



CONTACT: [ipm@innovatecalgary.com](mailto:ipm@innovatecalgary.com) • 403.284.6400

## Foot Size, Shape and Function Assessment Device

TECH ID #: 921.1

### Background

Shoe purchase decisions generally start from a single number: shoe-size. This can be measured for a standing customer using devices like the Brannock. Optionally, these devices can also determine the at-rest width of the foot. Sophisticated customers such as runners and athletes may also consider other aspects to shoe performance such as motion control features and shoe last curvature. But these aspects are poorly assessed and the assessment is likely to vary from store to store resulting in shoes with adequate fit when stationary but poor fit when in motion.

Dr. Reed Ferber and his research team at the Running Injury Clinic and at the University of Calgary have developed a foot assessment device which accounts for gait biomechanics to allow selection of shoes with better fit and performance during activity. The device gives accurate and quantified measurements of the foot. These measurements include foot length, width, volume, curvature and flexibility. This information is then used to select the best fitting shoe for the customer.

### Areas of Application

- Accurate and informed shoe selection giving better shoe fit and performance during activity.
- Precision shoe fitting for runners and athletes, and also for injured or diabetic feet.
- Comprehensive training program for employees to select the best fitting shoe for any customer.

### Competitive Advantages

- Better fitting shoes during motion.
- A sophisticated but inexpensive device.
- Allows scientific gait considerations by sales staff.
- Readily customized to a particular brand line of shoes.
- Identifies when new shoes are needed due to training-induced changes to foot volume or flexibility.

### Stage of Development

Prototype devices have been built and tested in the Running Injury Clinic. Foot measurement data has been collected and the method of shoe selection has been determined.