

DR.VR JUNIOR

*Reducing pain and anxiety
in Paediatrics*



**“DR.VR® has fundamentally
changed the way our team is
distracting patients during
procedures – and it’s working!”**

*Dr. Roisin Begley, Paediatric
Emergency Medicine Consultant*

Rescape®

www.rescape.health

"91% [of patients] reported lower anxiety levels after using the headset."

Potter, T., Curran, Jr, 2021 Using DR.VR® in a Burns Unit¹



MADE FOR CHILDREN

Children often find a hospital visit to be a stressful and painful experience. Research has shown the use of VR can significantly reduce anxiety and pain in paediatric patients⁵. This enables quicker⁷, easier and less stressful clinical procedures, in some cases removing the need for sedation, saving time and money whilst improving the child's well-being.

WHAT IS IMMERSION - WHY DOES IT WORK?

Virtual Reality (VR) creates a simulated world which immerses the viewer. VR Distraction Therapy simply describes the advantages of this immersive quality. The work of Hoffman⁸, and others, clearly shows that something else significant, is happening within the brain when in VR. The overwhelming amount of information in the brain increases the cognitive load to such an extent that it reduces the brain's ability to process pain and anxiety⁵. Our job, therefore, becomes to create immersive environments that 'convince' the brain that simulated worlds are real.

Children are likely to be responsive to digital technologies⁵ and by embracing the immersive nature of VR, it follows that engagement leads to increased effectiveness.

BUILT ON EVIDENCE

VR has been researched for decades, with evidence that shows success in many areas of healthcare^{2,3,4}. Research into pain and anxiety has been widespread and work in Paediatrics has shown where and how VR can be deployed⁵. There is growing interest in paediatric VR research with the number of published scientific papers on the topic rising by more than 50% in a single year from 2019 to 2020⁶.

A systematic review and meta-analysis of published works concluded in 2019 that 'Large effect sizes indicate that VR is an effective distraction intervention to reduce pain and anxiety in paediatrics patients undergoing a wide variety of medical procedures⁵.

As the evidence base grows, studies are moving forward into the assessment of actual implementation within healthcare settings. For example, in 2019 a randomised controlled trial was conducted within a hospital emergency department with a sample of over 100 children⁷. This study reported that VR interventions effectively reduced pain, fear and the time taken for procedures⁷. Rescape's mission is to take the findings of research such as this, and deliver them in practical ways today. For a complete up-to-date appraisal of research for the use of VR in reducing Pain and Anxiety request our Paediatrics White Paper.

IS DR.VR® JUNIOR RIGHT FOR ME?

If you work with paediatric patients experiencing pain and/or anxiety, DR.VR® Junior's Virtual Reality Therapy has the potential to be beneficial. Research has shown success in a range of paediatric specialisms and departments including A&E⁷, Phlebotomy⁹, Orthopaedics¹⁰, Pre-elective surgery¹¹, Burns¹², Oncology¹³, Palliative Care¹⁴ and more.



We've been excited to support the use of DR.VR® Junior within our children's departments across A&E and Paediatric Burns. We're looking forward to providing more access to the advantages of VR, as a way of reducing anxiety and pain levels.

Carmel Woolmington, CW+ official charity of Chelsea and Westminster Hospital NHS Foundation



DESIGNED FOR A CLINICAL ENVIRONMENT

Developed as a Class 1 Medical Device, DR.VR® Junior enables quick, easy and monitorable deployment of VR therapy in a healthcare setting.

Benefits of a DR.VR® Junior subscription include:

- Exclusive, high-quality experiences that have been produced to be safe and effective.
- Unique tablet computer interface giving clinicians control of their patient's VR experience.
- Anonymous data collection to demonstrate DR.VR® Junior's efficacy and safe deployment - accessed via your own DR.VR® Data Portal.
- VR Content stored locally, within the system, removing the need for hospital Wi-Fi integration and assuring no quality degradation due to poor internet connection.
- Research proven infection control protocol making it safe to use in a healthcare setting. *(see side panel)*
- Closed system that safeguards children from inappropriate content.
- Upgrades on DR.VR Junior® hardware and new VR content.
- Full technical training and support.

USING DR.VR® JUNIOR SAFELY

Effective Infection control is a major priority for successful deployment of VR in healthcare. DR.VR® Junior uses the latest PICO G2 4K E VR headset, recently redesigned to minimise the risk of cross infection between users.

Rescape has developed a research proven infection control protocol in partnership with Cardiff University, ATiC and University of Wales Trinity Saint David. This protocol protects users and clinicians by killing 99.9% of bacteria and viruses that may be on the equipment. Full training, with video instructions, are supplied and can be accessed on the tablet.^{15,16}

IMMERSIVE THERAPIES MADE BY LEADING VR CREATORS



ESCAPE

Experiences which take paediatric patients on a journey of discovery to new worlds. These highly immersive experiences, including swimming with manta rays or going on a dinosaur safari, are designed to engage the patient and distract from pain and anxiety.

DISTRACT

Distractive and highly immersive games that require the patient to direct the flow of the experience and avoid obstacles in order to score points. These are immersive, interactive pieces of content and are effective for patients experiencing high amounts of pain and/or anxiety.

RELAX

A choice of relaxation spaces set in different serene environments. Users take part in guided breathing exercises featuring relaxing imagery and calming audio. This has the potential to reduce anxiety in adolescent and paediatric patients using evidence-based breathing exercises.



START A VR JOURNEY WITH YOUR PATIENTS TODAY

Would you like to experience the impact DR.VR® Junior can have in your specialism? We're so confident you will see benefits from DR.VR® Junior we offer a service evaluation scheme to allow you to trial before purchase.

There is a short waiting list for this service so please contact us ASAP to complete our questionnaire to help us evaluate your needs.

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DR.VR® JUNIOR TECHNICAL SPECIFICATION

Hardware

- Pico G2 4K Enterprise VR headset
- Samsung Galaxy Tab A 10.1 control tablet
- TP link M7350 4G mobile router
- Foldable stereo headphones and audio cable
- USB charging hub and charging cables
- Transportation tray
- DR.VR charging case
- Sanitary headphone covers (x50)
- Single use lens cleaning wipes (x50)
- Small pack of universal Clinelle wipes



OPTIONAL UPGRADES

- Yi 360 5.7K Hi Resolution Dual Lens VR camera
- Mini camera tripod
- SD Card case and Micro SD Card
- Bespoke VR experiences eg. ward/procedure familiarisation

DR.VR® JUNIOR SOFTWARE

- Relax: 3 x experiences
- Distract: 2 x games
- Escape: 5 x experiences
- Access to personal DR.VR® Data Portal



Registered as a
Medical Device
December 2020



MAKE A HOSPITAL STAY PERSONAL

Add a 360 camera to create your own VR experiences within your hospital, and enable parents to capture content that connects their child to their family and friends:

- Family events in VR for patients (meeting friends, favourite places to visit, simply being at home)
- Hospital, ward or department tours
- Pre-operative experiences

All experiences created with the 360 camera are automatically written to an SD card which can be simply inserted into the headset to view using our unique software. We also offer the ability for Rescape to record professional filmed VR 360 content to be delivered through DR.VR® Junior.



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