

What I Have Learned in Over a Decade About the Sciatic Nerve

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INTRODUCTION

- Considering the sciatic nerve can be entrapped by structures in each layer of the hip, a comprehensive physical examination with a thorough understanding of anatomy and biomechanics is critical in cases of deep gluteal pain.

DEEP GLUTEAL SPACE ANATOMY

- Anatomical limits
- The piriformis muscle
- Neural and vascular structures

SCIATIC NERVE BIOMECHANICS

- Excursion
- Strain

NEW DEVELOPING CONCEPTS

- Sciatic Ancillary Branch
- Sciatic Nerve Biomechanics and Hip Abduction

ETIOLOGY

CLINICAL PRESENTATION AND ANCILLARY TESTING

- Comprehensive physical examination
- Detailed history
- Key Physical Examination Test
 - Palpation in seated position
 - Passive piriformis test
 - Active piriformis test
 - Ischial femoral impingement test
 - Long stride gait with terminal hip extension
 - Hamstring active 30degrees
 - Hamstring active 90 degrees
 - Long stride gait with hip Flexion
- Standardized radiographic interpretation
- Symptoms
- Injections

TREATMENT

- Non-operative treatment
- Endoscopic techniques

DIFERENTIAL DIAGNOSES

PROXIMAL VS DISTAL SOURCES

- Intrapelvic Sciatic Entrapment
- Pudendal Nerve Entrapment
- Ischiofemoral Impingement
- Proximal Hamstring Tendon Lesions
- Piriformis Entrapment
- Greater trochanteric Sciatic Impingement

NEXT FRONTIER

- Ischiofemoral Impingement and Hamstring Syndrome as Distal Causes of Posterior Hip Pain: Where Do We Go Next? Clin Sports Med 35 (2016) 469–486
- Hip Spine Connection

REHABILITATION

- Sciatic Strain
- Knee Brace – Ilizarov
- Hip Abduction
- Nerve Mobilization/Glides
- Piriformis stretch