



LIFECAST
· BODY SIMULATION ·

**THE WORLD'S MOST
REALISTIC TEACHING TOOLS**





Elstree Film Studios

Founded in 2017, Lifecast Body Simulation has developed a range of highly accurate and lifelike medical manikins which are transforming the way medical simulation and education are delivered and absorbed.

Designed and produced at the esteemed Elstree Film Studios in London, famed for being the birthplace of the original Star Wars film, and in Sarasota, Florida, each manikin showcases an unmatched degree of realism and exceptional quality.

Our Creative Director John Schoonraad, whose movie credits include *Gladiator* & *Saving Private Ryan*, leads a team of special effects artists, prosthetic experts and 3D scanning techs in creating manikins that ‘break the mould’ by invoking levels of emotional responses and student engagement never before seen.

Today, Dave Halliwell and Rob Clark, Co-Founders of Lifecast Body Simulation Ltd. and former Heads of Education in the Pre-Hospital Emergency Care arena, address bias in Medical Education and Simulation and today produce manikins from premature babies through to se-nior adults in a range of ethnicities that reflect the real world.

In August 2023, Lifecast Body Simulation Ltd. joined the 3B Scientific Group of Companies. Dave Halliwell, co-founder and director of Lifecast Body Simulation, commented about the acquisition: “With 3B Scientific’s expertise and cutting-edge technologies, we are taking our product pipeline to the next level, ensuring we bring the best solutions to the market. By joining forces with 3B Scientific we are not only expanding our distribution reach globally but also gaining access to a wealth of knowledge and resources. Together, we aim to revolutionize the industry and make a lasting impact on the way healthcare professionals are trained.”

Lifecast Body Simulation Ltd. continues in its’ mission to enable educators and their students to make memories, protect learners and ultimately, to improve the standard of care given to patients.



Vivien Bridson

About Vivien

Picture Vivien Bridson, a talented personality renowned for her roles in Star Wars VIII The Last Jedi and Beauty and the Beast. Beyond the silver screen, she's a dancer, psychologist, and a model for Vivienne Westwood.

Our elderly female manikin is more than just a training tool; it's a living, breathing representation of Vivien herself. Crafted with meticulous attention to detail, this exceptional manikin is the result of a 3D scan/mould of Vivien at 82 years old.

'Lifecasting' of Vivien took place in the traditional way at Elstree Studios with alginate and plaster and over the course of an hour, our team moulded her head and body.

We now have hundreds of 'Vivien's' around the world, being used for education in areas such as manual handling, bereavement and falls awareness.

Clinical Area Applications

- **Resuscitation**
- **Nursing Care**
- **Palliative Care & Bereavement**
- **Oncology**
- **Disability care**
- **Pre-hospital Care**
- **Paramedic Training**
- and more ...

LIFECAST NEWBORN

Nothing stirs the emotions like the look of a newborn baby and training healthcare professionals to respond effectively to babies of varying gestational age, requiring urgent care, remains a significant challenge.

Lifecast has worked with leading experts in neonatology to create the widest and most realistic range of pre-term and term babies available today.

With features that include; anatomically detailed airways offering stepwise airway management up to endotracheal intubation, mechanical ventilation, UVC placement and intraosseous access. The Lifecast Newborn range offers an unrivalled opportunity to help caregivers prepare for these most vulnerable and challenging of patients.



LIFECAST NEWBORN

The Lifecast Newborn range:

- Miscarriage Education Manikins: 8 weeks & 18 weeks gestation
- Micro-Premie Baby: 22-23 weeks gestation, 500grams
- Pre-Term Baby: 28-29 weeks gestation, 980grams
- Term Baby: 36+ week gestation, 2.4kg

Our team is able to add hand punched hair and varying paint effects to reflect differing levels of wellness to enhance the realism even further.



LIFECAST INFANT & CHILD

The Infant & Child range has been created to reflect the many and varied challenges children of different ages represent, with each being the correct average height and weight for their respective ages.

The combination of a normal weight and a natural 'floppiness' contributes to the realism experienced when handling each child, providing a more accurate depiction of the real-life challenges encountered in many emergency procedures.

The Lifecast Chest Trauma Toddler adds a new dimension in chest trauma related resuscitation scenarios, enabling fluid and 'bubbling' to be expelled from the mouth during the management of the child's airway. The manikin allows for simulated blood and foam to be added into the lungs – from a rescuers point of view the manikin accurately represents bleeding from the trachea with pulmonary oedema and increased airway pressure.

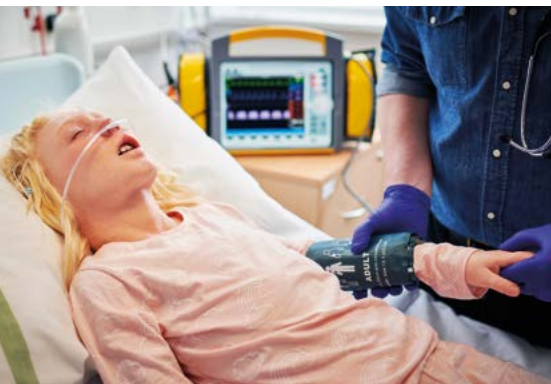
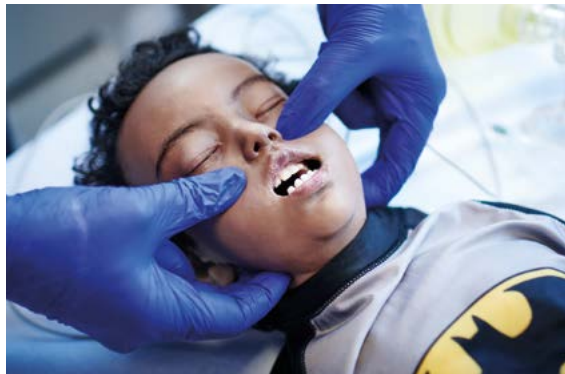


LIFECAST INFANT & CHILD

The Lifecast Infant & Child range:

- Infant: 3-4 months old, 6kg
- Toddler: 3 years old, 14kg
- Toddler Chest Trauma: 3 years old, 14kg
- Toddler Torso: 3 year old, 14kg
- Child: 8 years old, 24kg

Our team is able to add hand punched hair and varying paint effects to reflect differing levels of wellness to enhance the realism even further.



LIFECAST DOWN SYNDROME CHILD

Embrace Inclusivity with Our Down Syndrome Manikin

Introducing the world's first child manikin with Down syndrome by Lifecast Body Simulation. Developed in collaboration with the University of Greenwich and endorsed by the Down Syndrome Association, is a lifelike representation crafted from a meticulous 3D body scan of a seven-year-old girl named Gwen, who has Down syndrome. Through the utilization of Gwen's 3D scan, Lifecast Body Simulation has brought to life the Down syndrome manikin, also named Gwen.

Down syndrome (also called Trisomy 21) is a genetic disorder caused when abnormal cell division results in extra genetic material from chromosome 21. While varied amongst patients, a few common physical traits of some children who have Down syndrome are low muscle tone, a difficult airway for intubation, smaller stature, gapping in the toes, almond-shaped eyes, a single deep crease across the center of the palm, smaller hands and feet – all of which are accurately represented in the Gwen training manikin.

Gwen and her family are truly supporting such a worthy cause in creating awareness of Down syndrome and giving healthcare providers an accurate means of training while continuing to support diversity and inclusion in simulation-based education and training.

"Gwen is the world's first truly inclusive manikin. Our goal is to make manikins that look like real people. We worked with the University of Greenwich in the UK to create this manikin lifecast and 3D scan of Gwen, a 7 year-old girl who has Down Syndrome who lives in the UK with her dad, mum and brother." says David Halliwell, Founding Director of Lifecast Body Simulation Ltd.



LIFECAST DOWN SYNDROME CHILD

Key features:

- Difficult airway (smaller mouth opening)
- Single Transverse Palmar Crease
- Gapping in toes
- Low muscle tone
- Smaller stature
- Almond-shaped eyes
- Smaller hands and feet
- Intraosseous access
- CPR capable chest



LIFECAST ADULT MALE & ADULT FEMALE

Our Adult range utilizes advanced techniques to replicate the complexities of the human body, including lifelike details such as replicated veins and underlying structure.

Paired with the iSimulate simulation monitor, the Lifecast Adult range facilitates the creation of realistic in-situ scenarios.

The Lifecast Adult range:

- **Adult Male: Mid 40s, 37kg**
- **Adult Female: Late 20s / early 30s, 30kg**

Available in diverse ethnicities with specific customization options.



LIFECAST TEENAGER

Where medical simulation meets Youth

Introducing Kelsey, the latest addition to Lifecast Body Simulation's product line, a lifelike adolescent manikin. Available as a dark-skinned female manikin, Teenager Kelsey stands as a representation of the average height for a female teenager, 170cm.

The Lifecast Teenager Range:

- Internal airway for ET/NP/OP tube insertion
- CPR cable chest
- Designed to facilitate 50/50 duty cycle during chest compression
- Partial urinary catheter insertion
- Intraosseous access



LIFECAST ELDERLY ADULTS

As you will have read on the introduction pages, we have real life stories behind our elderly manikins. It's not just a manikin; it's a bridge between the real and the simulated, where the real life stories becomes a vital part of the learning experience. Welcome to a new era in medical simulation, where Lifecast Body Simulation brings reality to the forefront of training.

A realistic elderly manikin serves as a valuable tool for healthcare professionals, enabling them to:

- Enhance existing protocols to navigate the diverse challenges posed by geriatric patients.
- Attain expertise in the skills essential for providing optimal care, ultimately contributing to enhanced patient outcomes.
- Cultivate emotional intelligence through interactions with lifelike manikins, a crucial aspect in delivering compassionate, effective, and high-quality healthcare to the elderly populations.



LIFECAST ELDERLY ADULTS

We have created skin textures that include age spots and other natural elderly skin appearance that help stimulate natural responses during simulated scenario based training.

The Lifecast Elderly Adult Range:

- Adult Elderly Male: Early 80s Age, 30kg
- Adult Elderly Female: Early 80s Age, 30kg

Available in diverse ethnicities with specific customization options.



LIFECAST ONCOLOGY MANIKIN

Developed in conjunction with the folks at Oncomedical in Switzerland, the Lifecast Oncology Manikin represents a major step forward in teaching drug delivery and blood sampling in Oncology patients.

This unique manikin enables up to 4 port catheters and/or PIC lines to be built into the manikin construction, allowing for simulated medication and blood to flow through the manikin body. Port catheter insertion site scars are also visible.

The extreme high levels of realism possessed by all Lifecast Manikins provides unrivalled student engagement while learning how to safely perform port catheter drug delivery and sampling.

Wanda Scheiwiller & Christian Rossner from Oncomedical with their new Lifecast Oncology Manikin



LIFECAST ADULT TORSO

The adult manikin torso is a variation that focuses on the upper body, deviating from the representation of a full-body adult male manikin.

Combining a new advanced polymer chest with the detailed airway, the Lifecast Adult Torso offers advanced functionality and anatomical accuracy in CPR and airway management training. Our new polymer chest provides unrivalled chest compression feel including natural recoil times indicative of real people. The sealed lung system allows for realistic manual and mechanical ventilation.

The Lifecast Adult Torso synergizes effectively with the iSimulate simulation monitor, enabling the creation of lifelike and practical scenarios for in-situ scenarios.





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Every effort is made to replicate the manikins; however, these are bespoke items, and each one produced may differ from those shown here.

