LIFECAST
·BODY SIMULATION·

3B Scientific

THE WORLD'S MOST REALISTIC TEACHING TOOLS





www.lifecastbodysim.com

Introducing a step change in realism
for the medical training industry,
Lifecast Body Simulation
has developed a range of highly accurate
and lifelike medical manikins which
are transforming the way that
medical simulation and education are
delivered and absorbed.

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3B Scientific

Elstree Film Studios

Sarasota Florida

In August 2023, Lifecast Body Simulation Ltd. announced that it joined the 3B Scientific Group of Companies. Dave Halliwell, co-founder and director of Lifecast, 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 revolutionise the industry and make a lasting impact on the way healthcare professionals are trained."

Founded in 2017, Lifecast 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 renowned Elstree Film Studios in London, home of the George Lucas Studio, where the original Star Wars film was created, and in Sarasota, Florida, every manikin demonstrates an unparalleled level of realism and the very highest 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 senior adults in a range of ethnicities that reflect the real world.

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.

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Vivien Bridson

About Vivien

Our 82 year old lady manikin is a great example of our art and a copy of the amazing Vivien Bridson, an actor (starring in Star Wars VIII The Last Jedi), dancer and trained Psychologist, who lives in London.

'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 'Viviens' around the world, being used for education in areas such as Manual Handling, Bereavement, Falls Awareness, as well as the more traditional Advanced Life support.

Clinical Area Applications

When we started our journey, based on most of our backgrounds, we focussed primarily on Advanced Life Support environments and while this remains a strong part of our business, we have been amazed to see the growth in other areas. Examples as follows:

- ALS / Resuscitation
- Nursing Care – Elderly Patients
- Palliative Care & Bereavement
- Oncology
- Water Rescue

Vivien

Pete

Water Rescue

LIFECAST BABIES

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 accurate airways offering stepwise airway management up to Endo-Tracheal Intubation and Mechanical Ventilation, UVC placement with flashback and Intraosseus access, Lifecast Babies offer an unrivalled opportunity to help caregivers prepare for these most vulnerable and challenging of patients.

Well' and 'Sick' looking' Pre-Term Baby

Baby range

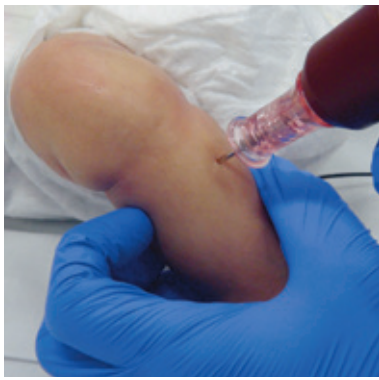
LIFECAST BABIES

The Lifecast Baby range:

- Miscarriage Education Manikins, 8 week & 18 week gestation
- Micro-Preemie Baby: 22-23 weeks gestation, 24cm, 500grams
- Pre-Term Baby: 28-29 week gestation, 36cm, 980grams
- Term Baby: 36+ week gestation, 38-40cm, 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.

Please refer to the Lifecast Manikin Features Chart for details of standard and optional features.



Our Lifecast ALS Children Manikin 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' creates amazing realism when handling each child, with this better reflecting the real life challenges associated with many emergency procedures such as choking.

The Lifecast Water Rescue Toddler adds a new dimension in drowning related resuscitation scenarios, enabling fluid and 'bubbling' to be expelled from the mouth during the management of the child's airway. Adding colour to the water in the lung and layering bruising to the Toddler's skin also enables very challenging chest trauma related scenarios to be performed.

LIFECAST TODDLER,TODDLER TORSO & CHILD

As with all Lifecast manikins, 'true to life' ALS Airways come as standard with each Child and options include a range of ethnicities and Intraosseus access.

The Lifecast Range of Children:

- Infant: 3-4 month old, 61cm, 6Kg
- Toddler: 3 year old, 80cm, 14Kg
- Water Rescue Toddler: 3 year old, 80cm, 14Kg
- Toddler Torso: 3 year old
- Child: 8 years old, 132cm, 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.

Please refer to the Lifecast Manikin Features Chart for details of standard and optional features.










Lifecast Body Simulation, a leader in realistic training manikins, announces the release of the world's first Child who has Down Syndrome training manikin. This realistic manikin was formed from a real-life 3D body scan of a seven (7) year old girl who has Down syndrome named Gwen and will be available to healthcare education facilities around the world to facilitate speciality and inclusive training in managing Down syndrome.

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 was created by Lifecast Body Simulation and the University of Greenwich in London who also received support from the Down Syndrome Association. 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.

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LIFECAST CHILD WHO HAS DOWN SYNDROME

Lifecast child who has Down Syndrome - Key features:

- Difficult intubation (smaller mouth opening)
- Single Transverse Palmar Crease
- Gapping in toes
- Low muscle tone
- Smaller stature
- Almond-shaped eyes
- Smaller hands and feet
- Intraosseous access
- Premium padded carry bag with wheels

In a world where approximately 16% of the global population is comprised of teenagers, healthcare providers face a growing need to excel in adolescent healthcare. Meet Kelsey, the latest addition to Lifecast Body Simulation's product lineup – a lifelike adolescent manikin made in the UK.

Kelsey's exceptional precision stems from the meticulous scanning and sculpting of real-life teenagers, capturing intricate details like veins, underlying structures, hair, and precise anatomical features of the mouth and airway.

This dark-skinned female manikin, standing at an average height of 170cm, is a representation of the typical female teenager, addressing a crucial gap in medical training and elevating the care quality for this age group.

FEMALE AFRO-CARIBBEAN TEENAGER

Resuscitation and Life Support: Practitioners can practice pediatric and adolescent CPR, defibrillation, and advanced life support techniques, enhancing their capabilities in critical situations.

Adolescent Medical Procedures: Kelsey can simulate specialized medical procedures tailored to adolescents, including intravenous cannula placement and intraosseous access. Healthcare providers can hone their skills for this age group.

Psychological and Behavioral Health: Mental health professionals can engage in training scenarios where Kelsey portrays adolescent mental health issues, allowing for the practice of counseling, assessment, and intervention strategies.









Created from real people using the 'life-casting' and 3D scanning processes developed at our Elstree Studios base, Lifecast Adults are highly realistic and reflect the artistry inherent to our manufacturing teams in the UK and US.

Our Adults feature lifelike details including the replication of veins and underlying structures, hair and precise anatomical airways enabling ALS airway management.

Available in a wide range of ethnicities and created with usable weight and average adult heights, Lifecast Adults encourage more natural handling, bringing a new level of realism to medical training and demonstrate our belief in building simulation training tools that create emotional attachment and engagement.

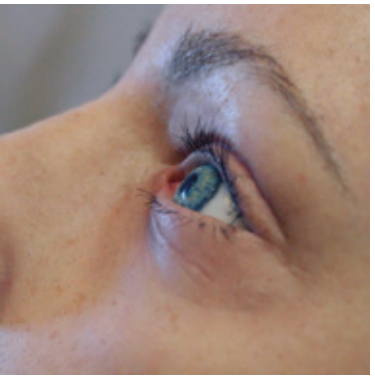
LIFECAST ADULT MALE, MALE TORSO & FEMALE

As none of our manikins are 'tethered' to any electrical power requirements, they are also ideal for In-Situ simulation sessions which in themselves, provide an effective and added realism extension to lab based training.

The Lifecast Adult Range:

- Adult Male: Mid 40s Age, 37Kg
- Adult Female: Late 20s / early 30s: 30Kg

Please refer to the Lifecast Manikin Features Chart for details of standard and optional features.










LIFECAST ELDERLY ADULTS

As you will have read on the introduction pages, we have amazing real life stories behind our Adult Manikins and our Vivien & Pete Elderly Adult Manikins are fantastic examples of this endeavour to create emotional engagement in Medical Education.

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

The ability to partially insert a urinary catheter to 'visually' simulate a catheterised patient and the option of a Bluetooth Speaker, all adds to the effect. Bespoke skin conditions and wounds are also available on request.

LIFECAST ELDERLY ADULTS

Many customers also utilise physiological monitoring simulators (e.g. iSimulate) and moulage (e.g. MDTs Simology range) to add further layers of reality.

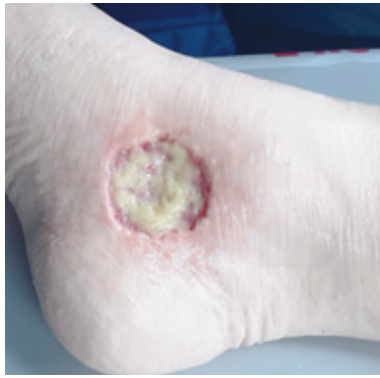
The Lifecast Elderly Adult Range:

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

Please refer to the Lifecast Manikin Features Chart for details of standard and optional features.







LIFECAST ONCOLOGY MANIKIN

Developed in conjunction with the folks at Oncomedical in Switzerland and the support of our distribution partners, Life Support Distribution, the Lifecast Oncology Manikin represents a major step forward in teaching drug delivery and blood sampling in Oncology patients.

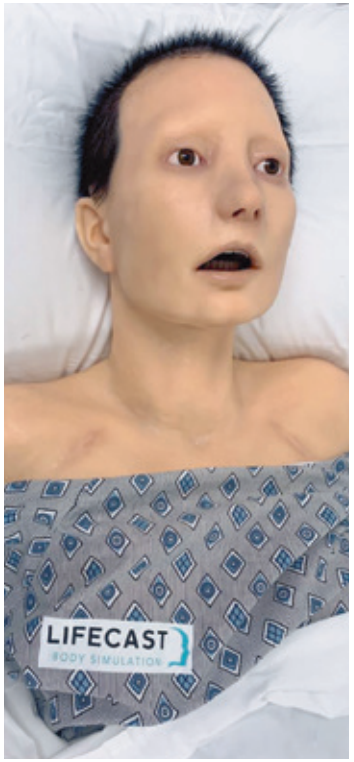
This unique manikin enables up to 4 port catheters and/or PIC lines to be built into the manikin construction, allowing for simulated medication and blood to flow through the manikin body. Port catheter insertion site scars are also visible.

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.

The ability to partially insert a urinary catheter and the option of a Bluetooth Speaker, all adds to the effect.

Please refer to the Lifecast Manikin Features Chart for details of standard and optional features.

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



LIFECAST ADVANCED CPR/ AIRWAY MANAGEMENT ADULT TORSO

Combining a new advanced polymer chest with our ultimate reality airway, the new 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 and enables effective use of the new breed of Ventilation Feedback Devices (including the EOlifeX from Archeon Medical)

The Lifecast Adult Torso also works really well with the iSimulate physiological monitoring simulator to create highly realistic and practical lab based or in-situ scenarios.

Please refer to the Lifecast Manikin Features Chart for details of standard and optional features.

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