

The functional anatomy of hip abductors

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The gluteal region was dissected in 18 adult cadavers. The attachments, directions, and orientations of the fibres of the tensor fasciae latae, gluteus medius, and gluteus minimus muscles were noted. The gluteus medius was found to be formed of three distinct parts, while the gluteus minimus was formed of two parts only; each part of these muscles had its separate innervations from the superior gluteal nerve. The tensor fasciae latae muscle arose from the anterior part of the outer lip of the iliac crest and was attached to the iliotibial tract slightly below and in front of the greater trochanter. The direction of the fibres of the anterior and middle parts of the gluteus medius and the anterior part of the gluteus minimus suggested that they have vertical pull and initiate abduction which is then completed by the tensor fasciae latae. The function of the posterior parts of the gluteus medius and minimus, being parallel to the neck of the femur, would be stabilization of the femoral head in the acetabulum during the different stages of the gait cycle. By resolving the line of action of the tensor fasciae latae muscle, it was found to help the muscle to fix the hip and femur together during the stance phase and to counteract the weight of the body during standing position. (Folia Morphol 2009; 68, 2: xx-xx)

Key words: gluteus medius, gluteus minimus, tensor fasciae latae, hip abductors