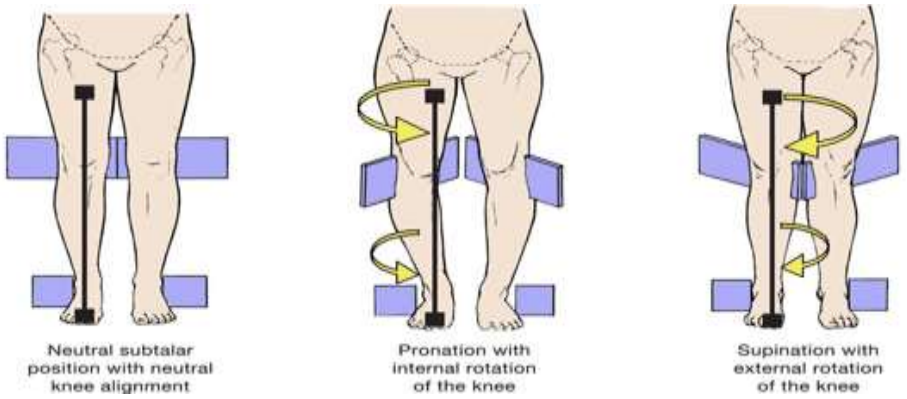
Foot-Ankle Alignment

The purpose of evaluating the biomechanics of the feet is to inspect the natural features of the foot to determine how the lower body will be affected when weight bearing, especially with higher impact activities such as running. If normal foot function is compromised, as a result of alignment, then normal foot function during gait will be compromised, and can potentially result in injury. The most common issues found are over- pronation or supination when the foot rolls excessively to the inside or outside respectively. This places stress on various tissues throughout the lower limb. If an alignment issue is noted during evaluation suggestions for corrective footwear and exercise can be made.



Functional Movement Screen (FMS)

The **F**unctional Movement Screen (FMS), was designed by physical therapists to identify functional movement deficits and asymmetries that may be predictive of general musculoskeletal conditions and injuries. The ultimate goal of this screening being able to modify the identified movement deficits through an individualized exercise prescription. The FMS consists of 7 fundamental movement component tests that are scored on a scale 0-3. This tool has been proven to be reliable, and is utilized regularly by the military services and professional/collegiate athletic teams.

The Run-Sport Clinic will include: Rotary Stability tests

Functional Step Down Test

A functional assessment tool to evaluate dynamic control of hip, knee and ankle stabilizers. The test provides valuable information on the relationship of hip stability, lower extremity strength and proprioception needed to perform the functional task of descending stairs. This translates into strength required for other activities such as sitting, squatting and higher level sport specific activities such as running, skiing, basketball, etc.

Flexibility Screen

Flexibility of the lower extremity is extremely important to avoiding injury and improving running efficiency. At all the joints in the lower extremity there is a constant need for balance around the joints. Any imbalance in the system creates a potential for injury. The joints and the muscles must be free to move without restriction. If a restriction or limitation exists then stress/strain is placed on that area. There will also be stress/strain put on the adjacent areas of the body. This is often why a problem in one area is responsible for creating a problem in another area of the body. The Flexibility Screen will assess the flexibility of the hamstring and hip flexor muscles. Imbalances in the flexibility of these muscles can alter running gait, and put strain on the low back, hips, knees, ankles and feet.

Run-Gait Analysis

Gait analysis is the study of walking and running technique. The running gait can be divided into various stages of movement. The proper upper and lower extremity position during each stage is crucial to maximizing performance and minimizing injury.

During running the lower extremity must balance, absorb shock, transfer force and propel the body repeatedly for long periods of time. In order to do this, every aspect of movement must be as efficient as possible to prevent injury. Studying the movement of the lower extremities and how they interact together from the trunk down to the feet, can provide valuable information. Gait Analysis of running includes looking at:

- Trunk and pelvis position
- Angles of the hip, knee and ankle
- Foot position
- Stride/step length
- Foot strike

Exercise Station

The exercise station is the bridge between the evaluation process and injury prevention. At this station, physical therapists and personal trainers will demonstrate a variety of exercises that are designed to address the impairments found during the run clinic. Information will be available to take home for reference when performing exercises.

Training Station

The training station will provide valuable information about all aspects of running. Experts in the field will be available to answer a wide variety of questions and give advice and recommendations that are individualized for runners of all experience levels. Information on topics such as speed training and cross training will be available.