

A visit to the Motion Laboratory ...when you need a Motion Assessment



Children's Developmental Rehabilitation Programme (CDRP)
Located at the Ron Joyce Children's Health Centre
325 Wellington Street North
Hamilton, ON

Why do I need a motion assessment?

A motion assessment allows us to look closely at how your muscles and joints work when you are moving.

This information helps therapists, doctors and orthotists make decisions about exercises, braces, and surgery. It can also show us how your motion has changed over time, due to growth or treatment.

Most of the assessments are of walking but we can study other activities.

How do I get an appointment for a motion assessment?

Motion assessments are done at the Motion Laboratory at the Ron Joyce Children's Health Centre.

Your therapist or doctor at McMaster Children's Hospital can make a referral for an assessment.

We will call you with a time and date for your visit.

Where is the Motion Laboratory?

The Motion Laboratory is on the 2nd floor of the Ron Joyce Children's Health Centre, in the large gym.

When you arrive, check in at the main reception area. Then go up to the 2nd floor waiting room, where a Motion Laboratory Therapist will meet you.

What should I bring to the visit?

- Bring or wear shorts and a snug-fitting t-shirt for the testing. Most of the testing will be done in bare feet. However, some may be done with shoes and/or braces.
- Bring your orthoses and the mobility aids you usually use.
- Bring a snack and drink, if you wish.

Who will be at the assessment?

There will be a Kinesiologist and Physiotherapist at every assessment. Your own therapists are welcome to attend the visit.

Sometimes students or faculty from McMaster University may be present.

How is the motion assessment done?

A **full assessment** includes EMG (electromyography) and/or Kinematic and Kinetic measurements and video. This may take 1 to 2 hours. These tests do not hurt.

EMG measures the electrical activity of the muscles.

- Small electrodes on stickers are placed on the skin over the muscles being studied.
- A computer records information from the electrodes as the muscles are contracting.
- This gives us information about how your muscles are working.

Kinematic and Kinetic measurements allow us to study the angles and forces of arms, legs and joints during movement.

- Reflective markers are placed on different parts of your body with stickers.
- 8 cameras with infrared lights take pictures of the markers as you move.
- You will walk over a walkway on the floor that will measure muscle forces.
- A computer analyzes the information and makes graphs of the joint movements and forces.
- Another camera takes a video of your movements.
- Video only assessments can be done for a less in-depth analysis and a visual record of changes over time. A video only assessment may take ½ to 1 hour.
- A physical assessment of muscle strength, range of motion and spasticity can be done.
- These tests are similar to the measurements that your doctors and therapists do.

How will I get the results of the assessment?

- We will analyze the information from the motion assessment and write a report. This may take a while to complete. Let us know if you need the results for a specific appointment.
- We will share the results with the therapists and/or doctors who requested the motion assessment. Let us know if you would like us to send you a copy.
- If you would like an appointment to review the results, please tell your therapist.

If you have questions or need more information about your motion assessment, please call:

905-521-2100

- For Janet, call ext. 74478
- For Marilyn, call ext. 74477

To cancel or change an appointment, call: (905) 521-2100, ext. 44446.