

## Social Hero

### **Ilizarov Gavriil Abramovich** by Tayurskaya Kate and Osipova Nadia

Ilizarov Gavriil was a brilliant scientist, a talented organizer who created a new branch in traumatology and orthopaedics.

Ilizarov Gavriil was born in 1921 in a peasant family. The family was large: there were three sisters and three brothers. The life was difficult. The children often suffered from hunger. There was a need to earn for living and Gavriil grazed the cattle of the peasants from his village. He went to school when he was 11 but his thirst for knowledge was so great that he quickly passed the programme of the first missed school years.

When a child Gavriil was miraculously cured by a local doctor's assistant. This fact predetermined his choice after finishing school. He entered a Medical Institute. After graduation from the Medical Institute in 1944 the young doctor was sent to the Kurgan Region to work in a country hospital.

In 1950 Ilizarov moved to Kurgan to work at the regional hospital. He had already much practical experience and wide medical interests but his craving for traumatology and orthopaedics grew more and stronger. Hundreds of Red Army soldiers with sequelae of gunshot bone injuries that had been unsuccessfully treated before were consulted by him at that time. During that period Ilizarov came to a conclusion that the treatment of patients with limb bone fractures was unnaturally long. That depended on the methods of treatment used during those years.

In 1951 Gavriil Ilizarov proposed his own, new way for union of bone fractures using an apparatus invented by him in 1950. Ilizarov method is a system in which bone is fixed with thin wires and rings. Having achieved a noticeable reduction of the periods of fracture treatment, Ilizarov gradually widened the range of his apparatus usage, and by 1952 he had performed a 12.3 centimeter limb lengthening with the help of his device. It was the first world's report on such a great amount of a limb elongation.



Extremity lengthening and reconstruction techniques are used for filling bone defects and correcting and lengthening bones with deformity. These procedures can be applied to pediatric or adult patients (3-70 years) with congenital disease, bone loss or traumatic limb length inequality. The procedure for extremity lengthening and deformity correction is carried out according to the principles of distraction osteogenesis. This concept was a revolution which destroyed the historical view that bone cannot be lengthened. In this technique, bone is cut with surgery and lengthened gradually; new bone formation (osteogenesis) is observed in lengthening site. Bone can be lengthened up to 15%-100% of its original length with this method.



Years passed. Ilizarov's talent, will and activities created the Institute that got the name of the Kurgan Research Institute for Experimental and Clinical Orthopaedics and Traumatology where both clinical and experimental research was carried out.



Since 1992 Ilizarov's method has been successfully implemented into treatment of domestic and wild animals sustaining injuries and diseases of bones, joints and the spine.



Gavriil Ilizarov was a great personality of his time. His effective techniques and wonderful outcomes of the treatment of orthopaedic patients, who represented almost the entire world, were the reasons of his popularity.





Svetlana Ilizarova is his daughter. She was trained by her father at the Limb Lengthening and Deformity Correction at the Center of Reconstructive Orthopaedics and Trauma in Kurgan, Siberia. She is currently a Medical Doctor practicing in the United States.



Professor Ilizarov won many state awards and titles of his countries and other countries. But one award was special. It is the **Order of the Smile**. The Order of the Smile was created by a nine-year old girl from Poland, Ewa Chrobak. Using a plate as a template, she drew a sun, and added uneven rays of light. The medal – which is a badge representing a smiling sun – is awarded in Poland by the International Chapter of the Order of the Smile in Warsaw. All candidates chosen by children become Laureates by the Chapter. The knight or the dame of the Order of the Smile is an adult, whose work is **exceptional**. The members of the Chapter include representatives from different countries: favourite children’s writers, painters, actors, doctors. In the spring of 1978 Professor Gavriil Ilizarov was awarded with the Order of the Smile.

Professor Ilizarov died on July, 24 1992. He was a very happy man because his work brought healing and happiness to sick people.

Booklets of the Russian Scientific Centre “Restorative Traumatology and Orthopaedic”  
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