

"Doc Prop", an innovative surgical chest-supporting stand for surgeons

Published date: Nov. 14, 2014

Technology description

Back and neck pain is a common problem for surgeons working in operating rooms. Surgeons can work many arduous hours while leaning uncomfortably over the operating table with excessive physical exertion. Such operations can put substantial stress on the surgeon's lower back and neck, causing considerable pain, and in some situations require corrective surgery. In addition, it can increase overall surgery time and prolong patients remaining under general anesthesia as the surgeon becomes more fatigued, which may increase the risk of infection. Clearly, solutions are needed for this occupational health problem faced by surgeons. There are surgeon support devices available; however, they are complex, space-consuming, and not easily modifiable for quick adjustments during surgery. Drs. Schechet and Eggers at Baylor College of Medicine developed an innovative surgical chest-supporting/stand device for surgeons, the "Doc Prop". It relieves surgeon back strain by supporting the torso and includes adjustable length to fit different surgeon heights and adjustable angle for optimal comfort. The device attaches to surgical table flat side rails, thus requires no floor space. "Doc Prop" provides a simple, space efficient, comfortable means to fully support the torso of a standing surgeon working over an operating table to reduce fatigue and back/neck pain without compromising range of movement.

Application area

- A 2nd-generation prototype has been developed. The prototype has been evaluated on operating room tables by surgeons in the Texas Medical Center and the design has received good feedback. - Photos of the "Doc Prop" prototype are available under a confidentiality agreement.

Advantages

- A surgeon support device that is easily adjusted in multiple dimensions to provide multiple degrees of freedom and to accommodate surgeons of varying stature and operating technique. - Compact design that attaches to operating table and requires no floor space. - A simple apparatus which is easily draped and cleaned to maintain the appropriate aseptic technique of the operating room. - Economically efficient to manufacture.

Institution

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