

When the protruded head posture is maintained long enough, it causes overstretching of ligaments. Thus pain will arise *in certain positions only*. Once the protruded posture has become a habit and is maintained most of the time, it may also cause distortion of the discs contained in the vertebral joints. At this stage *movements as well as positions* will produce pain. Neck problems, developed in this way, are the consequence of postural neglect. Poor neck posture is not the only cause of neck pain. It is, however, one of the main causes and the most troublesome perpetuating factor.

During sitting, the position of the low back strongly influences the posture of the neck. If the low back is allowed to slouch, it is impossible to sit with head and neck pulled backwards. You can easily try this out for yourself. Unfortunately, once we have been sitting in a certain position for a few minutes, our body sags and we end up sitting slouched with a rounded low back *and* protruded head and neck. For most people sitting for prolonged periods results in sitting with poor posture.

## ENVIRONMENTAL FACTORS

The design of transportation, commercial and domestic seating only encourages our poor postural habits. Rarely do the chairs available give adequate support to low back and neck and, unless a conscious effort is made to sit correctly, we are forced to sit badly. For the neck, ideally the back of the chair should come up high enough so that we can rest our head against it, but this support is not always included. An exception are the seats manufactured for most airlines but, unfortunately, their head-supports push head and neck into the protruded position which causes our problems. It is a brave person indeed who risks sleeping in one of these seats, for on waking he may well have the old familiar pains in the neck.

When travelling by car, train, bus or plane we are often compelled to sit in the position dictated by the seats provided. It may be necessary for the driver of a car, bus or truck, especially in bad weather, to protrude head and neck in order to peer through the windscreen.

Furniture in offices and factories all over the world is designed equally poorly and, to make matters worse, not adapted to

individual requirements. This is one of the reasons that so many people who have a sedentary occupation, and spend most of the day in a seated working position, develop low back and neck pain. Until furniture designers understand the requirements of the human frame and manufacture accordingly, we will continue to suffer from their neglect.

Finally, the design of domestic furniture is not any better. Unless your favorite lounge-chair is exceptional, you will have insufficient support in low back and neck and will continue to place strains on these areas when you relax for the evening. If your neck problems are aggravated by reading or watching television, it is unlikely that the contents of the book, newspaper or television programme is giving you a pain in the neck. The posture that you have adopted is the cause of the pain, and this posture depends to a large extent on the type of chair or support you use.

Although the poor design of furniture contributes to the development of neck problems, equal blame lies with the way in which we use this furniture. If we do not know how to sit correctly, even the best designed chairs will not prevent us from slouching. On the other hand, once we are educated in correct sitting, bad chairs will not have a big impact on our posture.

## HOW TO MANAGE PROLONGED SITTING SITUATIONS

In order to *prevent the development of neck pain* due to prolonged poor sitting it is necessary to (1) sit correctly, and (2) interrupt the protruded head posture or prolonged neck bending at regular intervals. In order to *treat neck pain* resulting from poor posture other exercises may need to be performed besides the postural correction. In this chapter I will only discuss the exercises required to reduce postural stresses and obtain postural correction. The exercises for relief of pain and increase of function will be dealt with in the next chapter.