Male and female sexual organs are different in many ways, but nevertheless they fit perfectly together. Knowledge of anatomy and physiology is important to understand the physical differences between men and women. Knowledge may never replace commitment and love in a marriage relationship, but missing knowledge often creates sexual problems that might easily be avoided. A woman who knows the male sexual anatomy and physiology has a much better starting point for giving her husband the best possible sexual pleasure. In the same way a man who knows his own body has much better premises to satisfy a woman during sexual intercourse.

The male external sexual organs consist of penis and scrotum. The penis contains three spongy bodies that are filled with blood during erection. The two largest bodies are placed on the upper side of the penis and are surrounded by strong connective tissue that makes them rather hard when filled with blood. These two bodies are called cavernous bodies because of their internal structure that resembles many small caverns that may be filled with blood.
Under the penis there is a thinner spongy body that contains the urethra. This body does not get as hard as the cavernous bodies during erection, but even this body grows considerably in size when it is filled with blood. In the most distant part of penis, this spongy body expands to make the head of the penis which is in Latin is called *glans*. The urethra ends in the penile head.

The two cavernous bodies run backwards on each side under the pelvis. Since these are fixed to the bony pelvis, penis may rise and point upwards during erection. The spongy body containing the urethra runs backwards in the midline and forms the root of the penis in front of the anal opening.

The head of penis contains a huge amount of nerve endings and sensory bodies making it very touch sensitive. In Europe most men are uncircumcised, which means that the foreskin covering the head is intact. The foreskin protects the sensitive skin on the penile head. In the USA a much higher percentage of the men are circumcised which implies that the foreskin is surgically removed. This decreases the sensitivity to some degree, but this is of no considerable importance to the enjoyment of sexual stimulation. The foreskin may be drawn back and the penile head is usually being uncovered during erection, and the highly mobile skin on the penile shaft may slide back and forth during intercourse. Since this skin is fastened to the most sensitive spot under the penile head via the skin chord called *frenulum*, the nerves in this area will be stimulated as well when the skin of the shaft is being moved. The edge around the penile head is called *corona* which is Latin for crown. There is a high concentration of nerve endings and sensory bodies all around the corona that are being stimulated by the movement of penis inside the vagina.

The area between scrotum and the anal opening is called *perineum*. The penile root lies deep to the skin in front of the anal opening. On each side the cavernous bodies are fixed to the bony pelvis. The actual size of the complete penis is almost twice as large as the external visual part.

The scrotum contains the testicles that produce sperm and the male sexual hormone testosterone. One seminal duct runs from each testicle towards the prostate gland and the seminal vesicles.
The prostate gland and the seminal vesicles produce the major part of the seminal fluid that is expelled from the penis during ejaculation. This fluid also contains nutrition to the sperm cells making it possible for them to survive several days in the internal sexual organs of the woman.

The so called glands of Cowper are located between the prostate gland and the root of penis. They produce a clear fluid that is excreted to the urethra when the man experiences sexual excitement. This fluid covers the inside of the urethra and prepares for the later expulsion of seminal fluid during ejaculation. Some drops of the clear fluid may even come out via the urethral opening. Even though this fluid is different from the seminal fluid, it may contain sperm cells that can fertilize a woman if the fluid is entering her vagina.

Apart from small muscular fibers in the urethra and blood vessels, the penis itself does not contain any muscles.

However, there are many pelvic muscles that have considerable influence on the penis. The parts of the spongy bodies that are positioned under the pelvis are all covered by small muscles that are named after the bodies they cover. The pelvic floor is supported by a number of muscles that embrace the urethra and the anal opening.

The so called PC-muscle, or pubococcygeus muscle, runs from the front of the bony pelvis backwards to the tail bone or coccyx. This muscle is contracted when the urine jet is stopped during urination, and during orgasm this muscle is contracted at regular intervals to expel the seminal fluid.
The PC-muscle does not only have an important function during orgasm, it may be used to put brakes on the sexual excitement and delay orgasm during intercourse as well. By doing pelvic exercises a man may gain better control over the pelvic muscles and eventually control over the time of ejaculation.

**Male Sexual Response**

The researchers William Masters and Virginia Johnson were pioneers in mapping male and female sexual reactions. During the sixties they observed several thousand orgasms in their laboratory, and in their book *Human Sexual Response* they published detailed descriptions of the changes in the male and female sexual organs during different phases of sexual excitement and orgasm (1).

Common to both sexes they divided the reactions in four phases: Excitement, plateau, orgasm and resolution. There may be gliding transitions between the different phases. However, this model is useful to describe what happens with the sexual organs during sexual activity.

1. **Excitement**

The first notable change in the male sexual organ is that the spongy tissues are being engorged by blood to produce erection. Muscular fibers under the scrotal skin make the scrotum contract and move closer to the body. The glands of Cowper produce a clear fluid that is secreted into the urethra. Simultaneously the pulse and blood pressure are being elevated parallel to the increasing sexual excitement.

2. **Plateau**

At this level of excitement the penis is fully erect and the man is close to orgasm. The penile head grows even more and may become darker red or even purple because of the increased blood engorgement.

Pulse, blood pressure and muscular tension in the body increase even more. Some also get involuntary muscular contractions in the body and the respiration turns faster and deeper. Masters and Johnson observed that approximately one fourth of the men even develop a skin blush that starts in the upper abdominal region and spreads to the chest, neck and face.

Many men are not able to remain on this level more than for a short period before the orgasm comes. However, with efficient control of the pelvic
muscles, a man may learn to stay on the plateau phase for long periods during intercourse.

3. Orgasm

When orgasm is approaching, there is plenty of fluid in both the prostate gland and the seminal vesicles. During orgasm the pelvic muscles contract with regular intervals. Masters and Johnson measured the interval between the first contractions to be 0.8 seconds. After some seconds, the contractions become weaker and the length of the intervals increases.

Even muscle fibers in the urethra are contracting during ejaculation to help expel the seminal fluid through the urethral opening. Usually a man will thrust heavily during orgasm and move his body at the same pace as the pelvic contractions. Masters and Johnson also observed that men may have vigorous contractions in the legs and arms before and during orgasm. These contractions were named carpopedal spasms and are most prominent when the man lies supine during orgasm.

4. Resolution

After ejaculation the spongy bodies are gradually emptied of blood. The rate at which the erection subsides is dependent on the duration of the erection before orgasm amongst other factors.

At first the penis is reduced to a size approximately 50% larger than its size prior to erection. It may take some time before the penis has been reduced to its completely flaccid state.

Refractory Period

After ejaculation the man goes through a so called refractory period where complete erection and orgasm is unachievable. During this period he is less receptive to sexual stimuli, physical as well as psychological. He may feel tired and exhausted after orgasm, and this period may last from minutes to hours. The duration of the refractory period is shorter for younger than for older men.

Different Patterns of Response

The green graph shows a typical male response pattern. The y-axis represents sexual excitement while the x-axis represents time. Sexual excitement increases rapidly during the excitement phase and stays at a high level during the plateau phase. At the time of orgasm the excitement suddenly increases rapidly and falls to a low level immediately after ejaculation.
Different men may be represented by different graphs. When the orgasm regularly comes much earlier than desired, the man suffers from premature ejaculation. The red graph illustrates this pattern of response.

The sexual excitement increases rapidly, but the man is not able to remain at the plateau level for more than a short period until he suddenly experiences orgasm. It is completely normal to have early ejaculations at an early stage of marital life. The feelings may be so overwhelming that everything is happening at a very high speed. As the man becomes more experienced and feels more confident, he may relax and be able delay orgasm.

Premature ejaculation becomes a problem if the man is unable to gain better control of his sexual reactions over time. As mentioned under the section about pelvic floor exercises, a man may gain control over his reactions by training the pelvic muscles. There are specific training programs made to strengthen the PC-muscle and give total control of the male orgasm and time of ejaculation (2).

References
