

# The troublesome jaw joint

## Oral and Maxillofacial Department

Patient Information Leaflet

### Introduction

The jaw joints are small but they have a very complex action. They must resist heavy biting forces and they must allow you to open and close your jaw, protrude it and shift it from side to side.

#### Joint design

In order that you can perform these complex movements, the jaw must be very loose. In addition, there is a sheet of cartilage inside each joint, acting as a cushioning mechanism between the two bone surfaces. The opening and closing action is not just a simple hinge movement but involves a gliding action by the lower jaw (see figure 1).

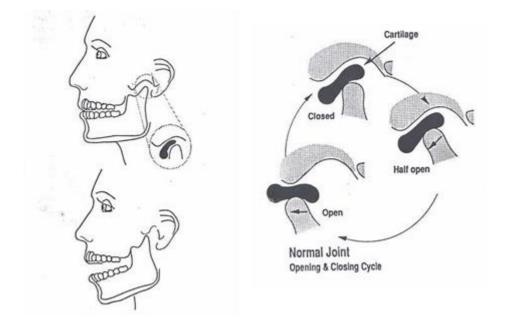


Figure 1 shows the normal joint opening and closing cycle

#### Clicking

Sometimes a joint will click during opening or closing. This is because the cartilage inside the joint has lost its proper gliding action (see figure 2). Often the clicking will be painless but sometimes it is accompanied by pain and local tenderness.

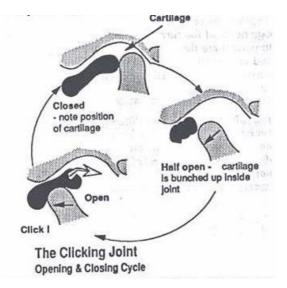


Figure 2 shows the opening and closing cycle of a clicking joint

#### Locking

After a period of time, a clicking joint may begin to lock because the cartilage is failing to click back into position as the jaw opens. At first it may be possible to free the locked joint by massaging or pressing it, or perhaps by a wiggling action of the jaw. Locking usually lasts a few seconds only but it may become more frequent or prolonged. In a few cases the joint action may become permanently restricted.

Therefore, **jaw joint dysfunction syndrome** is characterised by clicking, locking and sometimes pain.

## Why me?

In most cases there is no obvious reason why you have developed this condition. Sometimes an uncomfortable clicking joint will develop after a specific incident such as an injury or a recent jaw operation. Sometimes it is associated with an abnormal bite or a tooth-grinding and clenching habit. It is more common in those with particularly mobile joints (hypermobility).

### How can it be treated?

Jaw joint dysfunction is common. It may be managed by your family dentist or you may be referred to an oral and maxillofacial surgeon.

If your joints click but there is no pain or locking, treatment is not necessary. Almost one in five of the population has a painless clicking jaw joint. If there is pain and/or locking, treatment may be necessary. It is a difficult problem and treatment is not always successful.

#### **Non-surgical treatment**

The aim is to reduce spasm in the jaw muscles and allow the joint structures to find their correct rest position. Any of the following may be recommended:

#### Jaw exercises

These are used to educate the jaw in the correct pattern of movements.

#### **Bite analysis**

Sometimes a displaced tooth will interfere with the bite and cause abnormal jaw movements.

#### Bite guard or bite raising appliance

There are several designs of these plastic plates. They are worn on the teeth and take some of the biting stress off the joints, allowing the cartilage to repair itself and return to its correct position within the joint.

#### Physiotherapy

This may help to overcome spasm within the jaw muscles.

#### Medication

Muscle relaxants or other medications may be prescribed, usually in conjunction with the other forms of treatment already mentioned.

#### Surgery

This is recommended for only a few patients. The aim of the surgery is to reposition any displaced cartilage and reduce the hypermobility of the joints or correct the abnormal bite.

The decision to undergo surgery is always yours. The degree of success depends on the specific problem, the age, health and cooperation of the patient. These factors differ in every case and can limit the surgeon and affect the surgical result.

#### What happens when I am referred for surgery? Your first visit

Your surgeon will take a careful medical history and examine your jaw joints in action. You may be asked about medical problems that could interfere with surgery or anaesthesia.

#### X-rays

X-rays showing the entire jaw are necessary. Unfortunately plain X-rays do not show soft tissues such as the joint cartilage, and are of limited value in telling the surgeon exactly what is happening inside the joint. However, they are useful in excluding other possible causes of joint pain.

#### X-ray precautions:

X-rays use a small amount of radiation which may add slightly to the normal risk of cancer.

## Female patients – you must tell us if you are, or might be, pregnant. If you are not sure, a pregnancy test will be offered.

Other investigations that may be carried out include:

#### Tomograms

These are special X-rays that give cross-sectional views of the joint.

#### Arthrograms

Contrast dye is injected into the joint before the X-ray is taken. This gives a better view of the joint cartilage but is a complicated technique and the results may be difficult to interpret.

#### Arthroscopy

A fine 'telescope' is inserted into the joint in order to obtain a direct view. This is a very useful examination for large joints such as the knee but unfortunately only the upper space of the jaw joint may be examined in this way and only a limited examination is possible.

#### Examination under a general anaesthetic

This allows manipulation of the joints without any tension from the muscles. It helps your surgeon decide whether there is a genuine mechanical obstruction within the joint that could possibly be treated surgically, or whether another cause must be looked for.

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Oral and Maxillofacial Surgery Department Russells Hall Hospital Dudley West Midlands DY1 2HQ Telephone: 01384 244166 (9am to 5pm, Monday to Friday)

This leaflet can be downloaded or printed from: <a href="http://dgft.nhs.uk/services-and-wards/head-and-neck/">http://dgft.nhs.uk/services-and-wards/head-and-neck/</a>

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

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