
Applications of VR in Hand Rehabilitation

— By William Kaminski —

Introduction

- Pain from traumatic injury is a major issue
 - burn and wound cleaning
 - broken bones
 - phantom limb syndrome
 - muscle therapy
- Excessive pain can cause long term issues
 - chronic pain
 - psychological issues (PTSD)

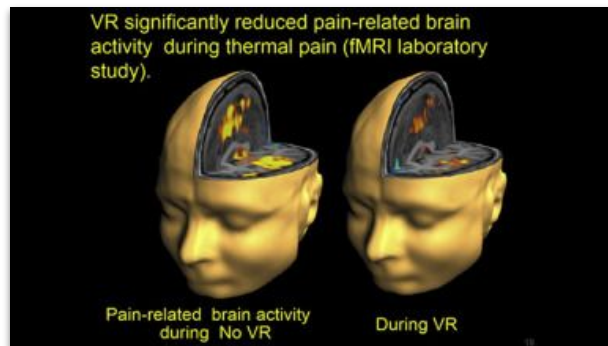
New Treatment: VR assisted Rehabilitation

- Virtual Reality Exercises
- Haptic feedback gloves, smartphones, head mounted displays
- Supplemental to traditional therapy
- Serves as distraction during routine treatments



Why VR?

- Scalable therapy
- Can help to reduce pain
- Reduces psychological strain
- Increases patient engagement
- Tool to measure recovery progress



Too Costly?

Is VR assisted rehabilitation too costly?

Too Costly?

- Cost of VR technology has dropped significantly
- Consumer VR headsets are now mass produced
- Easy to train patients/physicians
- Can reduce long-term healthcare costs

Conclusion

- VR can improve hand rehabilitation
- Can improve patient comfort
- Reduces long-term healthcare costs
- Reduces negative long-term effects on patients
- VR has unexpected applications

References

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