

## Motion Analysis Center

### SPORTS ASSESSMENT PATIENT EDUCATION GUIDE

#### About the Brooks Motion Analysis Center (MAC)

The MAC uses state-of-the-art 3D motion capture technology to deliver customized recommendations to promote recovery for individuals post ACL reconstruction. Our program focuses on athletes returning to sport to reduce the risk of re-injury. Our analysis emphasizes symmetry of both lower limbs using measurements including joint motion (range of motion occurring during each task performed) and forces produced by each leg.

Our team consists of physical therapists, biomechanical engineers, and skilled support staff. However, it is important to remember that you are the most important member of the team. Please read the following information about your session and how the information will be used. You may ask questions at any time.



#### WHAT TO KNOW BEFORE YOUR VISIT

To ensure the setup process goes as smoothly as possible, it is important that all patients come dressed appropriately for their assessment, as described below.



- Short-length shorts, loose or thin enough to be able to be rolled up to expose the upper thigh
- Tank top or short sleeve shirt, loose enough to be rolled up to expose upper shoulders
- Well-fitting sneakers that expose the ankle
- Hair-bands if needed
- No lotion/body oil 24hrs before your appointment

**Have questions?** Email: [BrooksMAC@BrooksRehab.org](mailto:BrooksMAC@BrooksRehab.org) | P: (904) 345-8967 | F: (904) 345-8978

## DURING YOUR ASSESSMENT

A typical visit lasts approximately 2 hours and is led by a trained physical therapist. It begins with setup for motion capture (15-30 minutes), the motion assessment (30 minutes), and a clinical assessment (45-60 minutes) to assess flexibility, strength, and balance through hop tests and other proven metrics to evaluate your recovery progress.

Patient setup involves attaching small reflective marker balls to your skin with double sided tape to identify joints and specific landmarks on the body. The reflections are tracked by infrared cameras and help us learn how your joints move as you perform different tasks.

The motion assessment involves five repetitions of five functional tasks shown to correspond to your ability to perform in your sport. In-ground force plates measure the amount of force produced during jumping-landing tasks and squats to evaluate symmetry and detect impairments. Breaks will be allotted during tasks as needed.

- **Overhead squat;** to maximal depth with bar raised overhead
- **Drop vertical jump;** drop, jump, and land on both feet from a 12" box
- **Single leg land;** drop on to one foot and hold from a 8" box
- **Lateral step down;** perform an opposite leg heel touch from a 8" box
- **Single leg drop vertical jump;** drop on to one foot, jump, and land on the same foot from an 6" box



## YOUR REPORT

Data collected during your motion capture, along with your clinical assessment and medical history, will be reviewed by our team to provide a comprehensive interpretation of your movements that is shared with your referring healthcare provider.



This report includes appropriate corrective exercises to improve functional movement while minimizing risk of injury and maximizing performance.

## Our Location

3901 University Blvd S, Suite 101, Jacksonville, FL, 32216

