is not bent.

Important:

If the person shows signs of urine poisoning, do not let the urine come out all at once: instead, let it out very slowly, little by little over an hour or 2.

Women sometimes have trouble urinating after giving birth and need a catheter put in. The method is similar, but the woman's urinary tube is much shorter.

PROBLEMS OF WOMEN

Vaginal Discharge

(a mucus or pus-like stuff that comes from the vagina):

All women normally have a small amount of vaginal discharge, which is clear, milky, or slightly yellow. If there is no itching or bad smell, there is probably no problem.

But many women, especially during pregnancy, suffer from a discharge often with itching in the vagina. This discharge may be caused by various infections. Most of them are bothersome, but not dangerous.

1. **A thin and foamy, greenish-yellow or whitish, foul-smelling discharge with itching.** This is probably an infection of **Trichomonas**. It burns to urinate. Sometimes the genitals hurt or are swollen.

Treatment:

- It is very important to keep the genitals clean.

- A vaginal wash, or *douche*, with warm water and distilled vinegar will help.

Use 3 teaspoons of vinegar
in 1 liter of boiled water.



The woman should douche 1 to 3 times a day until she gets better. If there is no vinegar, use lemon juice in water.

- In serious cases use **vaginal inserts** that contain metronidazole or other medication (**SVC Pessaries**) for *Trichomonas* (see p. 409). In very serious cases take metronidazole by mouth. Take 200 mg. 3 times a day for 10 days. For precautions and instructions. (see p.407)

Important:

It is likely that the husband of a woman with *Trichomonas* has the infection too, though he does not feel anything. (Some men with *Trichomonas* have a burning feeling when urinating). If the woman gets a severe infection again after she has been treated, both she and her husband should take the same treatment, starting on the same day. Only take metronidazole by mouth if the infection is very severe. The husband should use condoms during sex.

2. White discharge that looks like cottage cheese or buttermilk, and smells like mold, mildew, or baking bread. This could be a yeast infection (moniliasis, 'thrush'). Itching may be severe. The lips of the vagina often look bright red and hurt. It burns to urinate. Thrush is especially common in pregnant women or in those who are sick, diabetic (p.149) or have been taking antibiotics, or birth control pills.

Treatment:

Get urine checked for diabetes (P.149)

Douche with vinegar-water or dilute gentian violet, 2 parts gentian violet to 100 parts water (2 teaspoons to a half liter). Or use nystatin vaginal tablets or any other vaginal inserts for moniliasis. For dosage and instructions see page 408. Putting yogurt in the vagina is said to be a useful home remedy to help control yeast infections.

WARNING: Never use antibiotics against this kind of infection. Antibiotics make yeast infections worse.

3. **Thick, milky discharge with a rancid smell.** This could be an infection caused by a bacteria called **hemophilus**. Special tests may be needed to tell this from a trichomonas infection. Douche with vinegar-water. Also use a vaginal tablet (insert) of sulfathiazole twice a day for 2 weeks (see p. 408).

4. **Watery, brown, or gray discharge, streaked with blood; bad smell.** These are signs of more serious infections, or possibly cancer (p. 326). If there is fever, use an antibiotic (ampicillin if possible—see p. 399). **Get medical help right away.**

Important: If any discharge lasts a long time, or does not get better with treatment, see a health worker.

How a Woman Can Avoid Many Infections:

1. Keep the genital area clean. When you bathe, wash well with mild soap.
2. Urinate after sexual contact. This helps prevent urinary infections (but will not prevent pregnancy).
3. Be sure to clean yourself carefully after each bowel movement.

Pain or Discomfort

in the Lower Central Part of a Woman's Belly

This can come from many different causes, which are discussed in different parts of this book. The following list, which includes a few key questions, will help you know where to look.

Possible causes of pain in the lower belly are:

1. **Menstrual discomfort** (p. 291). Is it worst shortly before or during the period?
2. **A bladder infection** (p. 279). One of the most common low mid-belly pains. Is urination very frequent or painful?
3. **A yeast infection** (p. 286) or **Trichomonas** (p. 286). These sometimes get into the womb or tubes to the ovaries. Is there a vaginal discharge? What is it like?
4. **Pelvic inflammatory disease**. This is often a late stage of gonorrhoea (p. 280). It may be acute, with symptoms similar to those of peritonitis or



appendicitis (p.108), or chronic, with continual or intermittent pain or discomfort in the lower belly, often with periods of chills and fevers.

5. Problems that are related to a lump or mass in the lower part of the belly. These are discussed briefly on page 326 and include **ovarian cyst**, **ectopic pregnancy** (when the baby begins to develop outside the womb), and **cancer**.

6. An infection or other problem of the gut or rectum (p. 198). Is the pain related to eating or to bowel movements?

Some of the above problems are not serious. Others are dangerous. They are not always easy to tell apart. Special tests or examinations may be needed.

**If you are unsure what is causing the pain,
or if it does not get better soon,
seek medical help.**

MEN AND WOMEN WHO ARE NOT ABLE TO HAVE CHILDREN (INFERTILITY)

Sometimes a man and woman try to have children but the woman does not become pregnant. Either the man or woman may be infertile (unable to bring about pregnancy). Often nothing can be done to make the person fertile, but sometimes something can be done, depending on the cause

COMMON CAUSES OF INFERTILITY:

1. **Sterility.** The person's body is such that he or she can never have children. Some men and women are born sterile.

2. **Weaknesses or a nutritional lack.** In some women severe anemia, poor nutrition, or lack of iodine may lower the chance of becoming pregnant. Or it may cause the unformed baby (embryo) to die, perhaps before the mother even knows she is pregnant (see Miscarriage, p. 327).

A woman who is not able to become pregnant, or has had only miscarriages, should get enough nutritious food, use iodized salt, and if she is severely anemic, **take iron pills** (p. 424). These may increase her chance of becoming pregnant and having a healthy baby.

3. **Chronic infection**, especially pelvic inflammatory disease (see Gonorrhea, p.287) is a common cause of infertility in women. Treatment may help—if the disease has not gone too far. Prevention and early treatment of gonorrhea mean fewer sterile women.

4. **Men** are sometimes unable to make their women pregnant because they have fewer sperms than is normal. It may help for the man to wait, without having sex,

for several days before his woman enters her 'fertile days' each month midway between her last menstrual period and the next (see Rhythm Method and Mucus Method, p. 339 and 340). This way he will give her his full amount of sperm when they have sex together on days when she is able to become pregnant.

Warning: Hormones and other medicines commonly given to men or women who cannot have babies almost never do any good, especially in men. Home remedies and magic cures are not likely to help either. Be careful not to waste your money for things that will not help.

If you are a woman and are not able to have a baby, there are still many possibilities for leading a happy and worthwhile life:



- Perhaps you can arrange to care for or adopt children who are orphans or need a home. Many couples come to love such children just as if they were their own.
- Perhaps you can become a health worker or help your community in other ways. The love you would give to your children, you can give to others, and all will benefit.
- You may live in a village where people look with shame on a woman who cannot have children.

Perhaps you and others can form a group to help those who have special needs and to show that having babies is not the only thing that makes a woman worthwhile

The book *Where There Is No Doctor* is available at Rs 29/- plus postage. Multiple copies of reprints of various chapters are also available.

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