Quick Wire Femoral Alignment Jig
Introduction

The Quick Wire Jig differs from existing neck clamping devices by separating the securing action from varus/valgus adjustment. This enables the device to be securely fixed to the femoral neck by means of symmetrical, directly opposing jaws, providing secure fixation of the instrument. The varus/valgus angle may then be adjusted.

This surgical technique addendum covers the use of the Quick Wire Femoral Alignment Jig within the BIRMINGHAM HIP® Resurfacing System (BHR®). This technique is used along with surgical technique #4567-0103 for the BHR System.

Nota Bene

The technique description herein is made available to the healthcare professional to illustrate the suggested treatment for the uncomplicated procedure. In the final analysis, the preferred treatment is that which addresses the needs of the specific patient.
Surgical Technique

With the clamp in its open position the jig is introduced to the femur, sliding the jaws of the device around the head and not over it (Figure 1).

The jaws are then clamped securely around the femoral neck with the jaws positioned superiorly and inferiorly (Figure 2). The self locking ratchet maintains a secure grip.

The Quick Wire Jig utilizes a centring mechanism which enables the guide wire to be placed in the centre of the femoral neck. By clamping the Quick Wire Jig to the femoral neck, the neck centre is commonly located.

The use of the alignment rod provides a visual reference to adjust the unique varus/valgus mechanism (Figure 3).
The varus/valgus angle alignment is adjusted by loosening the adjustment screw and directing the drill guide until the desired orientation is achieved (Figure 4).

When the appropriate varus/valgus angle has been identified, the adjustment screw is tightened leaving the alignment rod attached (Figure 5).

**Surgical Tip**
The curve of the inferior neck may be used as a visual reference. The desired valgus orientation commonly runs parallel to the medial calcar.
Surgical Technique

A guide wire may be inserted into the small hole in the inferior jaw to facilitate correct anteverision of the device. Align the guide wire with the inferior neck by toggling the device to select the appropriate anteverision angle (Figure 6).

With the jig aligned in both planes it now may be secured in position, by depressing the drill guide into the femoral head (Figure 7).

**Surgical Tip**
The drill guide may be locked in place by the use of a light hammer to engage the spikes into the femoral head.

After confirming the final position, insert the guide wire through the drill guide into the femoral head and neck (Figure 8).
Removal of the device is achieved by releasing the ratchet, opening the jaws of the jig and removing the drill guide (Figures 9 and 10). The jig should then be withdrawn from the guide wire though the slot located in the drill guide barrel.

**Surgical Tip**
This may be assisted by loosening of the locking screw before removing the drill guide from the jig.

If used in conjunction with the BIRMINGHAM HIP® Resurfacing device, the guide wire position may now be verified by using a conventional stylus (Figure 11).