

# Case Study: Nadine

## Conditions Treated

Hip Dysplasia

## Age Range During Treatment

39 years

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# BACKGROUND

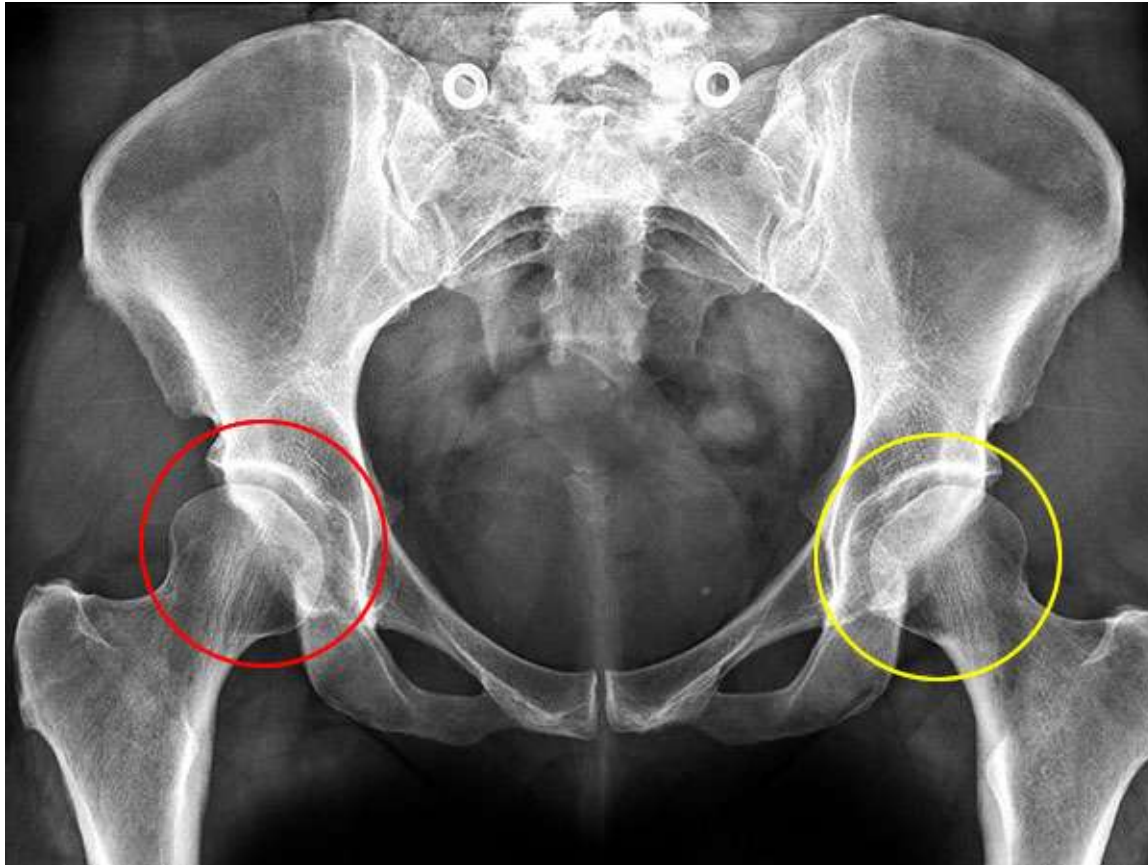
Following the birth of her second child, Nadine began experiencing pain in her groin that was intermittent but would become worse with prolonged activities. After six years, the pain began to worsen and ascending stairs became especially painful. Following several months of this increased pain she visited a doctor and an MRI revealed a cartilage (labral) tear in her right hip. Surgery was recommended but Nadine chose physical therapy instead which actually worsened her symptoms.

Nadine followed up with a specialist who diagnosed her with bilateral hip dysplasia and recommended a right hip periacetabular osteotomy. Prior to this she had not been using any pain medication for relief but a steroid injection was found to be effective. A few months later Nadine visited me for a second opinion on her hip dysplasia.

# EVALUATION

During Nadine's evaluation, she told me that when active, she would limp at the end of the day but I observed that she wasn't limping when walking short distances in the office. I found that she did not limp with minor walking around the office but reported a limp at the end of the day with activity.

She had a good range of motion in flexion, abduction, and internal rotation but experienced pain during flexion and internal rotation. X-rays revealed that her hip dysplasia was worse on the right than on the left. I concurred with the recommendation for a right hip periacetabular (Ganz) osteotomy.



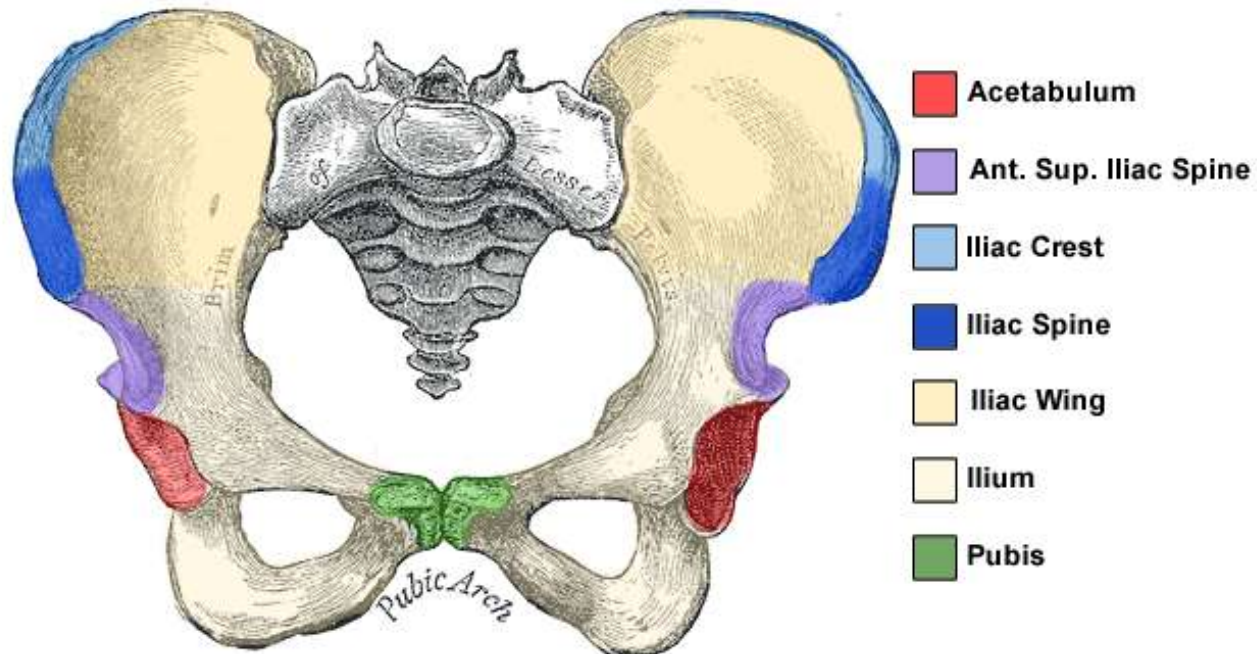
X-ray showing bilateral hip dysplasia as a result of shallow acetabuli failing to provide sufficient coverage of the femoral heads.

# TREATMENT

# Right Periacetabular (Ganz) Osteotomy



# Anatomy of the Human Female Pelvis



A cosmetic incision was made along the bikini line to provide access to the anterior and posterior of the hip (ilioinguinal incision). The muscles were then separated and care was taken to protect the femoral and lateral femoral cutaneous nerves. An osteotomy of the anterior superior iliac spine was performed to avoid lifting muscles off the pelvis and this avoids weakening the muscles. Homans screws were then applied around the pubis followed by an osteotomy.

Next a partial ischium and complex ilium osteotomy were performed. A Schanz pin was applied to the anterior superior iliac spine and followed by a correction of the iliac wing which was fixed in place with four 3.5mm screws. Having achieved good fixation and confirming this with x-rays, the anterior superior iliac spine was reconstructed.

The wound was irrigated, closed in layers, and dry sterile dressings were applied.



X-ray of Nadine's hip after surgery.

# Observations

# Three Weeks

Nadine's surgical wound was healed so her sutures were trimmed and steri strips were applied. Her hip had good range of motion and x-rays revealed that all hardware was in place and there was good coverage of the femoral head. She was instructed to continue use of her crutches and injections of Lovenox (anticoagulant used to prevent blood clots) but was to begin slowly weaning off of her medications.



# Six Weeks

Nadine had completely weaned herself off of her medications and x-rays showed that her osteotomies were healing. She was allowed to begin progressive weight bearing on her right leg.



# Three Months

X-rays revealed that Nadine's osteotomies had healed. While she had good range of motion with no pain she was experiencing some pain in her groin. She was to begin physical therapy to strengthen her muscles and consider a non-steroidal anti-inflammatory drug (NSAID) to relieve pain and inflammation.



CONCLUSION



Nadine's case demonstrates the usual progression of patients after a periacetabular osteotomy. In the months since her surgery, Nadine's right hip pain has been resolved and she now has the option of having the hardware in her right hip removed if she chooses. She has been cleared to resume all activities with the understanding that stretching and exercise will remain very important.

X-rays have shown no changes to the mild case of dysplasia in her left hip. However, as Nadine has been experiencing minimal pain in her left groin, I will continue to follow her left hip for any changes in the severity of pain or condition of the hip.



X-ray eight months after surgery showing a completely healed osteotomy and resolved case of right hip dysplasia with good coverage of the femoral head. The mild case of left hip dysplasia will remain under observation.

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