

# NEWTON WELLESLEY ORTHOPEDIC ASSOCIATES, INC.

## COLLES FRACTURES

### Introduction

Colles fractures are one of the more common fractures seen in orthopedic practice and usually occur in patients 50 years of age and older. The fracture is the result of a fall from standing height onto an outstretched arm. Conditions such as osteoporosis that reduce bone strength predispose older patients to this type of fracture. Patients will note swelling, deformity of the wrist and pain. An x-ray will demonstrate the fracture, which is usually displaced and requires **reduction** (repositioning the fracture) and application of a splint or cast.

### Anatomy

Colles fractures by definition involve the **distal third of the radius** and may also include the **ulna styloid**. The distal fragment will often be dorsally angulated. The radius is the main weight-bearing bone at the wrist joint and in order for the wrist and hand to function optimally, the normal alignment of the bones must be restored.

### Treatment

Non-displaced Colles fractures can be treated with casting. Fractures that are displaced require reduction. Anaesthetic is injected into the fracture site, the bones are repositioned and a splint is applied. An x-ray is then obtained to check the position of the bones. The splint is left in place for 7-10 days and then a cast is applied for 3 weeks. The position of the fracture is followed carefully by x-ray to ensure that the bones do not shift significantly. If this occurs, patients may need surgery to pin the bone fragments in place. Patients are instructed in elevation and advised to move the fingers frequently to prevent further swelling and stiffness. Once the cast is removed, a splint is given and patients are instructed to begin range of motion exercises with the wrist. Patients will often be referred for physical therapy as it can take 3-6 months to regain full function after a Colles fracture.