

Turning the Tables on Turnout

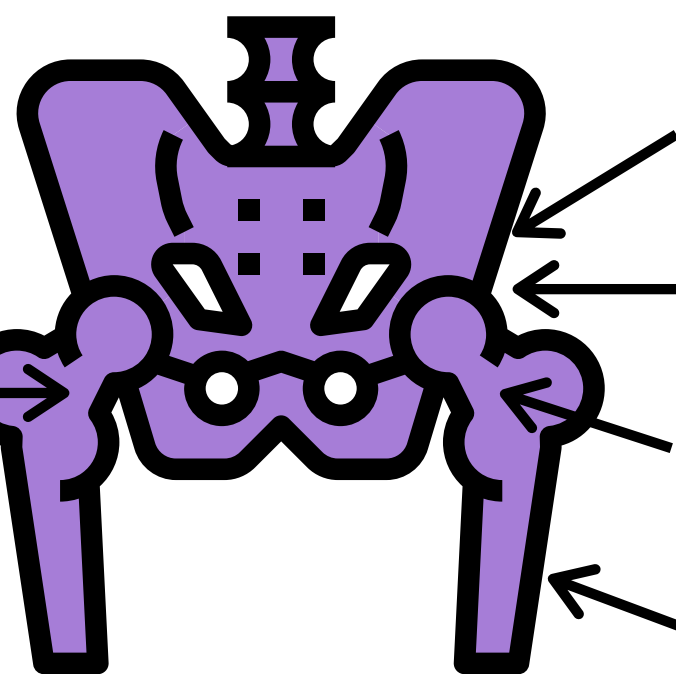
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Factors Influencing Turnout

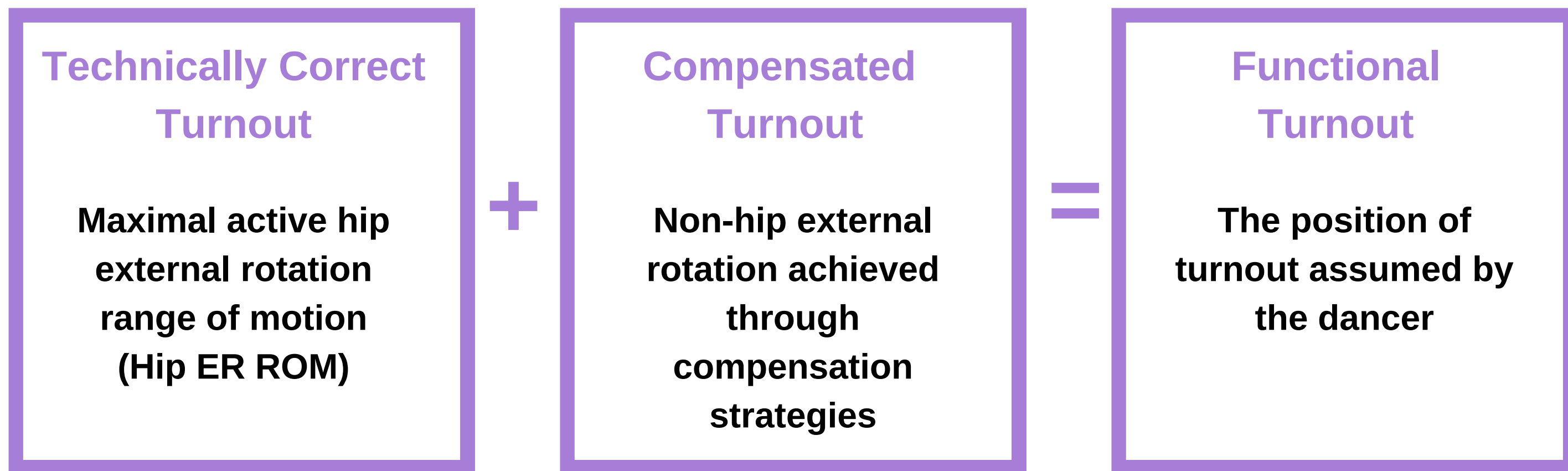
Bony factors

- Orientation and depth of acetabulum
- Shape of femoral neck
- Degree of femoral torsion
- Degree of tibial torsion (not shown)

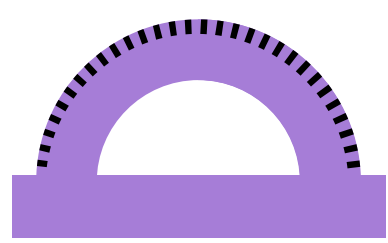


Soft Tissue Factors

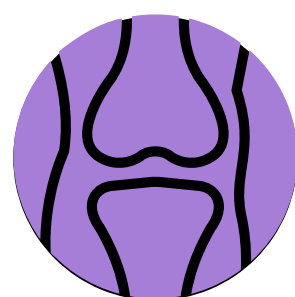
- Activation pattern of key muscles
- Capsular and ligamentous restrictions
- Strength of deep external rotators
- Muscle groups that cross the hip (eg. Hamstrings, Glutes)



Realistic turnout for individuals must be based on:



ROM



Alignment



'both the number and severity of non-traumatic injuries were associated with reduced functional turnout but not with hip ER ROM' (Negus, Hopper and Briffa, 2005)

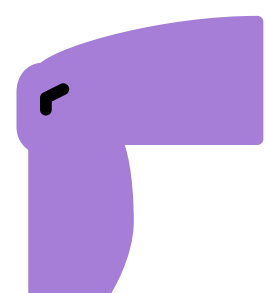
Compensation strategies include:

TUCK



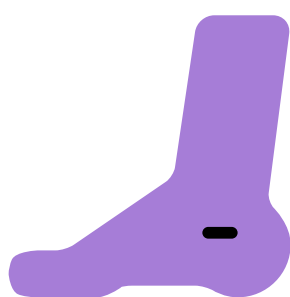
Increased posterior pelvic tilt

SCREW



Increased torsion of the knee

ROLL



Increased pronation of the foot



'Compensated turn out was significantly related to experiencing more than one injury (traumatic and overuse combined) in university level modern dancers' (van Merkensteijn and Quin, 2015)

Sources:

Negus, V., Hopper, D., & Briffa, N. K. (2005). Associations Between Turnout and Lower Extremity Injuries in Classical Ballet Dancers. *Journal of Orthopaedic and Sports Physical Therapy*, 35, 307–318.

van Merkensteijn, G. G., & Quin, E. (2015). Assessment of Compensated Turnout Characteristics and their Relationship to Injuries in University Level Modern Dancers. *Journal of Dance Medicine & Science*, 57–63. <http://doi.org/10.12678/1089-313X.19.2.57>: