

# Yaroslav Yosypovych Kryzhanovskiy — the path of a doctor, scientist, and educator

This article examines the life and professional career of Yaroslav Yosypovych Kryzhanovskiy, an eminent Ukrainian surgeon, orthopaedic traumatologist, scientist, and educator. It traces his life journey from childhood in a peasant family in the Ternopil region to his appointment as professor and head of the department at Bogomolets Kyiv Medical Institute. The article analyses his academic training, early medical practice, and organisational initiatives, with particular focus on the development of urological services and his teaching activities. Considerable attention is devoted to his scientific achievements, including the defence of his candidate and doctoral theses, introduction of new surgical methods for treating musculoskeletal injuries and diseases, and his inventive contributions. The article highlights the scientist's impact on military field surgery, postgraduate medical education, and the training of scientific personnel. His efforts to improve the educational process, establish specialised surgical centres, and develop a scientific school are also emphasised. The article concludes by underscoring Y. Y. Kryzhanovskiy's significant contributions to Ukrainian medicine, surgery, and medical education.



Yaroslav Yosypovych Kryzhanovskiy was born on 20 July 1932 in Buchach, Ternopil Voivodeship, Republic of Poland (now Chortkiv Raion, Ternopil Oblast), into a family of hard-working peasants. His parents played a key role in shaping his character, instilling in him a sense of humanity, national dignity, integrity, and hard work. His childhood and adolescence coincided with the Second World War and the difficult post-war period, when cruelty and death reigned. Whilst at school, he studied diligently and showed aptitude for the exact sciences: mathematics, physics, and chemistry, although he had no particular favourite subjects.

Yaroslav engaged in after-school activities, including chess, fishing, swimming, skiing, and horse riding. From an early age, he demonstrated strong will, determination, and emotional balance.

Kryzhanovskiy's decision to pursue his future profession was influenced by his father's serious illness in 1946. Frequent hospital visits allowed him to observe doctors at work. With youthful naivety, interpreting these experiences through the lens of mathematics, he concluded that diagnosing a disease resembled solving a mathematical problem with many unknowns. He excelled academically, graduating with top marks except for two Bs – in Ukrainian and Russian. After finishing school, Yaroslav enrolled at the Stanislav State Medical Institute (now Ivano-Frankivsk National Medical University).

After graduating with honours from the medical institute in 1955, Yaroslav Yosypovych worked as a surgical resident at an inter-district hospital for six years. He later obtained a further qualification in urology and initiated the establishment of the urology department. Under Kryzhanovskiy's leadership, the polyclinic became recognised as one of the most well-organised in the Ternopil region, with strong material support for diagnostic and treatment processes. The range of medical services expanded considerably, and the quality of medical check-ups for patients, pregnant women, and children improved. His professional growth was fostered by a passion for literature and practical experience in the leading clinics of that time. Concurrently, Yaroslav Yosypovych began his teaching career as a lecturer at Buchach Medical College, alongside his clinical responsibilities.

In 1961, Kryzhanovsky enrolled in postgraduate studies at the Department of Orthopaedics and Traumatology at Bogomolets National Medical University in Kyiv.

Yaroslav Yosypovych completed his postgraduate studies ahead of schedule. Within two years, he authored and defended his PhD thesis, supervised by Professor O. G. Yeletskyi, on the topic «Surgical treatment of congenital hip dislocation in adolescents and adults».

Professor A. H. Ozerov, Head of the Department of Traumatology and Orthopaedics and a distinguished student of Professor O. G. Yeletskyi, offered Yaroslav Yosypovych a position as an assistant in the Department.

In addition to his clinical work, Yaroslav Yosypovych actively contributed to the training of clinical specialists and participated in scientific and educational activities.

In 1970, Kryzhanovskyi was appointed associate professor at the Department of Traumatology and Orthopaedics following a competitive selection process. During that period, he undertook substantial independent clinical work, which gave a major impetus to his inventive and scientific pursuits. He rapidly achieved a high level of teaching proficiency, enhanced his practical skills, and initiated work on his doctoral thesis. In 1975, Yaroslav Yosypovych graduated from the Institute of Patent Law.

In 1979, Kryzhanovskyi defended his doctoral thesis, «Surgical treatment of fractures and pseudoarthrosis of the femoral neck», and was awarded the degree of Doctor of Medical Sciences. The day before the preliminary defence, his mentor, Professor A. H. Ozerov, passed away unexpectedly. During that difficult time, Professor Ye. P. Pidrushnyak, a State Prize laureate, outstanding scientist, and gerontologist, who was first in Ukraine to study age-related changes in the human musculoskeletal system, their prevention and treatment, provided significant support. While completing his doctoral research, Kryzhanovskyi developed and implemented a fixation device for fractures of the femoral neck in clinical practice.

In 1981, Kryzhanovskyi was appointed associate professor at the Department of Surgery, Faculty of Public Health and Hygiene, with a course in military field surgery at O. O. Bogomolets Kyiv Medical Institute. He was promoted to professor in 1985. In 1994, he was appointed Head of the Department of General Surgery No. 2, with a course in military field surgery, following a competitive selection process, a position he held until 2011. That same year, Yaroslav Yosypovych was elected as an Academician of the Academy of Higher Education of Ukraine.

In 1987, Kryzhanovskyi was appointed Dean of Internships. He pioneered the organization of intern training across all departments of the National Medical University. Yaroslav Yosypovych also introduced logbooks for documenting students' practical skills, implemented a three-stage assessment system for practical competencies, and established surveys for graduates and interns.

In 1991, Kryzhanovskyi was awarded the title of «Honoured Worker of Public Education of Ukraine».

Yaroslav Yosypovych developed innovative techniques in reconstructive and restorative surgery to address a range of diseases and injuries, resulting in 14 inventions, 9 patents for surgical methods, and a monograph. His scientific achievements are documented in over 250 publications. These techniques are widely used in practical traumatology. Under his supervision, nine candidate and two doctoral theses were defended, and he trained numerous highly qualified practising doctors. He received two second-class diplomas for inventions at the exhibition of advanced experience in Ukraine. Kryzhanovskyi also initiated and organised the establishment of the City Centre for Hip Surgery and the Centre for Hand Surgery at Kyiv City Clinical Hospital No 3.

Professor Kryzhanovskyi received comprehensive surgical training as a general surgeon, urologist, and orthopaedic traumatologist, acquiring expertise in military field surgery at military hospitals in the Turkmen and Kyiv Military Districts. He successfully organised high-standard military field surgery instruction at O. O. Bogomolets Kyiv Medical Institute. He also participated in the establishment of the Military Medical Academy in Ukraine by developing and reviewing curricula and programmes. Yaroslav Yosypovych made a significant contribution to the teaching of general surgery. His lectures consistently generated considerable interest among students. Professor Kryzhanovskyi's presentations at scientific and practical conferences and congresses were always recognized for originality and ability to engage audiences and satisfy their scientific interests.

As secretary of the Central Methodological Commission and dean of the internship programme, Yaroslav Yosypovych significantly improved the teaching process and postgraduate education. As an experienced patent expert, he helped dozens of lecturers obtain certificates for their inventions.

Professor Kryzhanovskyi based his relationships on selflessness, respect, and reliability. His life's goal was to serve the state, the people, and the advancement of science. He valued hard work, high

standards, responsibility, reliability, persistence, mutual understanding, and compassion in others, and he did not tolerate meanness, cowardice, or betrayal.

Yaroslav Yosypovych used to say that a doctor must love their patients and do their utmost for their health, just as they would for themselves or their own family. He also considered it essential to treat colleagues with respect.

Professor Kryzhanovskiy is remembered by students, interns, postgraduates, practising doctors, and colleagues as an engaging conversationalist, a man of broad and profound views and interests.

After retiring from active professional life in 2014, Yaroslav Yosypovych continued to take an interest in the affairs of his home department and did not abandon his public work. He shared insightful thoughts on the training of medical specialists in the newspaper «Your Health». His interviews were published in the newspaper «Evening Kyiv».

Reflecting on the future of the medical sector in Ukraine, Professor Kryzhanovskiy predicted a bright future, as he believed in the hard-working and talented Ukrainian people.

Yaroslav Yosypovych's scientific works were published in numerous scientific and practical journals: «Orthopaedics, Traumatology and Prosthetics», «Problems of Gerontology and Geriatrics in Orthopaedics and Traumatology», «Bukovyna Medical Bulletin», «Bulletin of Surgery», «Issues of Medical Supervision and Therapeutic Physical Culture», «Clinical Surgery», and others.

Y. Y. Kryzhanovskiy passed away on 2 October 2023 at the age of 92. He was buried in the municipal cemetery of Buchach.

The memory of Professor Kryzhanovskiy lives on through his academic school and numerous students. His contribution to medicine is an integral part of the history of Ukrainian surgery and traumatology.

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## Ярослав Йосипович Крижановський — шлях лікаря, науковця та педагога

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Статтю присвячено життю та професійній діяльності видатного українського хірурга, ортопеда-травматолога, науковця й педагога Ярослава Йосиповича Крижановського. Висвітлено його життєвий шлях від дитинства в селянській родині на Тернопільщині до завідувача кафедри Київського медичного інституту імені О. О. Богомольця. Проаналізовано роки навчання, ранньої лікарської практики й організаційної діяльності, зокрема розвиток урологічної служби та педагогічну роботу. Значну увагу приділено його науковій діяльності, зокрема розробці нових методик хірургічного лікування травм і захворювань опорно-рухового апарату, а також винахідницькій роботі. Висвітлено внесок ученого у розвиток військово-польової хірургії, післядипломної медичної освіти та підготовку наукових кадрів, його роль у вдосконаленні навчального процесу, створенні спеціалізованих хірургічних центрів і формуванні наукової школи. Зроблено висновок про вагомий внесок Я. Й. Крижановського в розвиток української медицини, хірургії та медичної освіти.