

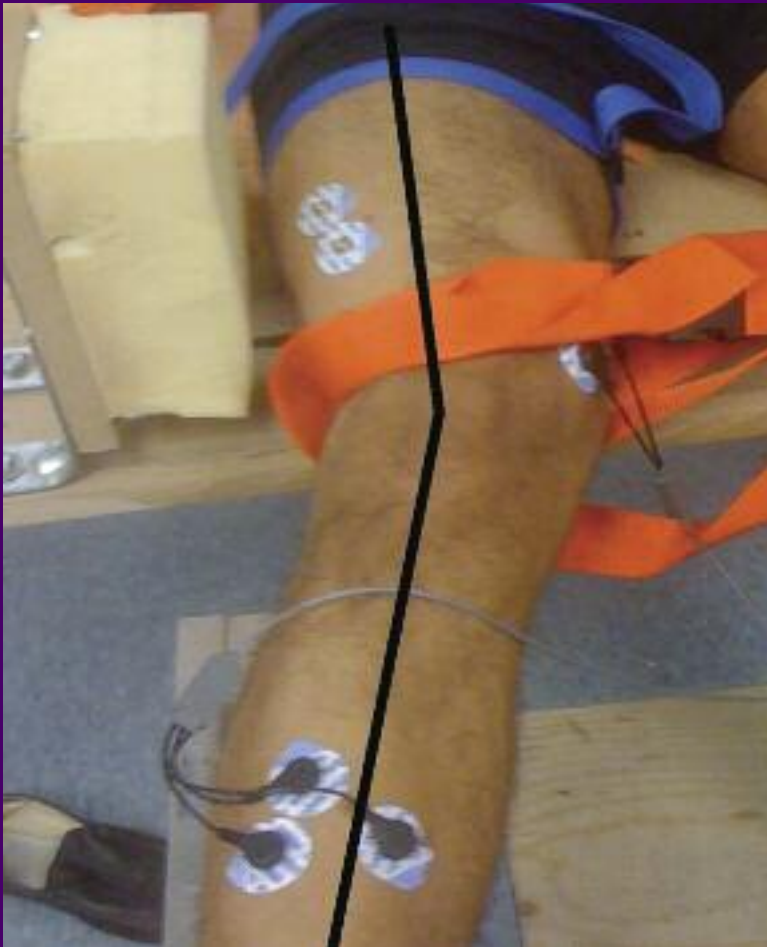


# Gait and Posture Laboratory – Biomechanics at York

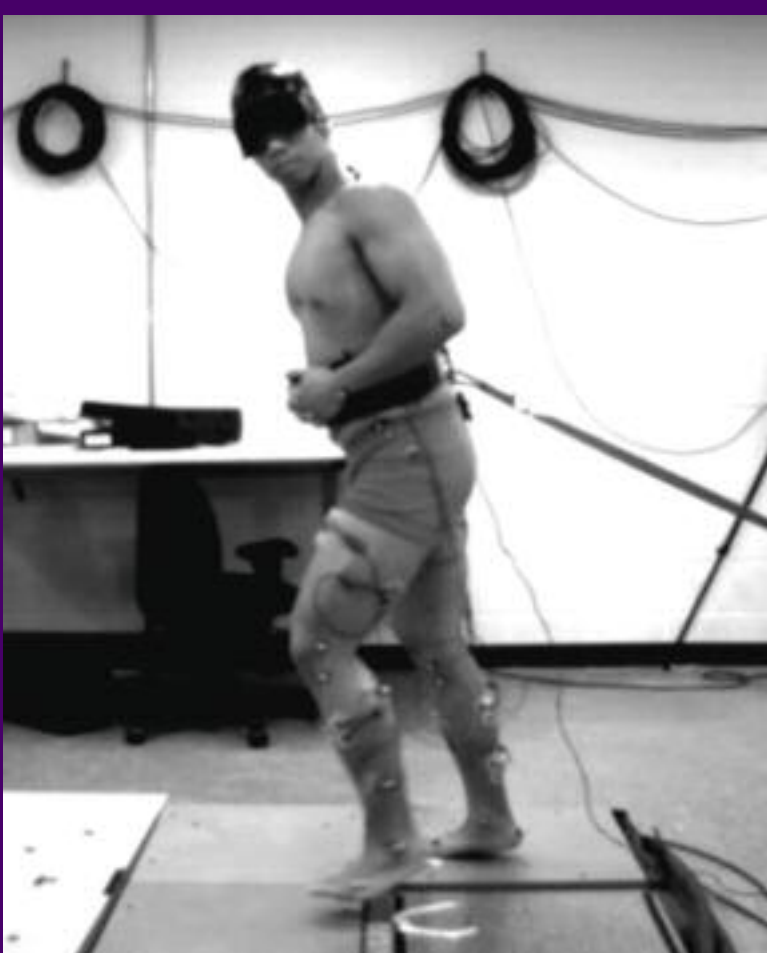
## School of Kinesiology and Health Science

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The Gait and Posture Laboratory researches the causes of falls in elderly and pathological populations, and develops interventions to reduce fall risk among these people. This research promises to reduce the healthcare burden – both personal and financial – while improving health-related quality of life.



We measure how advancing age and both injury and disease impact an individual's control of their balance when standing and walking. We gather data using advanced 3D motion capture, force plates in the floor, and by measuring changes in muscle activity.

The laboratory also uses out-of-laboratory measurements that allow us to obtain laboratory-quality measures of balance and gait while study participants go about their normal daily activities in the community over extended periods of time (e.g., hours, days, and, eventually, weeks).

By collaborating with colleagues in the Faculty of Science & Engineering, we have developed a wireless, wearable ambulatory monitoring system, also known as a “wireless body-area network” or WBAN. This technological leap allows us to gain new insights into how people actually maintain balance and avoid falling in their natural environment and community, where falls actually occur.

