Setup and Use of the Wixson Anterior Suspension Hook System

by Richard L. Wixson, MD

**Designed to facilitate elevation of the proximal femur during a total hip replacement through the direct anterior approach**

The primary purpose of the anterior suspension hook is to facilitate elevation of the proximal femur during a total hip replacement through the direct anterior approach. It is primarily used when the procedure is performed on a standard operating room table. The hook is put in place for the femoral preparation after the acetabular component has been implanted.

**Primary Use**

Following release of the soft tissues around the femoral neck and trochanter to allow elevation and exposure of the proximal femur, the table is usually flexed to allow the extremity to be extended, externally rotated and adducted.

The rotating clamp is attached to the side rail over the drapes and the vertical bar positioned at a point distal to the incision. Gloves are always changed after handling the rotating clamp, which is below the level of the operating field.

The horizontal attachment and threaded tightening rod are placed on the vertical rod and rotated over the center of the wound.

The hook is then passed above the lesser trochanter around the posterior proximal femur. Once in place, the hook is lifted up and one of the links of the chain is attached to the bottom of the threaded tightening rod. A retractor can then be placed beneath the tip of the greater trochanter and the threaded rod tightened while keeping the extremity adducted and externally rotated. The hook itself helps retract the rectus medially. A lateral Hohmann retractor is useful for pulling the tensor back for exposure.

Once in place, offset broaches are used to open up the proximal femur in standard fashion.

At the point where a trial reduction is needed, the threaded rod is loosened and detached from the chain and hook, the horizontal arm and threaded rod are taken off and set aside, the hook removed from the wound and the vertical bar and clamp are left on the table. Following a trial reduction, the device can be quickly reassembled, if needed, for removal of the trial broach and placement of the final implant.

**Additional Use**

An additional use of the assembly is to use it to distract the joint to aid in visualization of the lateral and posterior capsule that need to be released prior to the femoral preparation. In this situation, the rotating clamp is attached to the side rails and the vertical bar is placed into the clamp, then rotated down so it points toward the foot but is above the table. The horizontal attachment and threaded tightening rod can then be attached. The hook is placed inside the femoral neck to apply distal distraction, which opens up the space between the femoral neck and acetabulum to facilitate the soft tissue releases needed for the procedure.
1. Attach clamp over draped table bar.

2. Insert vertical bar into clamp and tighten in place.

3. Bar position can be rotated by depressing side triggers and rotating until position is satisfactory. Release triggers to lock.

4. Attach horizontal attachment and lock into position.

5. Insert threaded tightening rod apparatus through slot in arm of horizontal attachment.

6. Place hook around femur as described in technique. Bring chain up to meet notch in threaded tightening rod.

7. Use tightening rod and chain apparatus to raise and lower hook as needed.

Wixson Anterior Suspension Hook System

**PRODUCT NO:** 6245-00 [Complete Unit]

**Replacement Parts:**
- 6245-01 [Tightening Rod]
- 6245-02 [Horizontal Attachment]
- 6245-03 [Vertical Bar]
- 6245-04 [T-handle Bolt]
- 6245-05 [Offset Femoral Hook]
- 9125 [Rotating Table Clamp]

Complete unit includes: Tightening rod, horizontal attachment, vertical bar, T-handle bolt, offset femoral hook, and rotating table clamp

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