

About The Motion Lab

The Motion Lab is one of only three clinical facilities of its kind in Western Canada. Using leading-edge technology, this lab is at the forefront of non-invasive diagnosis and assessment of complex gait problems in children.

The Motion Lab provides solutions for children with walking disabilities. The lab allows BC health professionals to collaborate through clinical research and education opportunities.

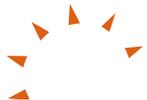
About Sunny Hill

Sunny Hill Health Centre for Children is a provincial facility offering specialized services to children with disabilities, their families and communities throughout British Columbia. Using a family-centred approach, Sunny Hill helps promote the healthy development of children and youth by supporting families and community service providers in their efforts. It is also a resource for educational services and information about disabilities. Services are delivered close to home in a child's community, or on site at Sunny Hill, located in Vancouver.

How To Contact Us

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BC Children's Hospital
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Toll free: 1-888-300-3088
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*Promoting Better Health for Children with Disabilities
through Clinical Services,
Education and Research*



Who Are We?

The Motion Lab is a unique resource for British Columbia. Since 1997 we've helped thousands of children find solutions to their walking-related disabilities. We've assessed and assisted children with cerebral palsy, spina bifida, as well as those who've had traumatic brain injuries or lost a limb. Our team of trained professionals includes:

- Orthopedic Surgeons
- Physiotherapists
- Kinesiologists
- Engineers

What Do We Do?

Using high-tech motion analysis equipment to record a child's walking patterns (gait), the Motion Lab helps to understand and resolve movement problems in children.

Our equipment can be used for:

- Whole/full body motion capture analysis
- Plantar/foot pressure analysis
- A combination of those two analyses

These data assist health professionals to determine the best treatment for each child, to measure the effectiveness of new interventions, and to make the best surgical decisions possible.



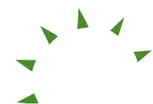
What Kind Of Equipment Do We Use?

Children can relax when they visit the Motion Lab, because our equipment is designed to provide painless assessments. We use the same kind of high-tech gear as is seen in the latest movies and video games.

Three types of motion analysis equipment are used in the Motion Lab:

- Twelve video cameras record a child's movements
- Eight electrode patches measure the electrical impulses of muscles in action
- Three plates in the floor measure the forces exerted on the ground and absorbed by the body while walking

We can simultaneously record from all three systems to provide a complete picture of how a child moves. This gives clinicians a better understanding of the child and how to provide the most effective treatment.



What Can You Expect At The Motion Lab?

On a typical visit, your child can expect to spend between 1½ and 2½ hours in the Motion Lab. This includes:

- A physical assessment with a physiotherapist. This assessment will take between 45 minutes and 1 hour
- 15–30 minutes spent walking in the motion capture area

After completing the assessment, the data are entered into computers for processing and analyzing by the team. The team will meet after you have left, to analyze the data and make surgical, orthotic or therapeutic recommendations.

Once our team completes the gait report, copies are sent to you, and to any other care providers that you decide should receive a copy.

