CONCLUSIONS

- The model of active hip abduction and SIJ injury indicated that those with hip abduction had an increased risk of an SIJ injury by 11.5%.
- Why an 1 in hip abduction may be related to the biomechanical alteration that occurs at the sacrum during lurching, running, and lateral movements in soccer.
- The overall hip abduction also may influence the “force closure” mechanism that is weakened by the latissimus dorsi, gluteus maximus, and thoracolumbar fascia (1-9).
- If the sacrum cannot properly serve as the gateway between the pelvis and lumbar spine, the forces of the lower extremities and the spinal column, then the forces will still be present in the SIJ and result in injury.
- In this model of FMS with active hip abduction, those with the highest angle of active hip abduction, and the lowest FMS composite scores had an increased risk of SIJ injury by 16.8%. These findings suggest that ROM, especially hip abduction, and FMS scores may be an important consideration in deciding which variables to evaluate, as well as to consider for prevention and intervention strategies.
- The risk of injury suggested that these 2 screening variables are related to each other. The 7 fundamental movements of the FMS are primarily performed in the sagittal plane; however, the subject must be able to maintain stability to not deviate into the frontal or transverse plane.
- This stability is controlled partly by the gluteus medius, which is the main contributor to SIJ. The need to activate the gluteus medius during certain functional movements may be why the model’s ability to predict an SIJ injury improved with the inclusion of the FMS.

Currently there is no controlled clinical screening tool to assess predictive factors for SIJD in the adolescent soccer athlete population. Years of playing together, the FMS, and pelvic positioning may also be clinically useful assessment measures to predict an SIJ injury.