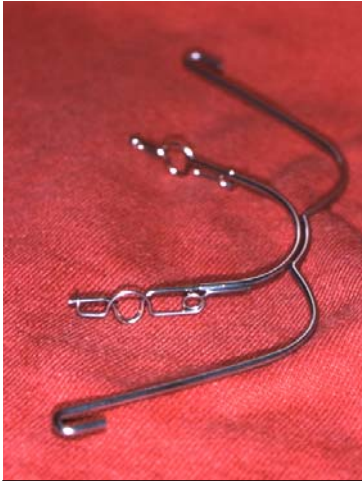


**The Nitom<sup>2</sup> Locking Orthodontic Facebow™  
and why you would want your Orthodontist to use it  
rather than the standard facebow  
Dr. R. H. A. Samuels**



**Figure 1  
Nitom<sup>2</sup> Locking  
Facebow™ has two  
simple catches to  
hold it in place.**



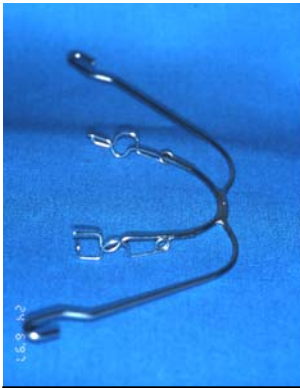
**Figure 2  
Standard facebow has no  
catches to hold it in place.**

**The Nitom<sup>2</sup> Locking Facebow™ has two simple clips to prevent it coming out at night. The standard facebow does not. That's why you would ask for the Nitom<sup>2</sup> locking facebow™ !**

**Information for patients and parents on headgear design and function:**

Headgear has been used by Orthodontists for a long time to help treat some of the more difficult problems encountered when straightening teeth. It is a simple and very effective piece of orthodontic equipment.

Headgear is also known as extra oral traction and consists of a facebow (Figure 3) the piece that fits in the mouth, and either a neckstrap (Figure 4) or headcap (Figure 5) that goes around the back of the head or neck.



**Figure 3**  
**Nitom<sup>2</sup> Locking**  
**Facebow™**



**Figure 4**  
**Neckstrap with**  
**safety modules**  
**included**



**Figure 5**  
**Headcap with**  
**safety modules**  
**included**

The headgear prevents the upper back teeth from moving forwards, and sometimes will move them back a little. Orthodontists call this increasing the “anchorage” or helping to prevent unwanted tooth movements. This is a simple and very useful device in helping to treat a variety of problems in orthodontics where there is not enough “anchorage” in the mouth.

Despite alternative devices being suggested to replace headgear there are still things that headgear can do that other devices cannot. Patients are usually only asked to wear headgear on quiet evenings and in bed at night. This is usually sufficient to help the orthodontist get the teeth in the right position. But each case is different and your own orthodontist will advise you of how many hours of wear are required in your particular case. It usually takes a couple of nights to get used to the headgear so please be patient.

Below are photographs of 4 patients who wore headgear for part of the time with their braces to achieve great results. Cases 1 and 2 avoided having teeth extracted because they wore their headgear well and this helped to fit all the teeth in line. As you can see there has been quite a change and it's made a big difference to the appearance of the teeth for all four patients.

**Before**

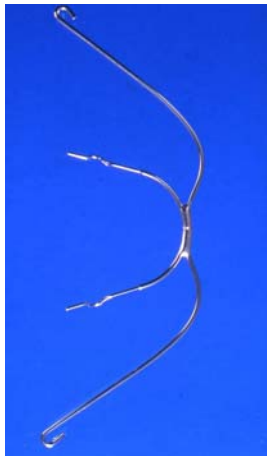
**After**



So where does **the Nitom<sup>2</sup> facebow™** come in. Well, unfortunately there have been a few reports of the **standard facebow** (figure 6) injuring the patient during their treatment. These injuries have been caused in two ways.

The first cause: When rubber bands have been used to attach the facebow to the headcap or neckstrap as shown in figures 7 and 8. These have caused the standard facebow to catapult back and hit the patient in the face or mouth.

The second cause: the simple standard facebow has come out at night and the patient has rolled onto the pointed ends and hurt themselves. The injuries have ranged from minor scratches to the loss of an eye.



**Figure 6**  
**Simple standard**  
**facebow**



**Figure 7**  
**Headcap with rubber**  
**bands and elasticated**  
**neckstrap**



**Figure 8**  
**Different type of**  
**headcap with rubber**  
**bands**

So to prevent these injuries alterations have been made to the headcaps and neckstraps and the facebow. The headcaps and neckstrap now have self releasing modules added to them and the rubber bands and elastic materials have been removed (Figures 4 and 5). This alteration restricts the travel in the extendable straps. If this travel is exceeded then a safety release mechanism snaps open to prevent the catapult effect. These modules should have a short travel.

To prevent the standard facebow coming out at night two locking clips were added to it. This facebow is called **the Nitom<sup>2</sup> locking facebow™**. To test this change in design to see if it worked the Nitom Locking facebow was fitted to 697 patients in a study carried out over two years. It worked very well and provided 166,538 detachment free nights of wear for these patients. The results were published in the American Journal of Orthodontics and Dentofacial Orthopaedics in 2000.

So headgear is very useful and it helps produce great results in some difficult cases. It does require the patient to be helpful and cooperate and follow the orthodontists instructions.

However, there have been a few patients who unfortunately over the years have suffered an injury from the standard facebow. So the design of the headgear and facebow have been changed to help prevent these injuries and enable patients and their Orthodontist to continue to achieve great results with this piece of orthodontic equipment.

**The Nitom<sup>2</sup> Locking Facebow™ has two simple clips to prevent it coming out at night. That's why you would ask for this type of facebow !**

The Nitom<sup>2</sup> Locking facebow™ now has over 10 years of clinical experience.

It is manufactured exclusively by Ortho-Care (UK) Ltd, 5 Oxford Place, Bradford, West Yorkshire, England, BD3 0EF, (you may want to add more material here about Ortho-care or G & H)