

Innovation in surgery.

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Surgical Innovation

To present the area of surgical innovation from a historical approach, incorporating fresh discoveries from technological innovation research. While surgical innovation has a long history, it is still in its infancy as a subject of research. There are just a few academic surgical innovation centres, all of which have emerged in the previous five years. To this time, the discipline has not been properly defined, nor have future opportunities to foster surgical innovation been extensively studied. Surgical innovation is clearly essential to surgical development and has important health policy consequences. In the developing practise of medicine, a procedure of carefully reviewing and supporting surgical innovation may be crucial. A review of the scholarly literature in the field of technological innovation was conducted. Technical, medical, and business sources were used to find articles and books. To provide greater relevance to surgical history, luminaries in surgical invention were interviewed. The notions of technological innovation were then extended to surgical innovation, with the historical example of surgical endoscopy serving as a sample field that comprises millennia of learning and spans various specialities of care.

The history of surgery is mostly made up of specific, well-known surgeon inventors. While individual successes are valued, surgeons as a collective have occasionally stifled vital innovation to the cost of our profession and patients. Surgery, as a clinical specialty, is built on a history of research and recruiting the greatest young minds. To date, surgical innovation has been outstanding but inconsistently supported. Over the previous decade, a corpus of information on technological innovation has been produced, but it has mostly not been applied to surgery. New surgical innovation centres are defining the area and identifying essential features of surgical innovation promotion. It is our obligation as a profession to seek to comprehend innovation in surgery, develop, translate, and market advancements to solve critical clinical concerns, and consistently and logically support the future of our profession.

Over the previous decade, research and publishing in the business literature have largely established the notions and principles of innovation. These innovations principles may now be applied to other professions. Surgery, being one of the oldest and most renowned specialties founded on continual innovation, has a distinct culture and a long history. While certain areas of study in the wide subject of innovation are immediately applicable to surgery, many distinctive characteristics of our profession and practise need specialised consideration. As such, it may be the surgeon's obligation to characterise and research innovation as it relates to our area.

The intelligent and humanitarian surgeon's entrance into the gut, chest, and brain shall be permanently barred." So thought Sir John Ericksen, Queen Victoria's Surgeon Extraordinaire in 1837. Today, our surgeon colleagues will undertake an average

of 80,000 procedures every day, many of which will be in the belly, chest, or brain. There are various main categories of innovations that have brought us from then to now.

While surgical invention has a long history, the field and study of surgical innovation are young. Ten peer-reviewed articles concentrating particularly on surgical innovation have been published in the last ten years, which is five times the total amount of preceding publications. An increasing number of surgical executives believe that innovation may be the only way to retain the quality of their profession. Attempts have been undertaken to date to comprehensively analyse wider themes in technological innovation as they pertain to surgery. We attempted to relate contemporary notions in the broadest framework of technology innovation to the field of surgical innovation within the context of surgical history, notably that of surgical endoscopy. Each section of this article will outline an aspect of innovation, followed by historical sources to back it up.

The purpose of this essay is to start a discussion on surgical innovation practise and policy that is based on developing principles in technological innovation research. Current ideas will be reviewed, and new words and concepts that may be useful to the study of surgical innovation as the subject evolves will be introduced.

A full assessment of surgical innovation would include a discussion of ethics, economics, legislation, and education, all of which are essential considerations. However, in order to keep the focus of this article on fundamental concepts of how innovation is defined, assessed, critiqued, and encouraged, those discussions will be left for future communications, and this manuscript will focus on fundamental concepts of how innovation is defined, assessed, critiqued, and encouraged.

The act of presenting something new or employing a new concept or approach is referred to as innovation. In certain cases, it is used interchangeably with invention, while innovation is more properly defined as anything imagined or mentally produced. Notably, no invention or application is totally novel, as no innovator works in a vacuum. All definitions of innovation include fresh ideas as well as an act of usage or practise. The combination of fresh ideas and hands-on application is also a key concept of surgery, explaining in part the historical success of surgeons as innovators and the advancement that their invention brought. These new ideas might take the shape of technology, method, or a mix of the two.

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