

Inflatable Tissue Elevator/Expander Applications in Hand Surgery

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Tissue expansion is an important reconstructive modality. It has become more widespread, particularly in the fields plastic and general surgery. In many cases, tissue expansion can be said to have revolutionized plastic surgery and it also has many uses in hand surgery. An Inflatable Tissue Elevator/Expander has multiple applications in hand surgery and can be useful to the hand surgeon for dissection, elevation and expansion of tissue, creation of tunnels and spaces for instrumentation and implants, decompression of nerves, lysis of adhesions, mobilization of tissue and soft tissue coverage.

Surgical dissection and the creation of inter-operative space for instrumentation, implants and other uses continue to challenge surgeons. In hand surgery, with a mechanical tissue expander the phenomenon of tissue expansion of the skin and underlying soft tissues is possible where local tissue expands and enlarges in response to tension generated by the increased volume of the expander. Advancements in inflatable balloon materials and technology have made tissue expansion possible in a minimally invasive fashion.

Specialized techniques and instrumentation enable surgeons to perform surgical procedures with smaller incisions and dissection.

Minimally invasive surgery (MIS) has improved many fields of medicine.

Inflatable Tissue Elevator/Expanders can facilitate access and exposure for hand surgery.

This research studies the use of Inflatable Tissue Elevator/Expanders in Hand Surgery including indications, equipment, technique, complications and suggested applications.

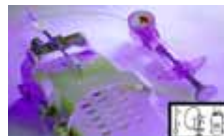
An Inflatable Tissue Elevator/Expander device is similar to a traditional elevator but:

- It features a manually inflatable balloon component at the distal end.
- The balloon is inflated/deflated with saline via a manual inflation syringe system with an integral pressure gauge.



Intended Use

An Inflatable Tissue Elevator/Expander is a surgical tool intended for use as a conventional manual elevator for orthopaedic or general surgery, including use to access the carpal tunnel region during carpal tunnel release procedures.



Tissue mobilization



With balloon technology inflatable tissue elevator/expanders can ease and improve exposure and fixation of fractures

