# Simulation Learning System with Virtual Reality (SLS with VR): VR Safety Tips and Warnings

Portions of this guide are adapted from the SimX Instruction Manual located on the SimX Administration Portal and from the Oculus website. Elsevier, RELX, and their affiliates are not responsible for the information taken from the SimX manual or the Oculus website.

 Before using VR hardware, consult the Oculus Health and Safety Warnings at www.oculus.com/legal/health-and-safety-warnings A.

Virtual reality can provide a great immersive experience, but in rare circumstances it can cause problems for some users, so keep the following in mind:

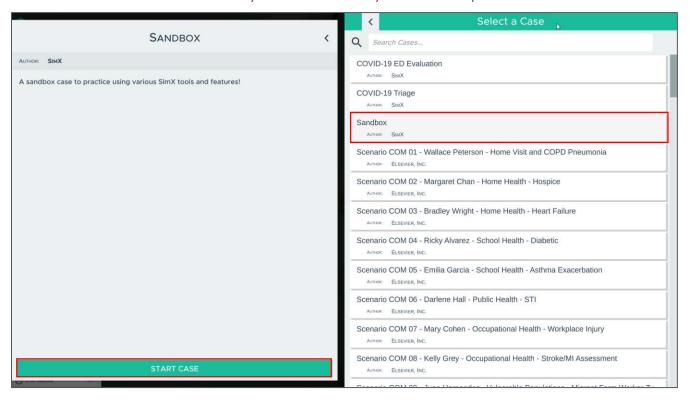
#### **Student Orientation**

 Have users/students review help guides provided in the SLS with VR course to learn about the tools.



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- We strongly suggest students participate in the Sandbox case for their first VR simulation experience, allowing them to explore the VR experience prior to participating in a full, facilitated simulation.
  - Simply start a Sim Group in the SimX Moderator (see Start or Join a Sim Group) and start the Sandbox case. You do not need to moderate/facilitate this tutorial case; consider it a sandbox/practice environment.
  - o **NOTE:** Instructors may find it useful to try this out to experience what the student will.



# Getting a Good Fit in the VR Headset

Refer to your manufacturer's guide on getting a good fit if not using the Oculus Quest 1 or 2.

- A nice, snug headset fit will minimize any movement of the headset, which can cause nausea.
  - Once all straps are secure, adjust the orientation of the headset, making sure the VR view is crisp and focused.
  - o Remember to adjust the strap on top if needed.
  - Adjust the lens spacing if needed.
  - See Using VR Hardware for Oculus resources on adjusting the headset fit.



## **User Symptoms**

For some people, use of VR can cause dizziness and nausea. Often these symptoms fade within 30 seconds of being in the VR world. For symptoms, try the following:

- Closing one's eyes for several seconds can clear up symptoms.
- Adjust the straps, the position of the headset, or the lens spacing. If the headset isn't directly aligned with your eyes, the scene will seem blurry.
- If you continue to experience symptoms, stop using your headset and consult a physician.

## **Physical Play Space**

- \*\*\* In VR, users will have no idea where cables are running, so routing cables to minimize
  the chance of getting snagged, pulled, or tripped on is of the utmost importance. The
  physical play space should be clear of any objects. \*\*\*
- To avoid collisions with walls or other obstacles, ensure that the play space is properly set up
  and that headsets are synchronized. Users should make sure to take immediate action when
  prompted by system alerts.
- Instruct users to be mindful of the Guardian system (the virtual boundary mesh projected in the Oculus) and to slow their movements when near it.
- Remind users not to attempt to lean on any virtual objects or place their controllers on virtual objects.
  - Always strap hand controllers to wrists and tighten lanyards (or use whatever additional protections your manufacturer provides if not using the Oculus system).
- Users can see each other's avatars in the VR environment and move anywhere withing the confines of the designated space, but sometimes users will be wider than their avatars, either due to natural differences in body habitus or body positioning during the scenario. It is best to give other users a wide berth in the VR environment and not move too quickly to avoid injury if collisions happen.
- \*\*\* VR simulation should always be externally supervised. \*\*\*
- See **Setting Up VR Hardware** for more information on play space set up.

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