

SURGICAL Urology



The idea of looking inside the body using a tube inserted through a small incision has been around since the time of Hippocrates, but it was the innovations of physicist Harold Hopkins that transformed it into an invaluable surgical technique.

Shortly after the creation of the NHS, Hopkins invented the rod lens system – a massively improved version of the conventional telescope used for looking inside the body. Soon afterwards he invented the fibre optic cable, which allowed high intensity “cold” light to be projected into body cavities from an external light source. Previously, doctors had used tiny halogen bulbs on the end of the telescopes, which were relatively dim and carried a risk of burning the patient.

Initially used mainly in Urology, Hopkins’ devices were soon adopted by other specialties, creating a whole new branch of surgery. “Keyhole” or “minimally invasive” surgery allows surgeons to perform diagnoses and complex procedures with minimal risk and trauma to the patient. Its impact has been so dramatic that today many surgeons rank the rod lens system and fibre optic light source as one of the most important medical developments of the 20th century.

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