

You must avoid virtual reality if you suffer:

- ❑ from epilepsy or migraines;
- ❑ from diseases related to your balance or your eyes;
- or
- ❑ if you take psychotropic medication.

Who is more likely to experience it?

- ☒ Children aged below 12 years old;
- ☒ Women and adults over 60 years old;
- ☒ People who are prone to motion sickness or who have a fragile physical health;
- ☒ People who go through a virtual reality immersion experience for the first time.

What precautions should be taken?

- ❑ Avoid drinking too much alcohol or taking drugs the day before your appointment;
- ❑ Take the time to eat and rest well before your appointment;
- ❑ Avoid immersion if you suffer from ocular problems (for example, blurred vision) or ear problems (for example, an ear infection);
- ❑ Move your head normally during the immersion.

You have questions?

Do not hesitate to ask your therapist or the research assistant whom you met during your participation for additional information.

You can also contact our team at:

Cyberpsychology Lab of UQO

C.P. 1250 succ Hull
283 Boul. A-Taché
Gatineau (Québec)
J8X 3X7

T : (819) 595-3900 x2531

or

visit the Cyberpsychology lab
of UQO's website:

<http://www.uqo.ca/cyberpsy>

CYBERSICKNESS

What should you
know?



**Document elaborated at the
intention of participants
implicated in research
projects on virtual reality**

Cyberpsychology Lab of UQO

Tel. : (819) 595-3900 x2531

© Laboratoire de Cyberpsychologie,
June 2015

To all virtual reality users:

As you know, the Cyberpsychology Lab of the Université du Québec en Outaouais (UQO) team is interested by virtual reality projects in treating anxiety disorders.

Your participation is crucial to our projects in order to develop efficient and safe programs and better fulfill the treatment needs of the community.

We have your security and health at heart, and this is why we want to inform you of the side effects that could be experienced following a virtual reality immersion: **cybersickness**.

Cybersickness is not a disease or a pathological state, but rather a normal physiological response in the context of a virtual immersion.

By taking the precautions that are presented in this document, you will greatly reduce the risks of feeling cybersickness and will make your virtual experience much more agreeable!



CYBERSICKNESS: What is it?

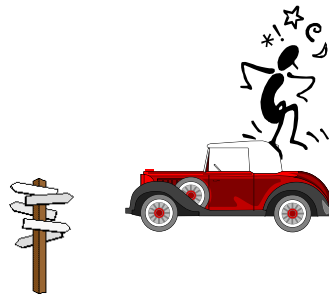
Cybersickness represent a form of motion sickness that occurs during or after a virtual immersion.

What are the causes?

It is believed that it originates from a conflict between three sensorial systems: the visual, vestibular (internal ear) and proprioceptive (motor perception and control in the human body).

The eyes perceive a movement, which can be delayed by a few milliseconds from what is perceived by the balance system, whereas the rest of the body almost does not move. This contradictory information can make you feel nausea or disorientation.

These sensations can be compared to reading in an automobile or seeing a train move beside you. Some individuals are more susceptible to feel cybersickness than others.



What are the side effects?

There are three categories of symptoms that can be felt during or after a virtual exposure:

- (1) **ocular problems** (eye strain, blurred vision, headaches) similar to watching the television at very short distance;
- (2) **disorientation** (vertigo, unsteadiness);
- (3) **nausea** (vomiting, dizziness).

In the vast majority of cases, cybersickness is very light, temporary and is not hazardous for your health, though it can create some discomfort.

These symptoms diminish by adjusting the tracker's sensibility (on the virtual headset) or by using high performance computers such those we use at the Lab.

