VGH Simulation Centre

Equipment & Resources



The Vancouver General Hospital Simulation Centre (VGH SIM) is located in Blackmore Pavilion and supports a wide range of simulation education for health-care professionals and staff. The state-of-the-art centre provides a realistic, safe learning environment where learners can practice and develop skill sets to advance patient care. VGH SIM supports the learning and growth of health-care professionals within VGH, provincially, nationally and internationally.



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Rooms -

The centre consists of 12 rooms, which include a lecture theatre, BC's only simulation surgical cadaver lab, a computer and skills lab, a dedicated high-fidelity patient simulator room and 8 multipurpose breakout rooms.

Our occupancy permit allows a maximum of 140 people in the centre at once. The capacity in each room changes based on what is in the room (tables, stretches, carts) and how the room is being used (lecture style with no tables vs clinical simulation set up). Please make note of all items and their quantities required in your room requests and setups (including tables and chairs).

Lecture Theatre



The lecture theatre is our biggest space with a capacity of 34 (tables and chairs), 55 (chairs only), or 24 (simulation/skills). It has a full AV setup with presentation capabilities.

Note that the AV system is not capable of recording or broadcasting.

Please note the AV system in the Lecture Theatre is experiencing technical difficulties and many components of the system are down. Please contact the VGH SIM Team at vghsim@vch.ca for more information.

Breakout Rooms

Each breakout room comes equipped with a TV, HDMI connections, a simulated patient bed head, a hand hygiene sink, cleaning wipes, gloves, hand sanitizer, sharps container and a whiteboard on the inside of the door.



Δ

Breakout Room 1 (BOR-1)



BOR-1, one of our large breakout rooms has a capacity of 18 (no equipment) or 12 (simulation/skills).

Breakout Room 2 (BOR-2)



BOR-2 has a capacity of 8 for simulation/skills. It can also be used as an observation or control room with audio capabilities (input and output) between BOR-1 and/or BOR-3.

Breakout Room 3 (BOR-3)



BOR-3, our other large breakout room has a capacity of 30 (no equipment) or 15 (simulation/skills). BOR-3 also has live oxygen and suction at the simulated bed head.



Breakout Room 4 (BOR-4)



BOR-4 has a capacity of 8 for simulation/skills.

Breakout Room 5 (BOR-5)



BOR-5 has a capacity of 8 for simulation/skills. It can also be used as an observation or control room with audio capabilities (input and output) between BOR-4 and/or BOR-6.

Breakout Room 6 (BOR-6)



BOR-6 has a capacity of 8 for simulation/skills.



Breakout Room 7 (BOR-7)



BOR-7 has a capacity of 8 for simulation/skills. Harvey the Cardiopulmonary Patient Simulator is stored in this space (but must be requested in booking).

Breakout Room 8 (BOR-8)



BOR-8 has a capacity of 8 for simulation/skills.



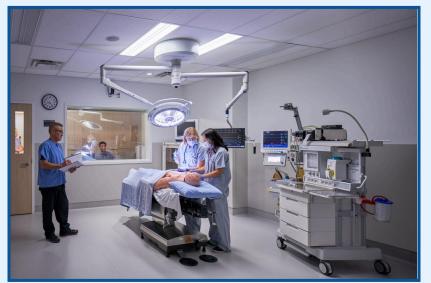
Computer Skills Lab



The Computer Skills Lab has a capacity of 24 with 16 computer stations. It also has a TV screen with HDMI and VGA inputs, a sharps container, gloves, cleaning wipes and a small whiteboard. The Fundamentals of Laparoscopic Surgery trainer is stored in this space (but must be requested in

booking). Food and drink are not permitted in the Computer Skills Lab.

Human Patient Simulator Room



The Human Patient Simulator (HPS) room has a capacity of 8 and is set up to resemble an operating room. There is live oxygen and suction available. This space includes a dedicated observation/control room with audio input/output functions and video camera access. The default setup for this space includes a high fidelity simulator, a simulated

lung and an anaesthetic machine. These items must still be included in the booking request as all equipment (with the exception of the anaesthetic machine) can be removed. The anaesthetic machine is stored in this space and cannot be removed. If, however, your booking does not require the anaesthetic machine, it can be wheeled to the corner/side of the room (please inform the VGH SIM Team if this is the case for your booking).



Wet Lab



The Wet Lab has a capacity of 30 with equipment, beds or tables. It has a full AV setup with presentation capabilities and a dedicated control room with camera access as well as audio input/output. It includes several live oxygen and suction stations. Food and drink are not permitted in the Wet Lab.

The Wet Lab also has capacity for specimen labs

(for a fee and must be arranged with VGH SIM staff in advance). In support of this, the space has 3 video cameras that can be connected to any of the screens around the room including an instructor station with adjustable camera and student monitors for instructor-led teaching sessions. The Wet Lab is additionally lead lined and available for x-ray use.

Note that the AV system is not capable of recording or broadcasting.



Manikins -

VGH SIM has a no cutting/incisions, no fluid use and no rescue breathing (i.e., no mouth-to-mouth breaths and pocket masks) policy for all of our manikins and task trainers. If your booking's learning objectives include any of these skills, contact the VGH SIM Team for recommendations.

Our website includes other specifics about our manikins and their usage including consumable parts, feature comparisons and info sheets.

Nursing Anne Simulator



The Nursing Anne manikin is a mid-fidelity simulator with capabilities ranging from basic assessment to advanced skills practice.

VGH SIM has 1 Nursing Anne available to book.



Nursing Anne has a system of internal reservoirs useful for practicing stoma care, central line and catheterization skills.

Nursing Anne comes with a bin of manikin-specific supplies including dressings and stoma attachments.

https://laerdal.com/ca/products/simulation-training/nursing/nursing-anne-simulator/ (Website) https://cdn.laerdal.com/downloads/f5203/nursing_anne_simulator_user_guide_en/Ll

https://cdn.laerdal.com/downloads/f5203/nursing anne simulator user guide en (User Manual)



Resusci Anne Simulator



The Resusci Anne manikin is a mid-fidelity simulator that is perfect for practicing anything from basic care and assessment to emergency care scenarios. VGH SIM has 3 Resusci Annes available to book.

https://laerdal.com/ca/products/simulation-training/emergency-care-trauma/resusci-annesimulator/ (Website) https://cdn.laerdal.com/downloads/f5865/resusci_anne_simulator - user_guide_link_a nd_paddle_version_ (User Manual)



SimMan ALS



The SimMan ALS is designed for practicing critical care skills, making it ideal for courses like Advanced Cardiac Life Support (ACLS).

VGH SIM has 3 SimMan ALS available to book.

https://laerdal.com/ca/products/simulation-training/emergency-care-trauma/simman-als/ (Website) https://cdn.laerdal.com/downloads/f3960/_simman_als_user_guide (User Manual)



SimMan Essential



The SimMan Essential is our most advanced simulator, with almost all of the functions of the previously described Laerdal manikins. Its major distinguishing characteristics are its difficult airway options.

VGH SIM has 1 SimMan Essential available to book.

https://laerdal.com/ca/products/simulation-training/emergency-care-trauma/simman-esse ntial/ (Website) https://cdn.laerdal.com/downloads/f3119/user_guide__simman_essential_english (User Manual)



MegaCode Kid



MegaCode Kid is a mid-fidelity pediatric simulator that can be used to practice a variety of pediatric emergency and assessment skills.

VGH SIM has 1 MegaCode Kid available to book.

https://laerdal.com/ca/products/simulation-training/emergency-care-trauma/megacode-ki d/ (Website) https://cdn.laerdal.com/downloads/f4170/MegaCode_Kid_ECG_Kid_Directions_for_Use. pdf (User Manual)



Apollo



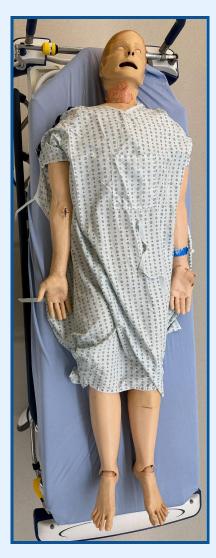
The CAE Apollo is a high fidelity manikin that includes a control laptop and the ability to project vital signs on a TV screen.

VGH SIM has 1 CAE Apollo available to book.

Note that our CAE Apollo simulator is old and may not have newer features available. It is has been phased out and replaced by the SimMan ALS and SimMan Essential.



Low Fidelity





VGH SIM has some older manikins whose technological components are no longer functional. As such, they can be used as low fidelity manikins.

VGH SIM has 3 low fidelity adult manikins, 1 low fidelity pediatric manikin and 1 low fidelity infant manikin available to book.





Task Trainers —

Our website includes other specifics about our task trainers and their usage including consumable parts and a quick task trainer guide.

Modular Skills Trainer



The Modular Skills Trainer is a task trainer designed for practice of 16 different clinical nursing skills.

VGH SIM has 6 Modular Skills Trainers available to book.

The Modular Skills Trainer comes with a binder of applicable VCH policies.

https://laerdal.com/ca/products/simulation-training/nursing/modular-skills-trainer/ (Website)

Multi-Venous IV Training Arm



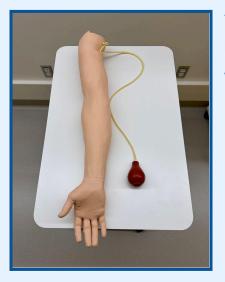
The Multi-Venous IV Training Arm is an independent arm for practicing intravenous injections.

VGH SIM has 3 Multi-Venous IV Training Arms available to book.

https://laerdal.com/products/skills-proficiency/venous-arterial-access/multi-venous-iv-train ing-arms/ (Website)



Arterial Arm Stick Kit



The Arterial Arm Stick Kit is an independent arm for practicing arterial punctures.

VGH SIM has 2 Arterial Arm Stick Kits available to book.

https://laerdal.com/products/skills-proficiency/venous-arterial-access/arterial-arm-stick-kit (Website)

Little Anne QCPR



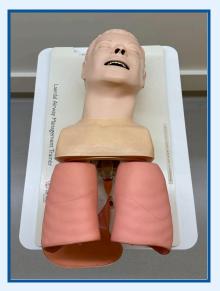
The Little Anne QCPR is a CPR trainer that allows the user to track the quality of the learner's CPR via bluetooth on an iPad/phone.

VGH SIM has 12 Little Annes (adult), 2 Little Juniors (pediatric), 7 Little Babies (infant) available to book.

https://laerdal.com/ca/products/simulation-training/resuscitation-training/little-family/ (Website)



Airway Management Trainer



The Airway Management Trainer provides a realistic anatomical model to practice airway management skills including bag valve ventilation, intubation and suctioning.

VGH SIM has 1 Airway Management Trainer available to book.

https://laerdal.com/ca/products/skills-proficiency/airway-management-trainers/laerdal-air way-management-trainer/ (Website)

Deluxe Difficult Airway Trainer



The Deluxe Difficult Airway Trainer is designed to practice management of difficult airways including the ability to inflate the tongue to simulate edema.

VGH SIM has 3 Deluxe Difficult Airway Trainers available to book.

https://laerdal.com/ca/products/skills-proficiency/airway-management-trainers/deluxe-diffi cult-airway-trainer/ (Website)



Chester Chest



Chester Chest is an anatomical model of a torso with a detachable arm that can be used for the practice of placement, preparation, insertion, care and removal of some vascular access sites & routes.

VGH SIM has 1 Chester Chest with Advanced Arm available to book.

Chester Chest comes with a binder of applicable VCH policies.

https://laerdal.com/ca/products/skills-proficiency/venous-arterial-access/chester-chest/ (Website)

ASL 5000



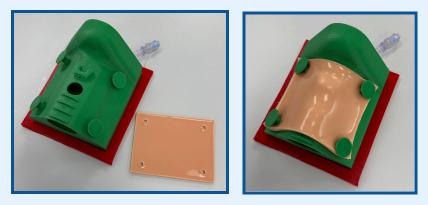
The ASL 5000 is a breathing simulator that allows for high-fidelity ventilation practice, designed to be used with almost any ventilator. At VGH SIM, the ASL 5000 can be used in combination with the SimMan Essential or one of our SimMan ALS.

VGH SIM has 1 ASL 5000 available to book.

https://laerdal.com/ca/products/tech/simulation-technology/ASL5000LungSolution/ (Website)



Cricothyrotomy Trainer



The Cricothyrotomy Trainer creates an opportunity for high-fidelity simulation of emergency airway skills. It can be filled with simulated blood and bleed with the puncture of 2 membranes (a thick layer of silicone then a thin layer of electrical tape)

and allows for palpation of anatomical landmarks. The luer lock connection allows for the use of a syringe to simulate the blood flowing.

VGH SIM has 4 Cricothyrotomy Trainers available to book.

https://yourdesignmedical.com/collections/airway/products/cricothyrotomy-trainer (Website)

Central Line Trainer Ultrasound Phantom (Simple & Difficult)





The Central Line Trainer Ultrasound Phantom is for practicing central line insertions. Both the simple and difficult versions of the trainer allow for ultrasound fidelity to

simulate. The tubes inside are filled with water for simulation. Stoppers are available to stop the movement of water if the trainer is placed at different angles.

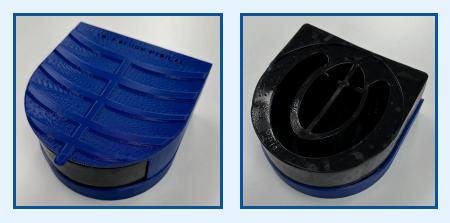
VGH SIM has 2 simple versions and 1 difficult version of the Central Line Trainer Ultrasound Phantoms available to book.

https://yourdesignmedical.com/collections/ultrasound-phantoms/products/copy-of-central -line-cvl-trainer-ultrasound-phantom-simulator-difficult-version (Website, Simple)

https://yourdesignmedical.com/collections/ultrasound-phantoms/products/central-line-trainer (Website, Difficult)



Pericardiocentesis Ultrasound Phantom



The Pericardiocentesis Ultrasound Phantom allows for practice of pericardiocentesis procedures with ultrasound compatibility. The internal cavity is filled with water to simulate pericardial fluid.

VGH SIM has 1 Pericardiocentesis Ultrasound Phantom available to book.

https://yourdesignmedical.com/collections/ultrasound-phantoms/products/adult-pericardi ocentesis-ultrasound-phantom (Website)

Chest Tube Thoracotomy Thoracostomy Trainer





The Chest Tube Thoracotomy Trainer is designed to practice thoracotomy and thoracostomy procedures.

Includes multiple layers to mimic the adult anatomy. Has standard adult rib placement with multiple practice sites.

VGH SIM has 1 Chest Tube Thoracostomy Thoracotomy Trainer available to book.

https://yourdesignmedical.com/products/chest-tube-thoracotomy-trainer?_pos=1&_sid=13 e827efc&_ss=r (Website)



Fundamentals of Laparoscopic Surgery (FLS) Trainer





The Fundamentals of Laparoscopic Surgery Trainer allows learners to practice their laparoscopic surgery skills.

VGH SIM has 1 Fundamentals of Laparoscopic Surgery Trainer available to book.

The trainer is stored and intended for use in the Computer Skills Lab.

Note that some accessories are missing.

https://fls-products.com/fls/products/50304/50304-fls-trainer-system-with-camera (Website)

IV Torso



The IV Torso is designed for adult intravenous practice with simulated veins and ability to use fluids.

VGH SIM has 3 IV Torsos available to book.

Note these trainers do not provide ultrasound fidelity.

https://laerdal.com/ca/products/skills-proficiency/venous-arterial-access/laerdal-iv-torso/ (Website)



Harvey the Cardiopulmonary Patient Simulator



Harvey is an adult-size manikin that realistically simulates cardiac diseases by varying blood pressure, pulses, heart sounds, murmurs and breath sounds.

VGH SIM has 1 Harvey the Cardiopulmonary Patient Simulator available to book. The simulator is stored and intended for use in BOR-7.

Note that our model is from 1996 and may not have some newer features available.

https://laerdal.com/ca/products/simulation-training/nursing/harvey-the-cardiopulmonary-p atient-simulator/ (Website)

GI Mentor



The Simbionix GI Mentor allows for realistic practice of endoscopic procedures.

VGH SIM has 1 GI Mentor available to book. The trainer is stored and intended for use in the Computer Skills Lab.

Note the GI Mentor Modules are no longer available.

https://www.okbmedical.com/gimentor.html (Website)



Tech Equipment ------

Please note that some of our equipment is donated, models of certain items may vary.

Clinical Devices

Zoll Defibrillator



VGH SIM has 6 Zoll defibrillators (varying models) available to book with pre-stocked crash carts.

Ultrasound



VGH SIM has 2 Sonosite Edge ultrasounds available to book (come with a small selection of transducers).



Glidescope



VGH SIM has 2 glidescopes available to book.

Anaesthetic Machine



The anaesthetic machine is for simulation purposes only. It is not connected to any live gases and is not for use with any real medications.

VGH SIM has 1 anaesthetic machine that cannot be removed from the HPS room but can be wheeled to the corner/side of the room if not needed.



Supporting Technology

Workstation on Wheels (WOW)



VGH SIM has 6 WOWs (varying models) available to book.

iPad



VGH SIM has 7 iPads available to book. iPads come preloaded with a variety of clinical simulation apps, contact the VGH SIM Team at <u>vghsim@vch.ca</u> for more information.



Monitor by Laerdal



The Monitor by Laerdal is a simulated patient monitor system that can be used to control and project vital signs using iPads. This can help add fidelity to scenarios with low fidelity manikins. TruMonitor is the app used to bridge the two iPads (one acts as the instructor control device and the other as a patient monitor). More

information on how to use the Tru Monitor app can be found here.

VGH SIM has 2 Monitor by Laerdal sets available to book.

https://laerdal.com/ca/products/simulation-training/manage-assess-debrief/monitor-by-lae rdal/ (Website)

SimPad, Laptop and Tablet



Laerdal offers two types of controller devices for their manikins. Both controller devices allow the user to maneuver through Manual Mode (for on-the-fly simulations) and Automatic Mode (for pre-programmed simulations) with the ability to change vitals,

monitor the quality of CPR and take notes to use during debrief. The first option is the Laerdal-specific device called the SimPad Plus. These are handheld devices that are intuitive to use and are best suited for new users or less complex scenarios. The second option is a laptop that offers a larger screen with some more detailed options for on-the-fly simulations. This is best suited for experienced users or more complex scenarios. Laptops may double as patient monitors as required. Both controller devices connect to tablets which are used as patient monitors to display vital signs.



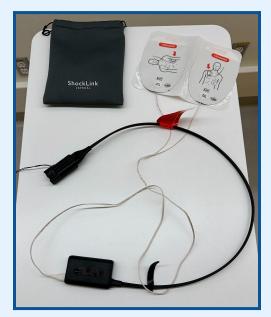
VGH SIM has 5 SimPads Plus, 3 laptops, and 7 Tablets available. Depending on learning objectives and resource availability, the VGH SIM Team will set up for your session with either a SimPad Plus or a laptop if you have booked a compatible manikin. Please let us know if you have a specific preference and we will try our best to accommodate your request.



VGH SIM has custom-made patient monitor cases for our tablets to increase scenario fidelity. For more information, please contact us at vghsim@vch.ca.

https://laerdal.com/ca/products/simulation-training/manage-assess-debrief/simpad-plus/ (Website) https://laerdal.com/ca/item/400-10201 (Website)

ShockLink



ShockLink allows users to use live defibrillators on Laerdal manikins. The device is connected to a defibrillator and a set of specially designed pads. The ShockLink device absorbs the live energy from the defibrillator while communicating the necessary information to the instructor's and learners' devices.

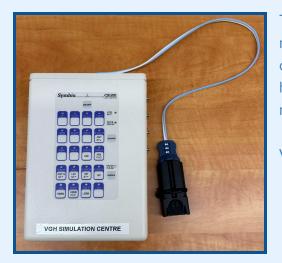
VGH SIM has 8 ShockLink devices that come booked with compatible manikins.

https://laerdal.com/ca/products/skills-proficiency/defibrillation-cardiology/shocklink/ (Website)

https://cdn.laerdal.com/downloads/f4086/user_guide_for_shocklink.pdf (User Manual)



Rhythm Generator



The rhythm generator allows you to simulate rhythms on a defibrillator without the use of a connected manikin/ShockLink device. This can be helpful for simulations that do not require high manikin fidelity.

VGH SIM has 1 rhythm generator available to book.

https://laerdal.com/ca/products/skills-proficiency/defibrillation-cardiology/symbio-rhythmsimulators/ (Website)

VitalsBridge

VitalsBridge is designed to increase the fidelity of simulations by allowing the user to project simulated vital signs on real clinical monitors.

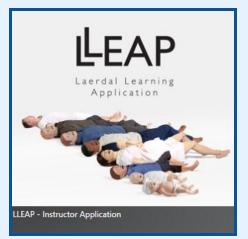
VGH SIM has 1 VitalsBridge device available for VGH Sim-assisted in-situ simulations only.

https://laerdal.com/ca/products/skills-proficiency/defibrillation-cardiology/vitalsbridge/ (Website)

http://www.vitalsbridge.com/downloads/VitalsBridge_4_User_Manual.pdf (User Manual)



LLEAP & SimDesigner



LLEAP is the Laerdal software that allows users to control their manikins via a SimPad or laptop and have the vitals displayed on a tablet. This can be done on-the-fly or scenarios can be designed ahead of time. SimDesigner is the software for programming premade scenarios.

 Phase 1

 INITIAL STATE

 Sinus
 HR
 RR

 M
 80
 12

 BP
 Sp02
 Tblood

 120/80
 98
 37.2

VGH SIM is able to pre-program scenarios for clients so that scenarios are ready to go on the day. Please email us with sufficient notice at <u>vghsim@vch.ca</u> and include your scenario outline, learning objectives and triggering events to move between phases. Alternatively, SimDesigner is a free software that can be downloaded. Clients can program their own scenarios and bring them in on a USB stick to be transferred to our system ahead of your booking.

https://laerdal.com/ca/products/simulation-training/manage-assess-debrief/lleap/ (Website)

https://laerdal.com/ca/products/simulation-training/manage-assess-debrief/simdesigner/ (Website)



Additional Resources ---

Please note that as some of our equipment is donated, models of certain items may vary.

Crash Cart



VGH SIM has 4 blue crash carts (come with a defibrillator), 1 dark blue and 1 red crash cart (come with a defibrillator), 1 pediatric crash cart (does not come with a defibrillator), and 2 empty crash/medicine carts (do not come with a defibrillator).

Sutures & Suturing Material

The sutures and suturing material at VGH SIM are mostly acquired through donation. Clients are welcome to use any we have in stock, however we cannot guarantee that certain items or amounts will be available. If your event is occurring at the Centre, the VGH SIM Team can order sutures and have them ready for the day of your booking (given there is sufficient notice). The cost of these would be sent to you via an invoice after your booking.

For more detailed pricing information, please see the Consumable Parts document on our website.



IV Pole



VGH SIM has 3 IV poles with pumps available to book. For IV poles without pumps, no booking is necessary - please outline these in your event's setup details.

Intubation Kit



Intubation kits are composed of laryngoscopes, endotracheal tubes, stylets, bougies, ETT ties, non-rebreather masks, nasal prongs, NPAs, LMAs, 10mL syringe and manikin airway lubricant.

VGH SIM has 4 intubation kits available to book, and they each come with a bag valve mask set with OPAs.



Stretcher & Massage Table

VGH SIM has 6 stretchers and 3 massage tables available to book. Please specify in your setup details if you need any additional equipment such as linen, pillows or CPR boards.

Autopsy Table

VGH SIM has 8 autopsy tables available for use. Autopsy tables are not booked directly, but are used for specimen bookings in the Wet Lab. If there is a specific arrangement of autopsy tables required for your event, please specify this in your setup details.

Laparoscopic Tower

VGH SIM has 5 laparoscopic towers available to use with gases. Please specify in your Wet Lab booking if you will be needing laparoscopic towers. While we recommend that you bring your own, VGH SIM has a small amount of single-use laparoscopic instruments. Clients will be charged for use of consumable equipment.

Surgical Instruments

VGH Sim has an assortment of donated surgical instruments. If you would like to tour the Centre to see what is available, please email us at <u>vghsim@vch.ca</u>.

Clinical Supplies Room



Room 245 (next to the staff office) is set up as a clinical supplies room. Almost everything available is old or expired equipment (e.g. needles, IV fluid bags, catheters) that has been donated by departments around the hospital. Everyone is welcome to use the supplies found in the clinical supplies room - please keep us in mind if you have any old or expired equipment you think we could use!

