PAIN IN THE NECK

An Information Booklet

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Published by the Arthritis Research Campaign
First published 2001
What's in this booklet?

In this booklet we explain how the neck works and the common causes of neck pain and related conditions. We describe simple ways of dealing with neck pain as well as the main medical and complementary treatments. At the back are some useful addresses and a list of medical terms with explanations. Please use the response form on the last page to suggest ways in which the booklet could be improved.

What's inside the neck?

The neck contains the top end of the spinal column or spine, which supports the head and also protects the spinal cord. The spinal cord is the nervous tissue which runs from the brain, through the neck and down the back to the rest of the body. This is shown in the diagram opposite.

The spine is made of bones called vertebrae stacked one on top of another to form a column. Between each bone there is a disc of gristle and the sides of the bones are linked by facet joints. Many ligaments and muscles are attached to the spine and fan out from the neck to the shoulder blades and back. The muscles control movements of your head. The spine protects the spinal cord from outside damage but allows you to move your head in any direction.

At the level of each disc, nerves come out from the spinal cord (see diagram opposite) through an opening in the side of the spine. These are called nerve roots. The nerve roots in the neck join to form the nerve trunks that run into the arms. Impulses travelling through these nerves send sensations such as touch and pain to the brain and messages from the brain to the muscles.

A cross-section of the head and neck with part of the spine shown magnified

The vertebral artery carries blood from the heart to the brain. It runs inside the bones of the spine and supplies the part of the brain that controls your balance.
What causes neck pain?

• **Non-specific neck pain**
Many people develop a stiff and painful neck for no obvious reason. Often it disappears after a few days. It may happen after sitting in a draught or after a minor twisting injury, for example while gardening. The underlying cause for this type of neck pain is not fully understood, so it is called ‘non-specific neck pain’. Having non-specific neck pain does not mean that your neck is damaged and often it happens in people whose necks would appear completely normal under an x-ray. It is the most common type of neck pain.

• **Cervical spondylosis**
With everyday use over many years the discs and the facet joints become worn. This wear varies from person to person. The discs become thinner and this causes the spaces between the vertebrae to become narrower. Also, ‘spurs’ of bone, known as osteophytes, form at the edges of the vertebrae and the facet joints. These changes are called ‘cervical spondylosis’. They can be seen on x-rays and are present in almost everyone by the age of 65 years. However, many people have no neck pain despite having quite significant changes in the neck on their x-rays.

Pain may come from the linings of worn joints or from stretched ligaments. Occasionally bulging discs or osteophytes pinch the nerve roots and this causes pain or numbness that travels into an arm. If the vertebral artery is pinched, this reduces the blood supply to the area of the brain that controls balance and this may lead to dizziness. Very rarely, in severe spondylosis, the spinal cord can be squeezed which causes weakness and numbness in the arms and legs.

• **‘Whiplash’**
This type of injury often follows a rear-end collision in a car. In this type of collision, first the body is carried forward and the head flips backwards. Then, as the body stops, the head is thrown forwards (see the diagram below). Following a whiplash injury there is often a delay before the pain and stiffness start. Although whiplash
can badly damage your neck, the majority of people who suffer these shunt accidents do not have major damage. In most cases injuries feel better within a few weeks or months. Seat belts and properly adjusted head rests in cars have significantly reduced the damage from whiplash injuries.

- **Tension headaches**
Most muscles of the body relax completely when they are not being used but some muscles (known as anti-gravity muscles) have to work all the time in order to keep your body upright. Muscles at the back of your neck must always be tensed otherwise your head would fall forwards when you are sitting or standing. When these muscles work too hard it can cause neck pain and tension headaches. People who are worried or under stress often tighten their muscles more than is necessary to hold their head upright — in other words, they are literally ‘tense’. Tension headaches are very common and are often wrongly called migraines.

- **Torticollis**
Sometimes if you have neck pain, you also have muscle spasms that turn the head to one side. This is called torticollis. Although not very common, it is an unpleasant side-effect of neck pain. It usually occurs only briefly, although it is possible to have longer-lasting torticollis.

### What are the symptoms of neck problems?

- **Pain**
You may feel pain in the middle of your neck or on one side or the other. The pain may travel to the shoulder and shoulder blade or to the upper chest. In tension headaches the pain often travels to the back of the head and sometimes to the side of the head and behind the eye or even into the ear. If a nerve root is pinched then, as well as the pain, you feel numbness or tingling that can be felt down the arm as far as the fingers.

- **Stiffness**
This is common. It is painful to move and your muscles feel tight. Stiffness is often worse after long periods of rest or sitting in one position for a long time. You may also have muscle spasm or you may lose movement because of changes to the bones and discs in cervical spondylosis.

- **Noisy joints**
You may hear or feel clicking or grating noises (called crepitus) as you move your head. The noises are caused by roughened surfaces moving against each other and by sliding ligaments — and are often loudest at the top of the neck. This is a common symptom which can be upsetting.

- **Dizziness and blackouts**
These may be caused by pinching of the vertebral artery by bony changes in cervical spondylosis. You may feel dizzy when looking up and occasionally have a blackout.

### How can I help myself?

Most attacks of neck pain settle down within a few days and do not need medical treatment. Resting for a few days is often all you need.

- **Painkillers**
You can take simple painkillers such as paracetamol.