CHAPTER 2

THE NECK OR CERVICAL SPINE

THE SPINE

Let us look at the human backbone (*Fig. 2:1*), the spine or spinal column. In the area of the neck the spine consists of seven bones, the vertebrae, which rest upon one another similarly to a stack of cotton spools. Each vertebra has a solid part in front, called the vertebral body, and a hole in the back (*Fig. 2:2*). When lined up as the spinal column, these holes form the spinal canal. This canal serves as a protected passageway for the spinal cord, the bundle of nerves which extends from head to pelvis.

Separating the vertebrae are special cartilages, called the discs. These are located between the vertebral bodies just in front of the spinal cord (*Fig. 2:2*). Each disc consists of a soft fluid centre part, the nucleus, which is surrounded and held together by a cartilage ring, the annulus or annular ligament. The discs are similar to rubber washers and act as shock absorbers. They are able to alter their shape, thus allowing movement of one vertebra on another and of the neck as a whole.

The vertebrae and discs are linked up by a series of joints to form the cervical spine or neck. Each joint is held together by its surrounding soft tissues — that is, a capsule reinforced by ligaments. Muscles lie over one or more joints of the neck and may extend upwards to the head or downwards to the trunk. At both ends each muscle changes into a tendon by which it attaches itself to different bones. When a muscle contracts it causes movement in one or more joints.

Between each two vertebrae there is a small opening on either side through which a nerve leaves the spinal canal, the right and left spinal nerve (*Fig. 2:3*). Amongst other tasks the spinal nerves supply our muscles with power and our skin with sensation. The nerves are really part of our alarm system: pain is the warning that some structure is about to be damaged or has already sustained some damage.

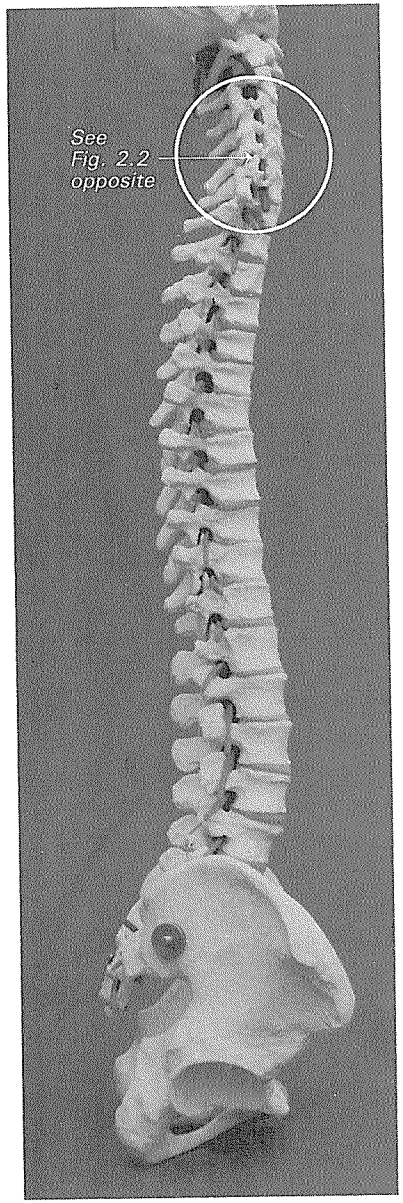

Fig. 2:1
The spine or spinal column, facing right.

Fig. 2:2
Two cervical vertebrae with disc between.

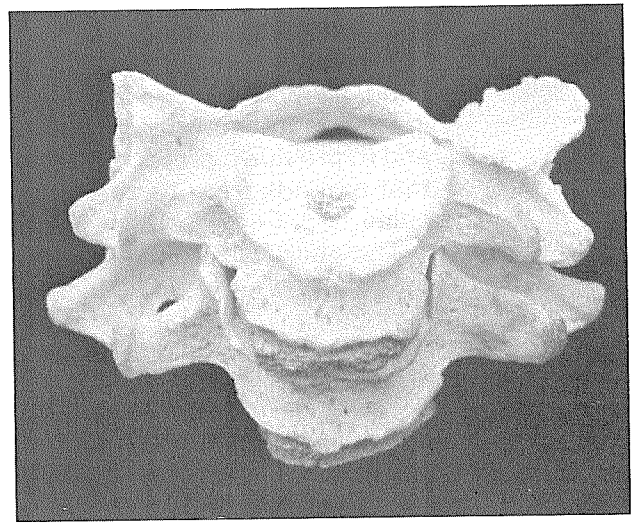

Fig. 2:3
Vertebrae and emerging nerve.