

kin, and so on; and of the autonomic nervous system, which has control over the involuntary activities of the body, such as circulation, respiration, digestion and absorption, and so on.

An intact *central nervous system* is necessary for the adequate performance of the sexual act. Many cases of organic impotence, which comprise less than ten per cent of all cases of impotence, are due to lesions in the brain and spinal cord, much more often in the latter. The brain and spinal cord must be able to send their impulses and to transmit them in order for the erectile tissues to respond normally. This response means filling with blood and becoming tense and firm. If a motor peripheral nerve is cut or severely damaged it cannot transmit impulses from the brain and/or spinal cord to the muscle it normally supplies. The result is paralysis of the muscle. The principle is the same.

It is also necessary for the *peripheral nervous system* to be intact, for what one sees, hears, smells, or feels may determine one's response to erotic stimuli.

The stimuli and impulses that affect the *autonomic nervous system* are of the utmost importance in carrying out the normal act of coitus. For example, in the act of coitus the *sympathetic division* of the autonomic nervous system has an inhibitory effect. If a man is overcome by grief or seized by fear, he cannot attain an erection. As a matter of fact, fear of failure, fear of detection, fear of causing an unwanted pregnancy, or any other kind of fear may prevent a satisfactory erection.

On the other hand it is the *parasympathetic nervous system* that stimulates the erectile tissues and aids in producing erection. It is inhibition of the parasympathetic function resulting from overactivity of the sympathetic that causes most cases of impotence.

Fortunately, we have drugs that quiet or sedate the sympathetic nerves and drugs that stimulate the parasympathetic, to such an extent that the evil influence of the former is overcome and the salutary influence of the latter is enhanced, thus bringing about erection.

It is thus clear that the act of coitus requires a conscious desire, or libido, which acts on the erection center in the spinal cord and stimulates

it to bring about the phenomenon of circulatory distention of the cavernous or erectile tissues of the copulatory organs. When this occurs in partners with normal organs, proper and mutually satisfactory sexual intercourse is possible.

Erection and ejaculation may occur without conscious sex desire, as in the so-called "wet-dream" or nocturnal emission. Even in such cases it cannot be doubted that the influence of the higher centers (in the brain) is effective in bringing about the sequence of events.

In normal and healthy men only powerful emotions of an inhibitory nature can prevent the smooth-running physiology of erection from accomplishing the desired end.

Types of Erection

Cerebral Erection

The normal and usual type of erection occurs spontaneously as a result of sexual excitement. Erotic thoughts can bring it about, but on physical contact it will take place even more quickly. In young men especially it happens and persists for a considerable time during petting or dancing. This is the cerebral type of erection and results largely from impulses passing downward from the higher centers (in the brain, or cerebrum) to the lower centers in the spinal cord and thence over the erection nerves of the parasympathetic nervous system to the erectile tissues. This type of erection may persist into old age, but in middle life or later the speed of the phenomenon is much lessened. In the later decades of life it may become necessary to depend upon the other principal type of erection.

Reflex Erection

This is the tactile or reflex type and requires a varying amount of massage of the penis, preferably by the wife. It may take from two or three to five or ten minutes of slow massage, with the use of a good lubricant. Although the surgical lubricating jellies are very good for this purpose, their composition seems to have recently become somewhat stiffer and hence not so slick. An excellent lubricant for this purpose is Jergens Lotion or Hinds Honey and Almond Cream or any equivalent lotion. If a

condom is used surgical jelly is better and should be applied before it is put on.

Some patients complain that massage of the penis in this manner brings on the orgasm and thus dissipates their desire. This is simply a matter of inadequate technique. The massage *should be slow and backward and forward over the head of the penis. When the sensation grows too acute the husband uses some signal (such as a slight pinch on his wife's thigh), or asks her to stop for a moment. After the sensation becomes less acute, the wife proceeds again with the massage.* Further directions in this regard will be given in the discussion of the medical treatment of psychogenic impotence, although most men will not require any medication in order to achieve a perfectly satisfactory reflex erection. This type of erection is usually much more stable than the very quick cerebral erections of young men, who reach a climax so quickly that the wife is unable to attain orgasm.

The slowness in attaining erection and the need for massage in some older men cannot certainly be explained with our present knowledge of the changes that take place in the blood vessels and tissues of the erectile organs, but it has been surmised that arteriosclerotic changes in the arteries may be at least partly responsible.

Although many men, unaware of the existence of the reflex type of erection, conclude that they are impotent, many others learn in one way or another of the reflex erection and realize that they are not impotent, but merely slow in getting started. They may experiment with themselves by massaging their penes and bring on the erection in this manner while the wife waits. It never seems to occur to them that it is much more satisfactory to have the wife bring it about. Some men learn the technique through conversation with other men.

Possibly old men could attain adequate potency by means of appropriate medication and the technique described above for the reflex erection. Certainly, if a morning erection can occur, the anatomy and physiology of the erectile apparatus are intact and merely require proper treatment, assuming that the male has a good libido. Unfortunate are those cases in which the man has lost all desire, yet has an

ardent wife who craves satisfaction of the spouse's desires in instances will be described in the discussion of the genital phallus.

Types of Impotence and Their Causes

There are three types of impotence, based on the underlying causes: organic, functional, and psychic (psychogenic).

Organic Impotence

Organic impotence is due to some anatomical defect in the reproductive organs, or in the brain or spinal cord. Because of an extreme condition of hypospadias the penis as such may be absent, represented by what resembles a very large clitoris. The external urinary opening (from the bladder) is underneath the base of the phallus and it is necessary for the individual to squat in order to urinate. In cases of hypospadias in which there is a normal sized or even a small penis, a urological surgeon can make an artificial channel to the end of the organ. Thereafter the patient can stand and void and can also ejaculate inside the vagina.

The testicles may have been lost by disease or accident or have become incapacitated following febrile diseases such as mumps. If the loss occurs before the individual has attained maturity and reached full sexual development, impotence is the rule. (Loss of the testicles after adulthood during which a fully developed life has been attained will not cause impotence for many years.)

The urethra may have been so injured that it cannot stretch sufficiently to permit normal erection.

Disease of, or accident to, the brain or spinal cord may so affect centers concerned with perception or erection that impotence results.

It is said that the penis is very rarely too large for entrance into a vagina of average size, although enormous hypertrophy has been known to have prevented intercourse in some instances; also deformities or disease of the penis or surrounding structures (as of the scrotum in hydrocele or in elephantiasis) may render intercourse impossible. Neither of these conditions constitutes impotence in the usual sense.