

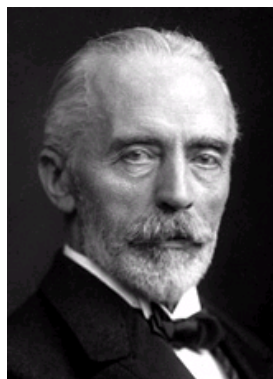


Medicine



**Theodor Kocher**  
The Nobel Prize in Physiology or Medicine 1909

Biography



Theodor Kocher was born on August 25, 1841, at Berne. His father, a Chief-Engineer, was a very keen worker and kept him constantly at work. The influence of a devoted mother and later the loving care of a self-sacrificing wife enabled him to pass without interruption through the continuous strait of secondary school and University, and he obtained his doctorate in 1865. His teachers of surgery were Demme, Lücke, Billroth, and Langenbeck. On the warm recommendation of both the latter he followed Lücke (who had been called to Strassburg) as Ordinary Professor of Surgery and Director of the University Surgical Clinic at Berne in 1872 and remained in this post in spite of several invitations to foreign universities. As Lücke's assistant and as «Privat-dozent» from 1866 onwards he published experimental work on haemostasis (by torsion of the arteries) in Langenbeck's *Archiv*, Vol. II, with which Billroth




was especially pleased; and by anatomical investigations and studies of pathological anatomy he discovered a new method for the reduction of dislocations of the shoulder, which was soon accepted and used as the simplest and surest method of rectifying not only recent, but also old dislocations.

When Kocher began his surgical activities the transition from the septic to the antiseptic treatment of wounds had been completed and Kocher worked for the latter with all his energies because of its great importance. Then arose a series of works on the antiseptic treatment of wounds with weak chlorine solutions, the Listerian treatment of ovariectomies (1875), the preparation of antiseptic catgut and the simplest method of obtaining healing of wounds without drainage tubes, on conditions governing healing by first intention, and on Lister's wound dressings.

The surgical clinic in Berne was for a long time the centre of attraction for medical men who favoured the antiseptic treatment of wounds and wished to follow it. Later Kocher was one of the first to go over to pure asepsis about which he had the best opportunities to learn through his collaboration with Tavel, whose bacteriological studies on infective processes he sought to advance. From this work proceeded the second edition of *Vorlesungen über chirurgische Infektionskrankheiten* (Lectures on surgical infectious diseases) by Kocher and Tavel, Basel, 1892, and Jena, 1900.

Because Kocher had also to give courses of instruction to military doctors, it was necessary to work experimentally on gunshot wounds. Investigation of this subject produced significant contributions to the theory of the explosive effect of missiles, and Kocher with von Schjering produced the most extensive research on and the basis of the modern ideas of the mode of action of small calibre missiles with high initial velocity. These investigations led to numerous small contributions to the journals for Swiss physicians, a lecture to the general session of the International Medical Congress in Rome in April 1874 on the improvement of projectiles from the humane point of view, and two larger works: *Über Schusswunden* (On gunshot wounds), 1880, and *Die Lehre von den Schusswunden durch Kleinkalibergeschosse* (The theory of gunshot wounds due to projectiles of small calibre), 1895.

Among Kocher's other more important works those on acute osteomyelitis (1878) and the theory of strangulated hernia (an experimental and clinical study, 1877) may be mentioned. In this study, on the basis of a large number of experiments, a new theory of strangulation of hernia was founded called the «dilation theory» which also had great significance for ileus. He published his method for the radical operation for hernia. A larger work was on hernia in infancy in Gerhardt's Handbook (1880). Apart from hernias, Kocher busied himself very much with the surgery of the abdominal organs. In *Magenresektion* (Resection of the stomach) he described a new procedure: pylorotomy with subsequent gastroduodenostomy. In *Excisio recti* (Excision of the rectum) preparatory excision of the coccyx was introduced, which had been initiated by Kraske, and Kocher took this step further and also removed a piece of the sacrum (1874). Other works were on the radical cure of cancer, the surgical treatment of gastric complaints (1909). In *Choledocho-Duodenostomia interna* (Internal choledocho-duodenostomy) he established the procedure for excision of gall stones from the lowest part of the bile duct. In *Mobilisierung des Duodenum* (Mobilization of the duodenum) he greatly advanced all the operations affecting the duodenum. With Dr. Matti he wrote *Hundert Operationen an den Gallenwegen* (A hundred operations on the bile ducts): this improved earlier surgical treatment of gall stones and simplified them in the form of ideal cholecystotomy. Other

-  Printer Friendly
-  Comments & Questions
-  Tell a Friend

The 1909 Prize in:

Medicine


Prev. year Next year


The Nobel Prize in Physiology or Medicine 1909


Presentation Speech


- Theodor Kocher
- Biography
- Nobel Lecture
- Banquet Speech

Read

 The article 'Emil Theodor Kocher'

 All Medicine Nobel Laureates

 Ask this year's Nobel Laureates a question

 Explore the Medicine games!

larger works dealt with ileus and with diseases of the male sexual organs, injuries of the vertebral column and fractures. Then followed *Zur Kenntnis der traumatischen Epilepsie* (On our knowledge of traumatic epilepsies ) and *Über einige Bedingungen zur Operativen Heilung der Epilepsie* (On some conditions for the operative cure of epilepsy), and papers on injuries and concussion of the brain and trepanning. He devised a new treatment for «pes varus» and published a well-illustrated work on phosphorus necrosis and another on coxa vara.

His *Chirurgische Operationslehre* (Theory on surgical operations) reached six editions and was translated into most modern languages. It described many operations, mostly in abdominal surgery and the surgery of joints. His book *Erkrankungen der Schilddrüse* (Diseases of the thyroid gland ) discussed the etiology, symptology and treatment of goitres. His new ideas on the physiology and pathology of the thyroid gland caused controversy.

He and his pupils also wrote several papers on various aspects of cretinism and various aspects of goitre.

Kocher was an honorary member of numerous academies and medical societies, e.g. the German Surgical Society. He was an Honorary Fellow of the Royal College of Surgeons; Ll.D. Edinburgh University; Honorary Member of the Royal Society of Sciences, Uppsala; Honorary Member of the American Surgical Society; of the New York Academy of Medicine and the College of Physicians, Philadelphia; the Imperial Military Medical Academy, St. Petersburg; the Academy of Medicine, Turin; the Imperial Medical Society of Constantinople; the Royal Medical Society of Vienna; Royal Medico-Surgical Society, London; the London Medical Society; the London Chemical Society; the Medical Society of Finland; and various societies in Milwaukee, Dresden, Leipzig and Erlangen. He was a Corresponding Member of the Surgical Society of Paris and of the Royal Society of Medical and Natural Sciences of Brussels; of the Belgian Academy of Medicine; the German Society of Neurologists and of the Hufeland Society of Berlin; Honorary M.D. of the Free University of Brussels. In 1902 he was President of the German Society of Surgeons in Berlin and President of the First International Surgical Congress, 1905, in Brussels.

In 1909 he was awarded the Nobel Prize for his work on the thyroid gland. Three years later he donated to his University the sum of 200,000 Swiss francs for a Research Institute in Biology.

Kocher married Marie Witchi (1851-1921). They had three sons, the eldest of whom, Albert (1872-1941) became Assistant Professor of Surgery and gave his father considerable help in his work.

Theodor Kocher died at Berne on July 27, 1917.

From *Nobel Lectures, Physiology or Medicine 1901-1921*, Elsevier Publishing Company, Amsterdam, 1967

This autobiography/biography was written at the time of the award and first published in the book series *Les Prix Nobel*. It was later edited and republished in *Nobel Lectures*. To cite this document, always state the source as shown above.

Copyright © The Nobel Foundation 1909