



Juvenil[®]

– the original nutritional supplement –

The extracts from herbs or animal tissues have been utilized as a remedy in folk medicine already long time ago. Their utilization originated from empirical experience that a better or worse specified products are beneficial to human health. Usually, they had been using in the form of a tea, a juice or a cream. Recently, when dominate the west type of medical care, such preparations are sometimes criticized that their composition is not precisely defined. However, the utilization of different tissue extracts as nutritional supplements might be very useful at a time when people are exposed to the stress or to commercially produced diets. The modern lifestyle is a test of the body's resistance and, in such situation, the supplementation of organisms with nutritional supplements, which positively affects human immunity or allows full regeneration is highly appreciated.

Juvenil contains whole spectrum of free amino acids, small oligopeptides of molecular weight up to 10 kDa, different nucleotides, some minerals, and low amount of phospholipids. All these molecules are natural components and completely harmless to the human body. A substantial number of these molecules are biologically active; others are a source of readily available nutrition.

Juvenil has been broadly tested to standardization of production, harmlessness, microbial contamination, and biological activity in model animal system and also on human volunteers. Some data originated from clinical testing. Majority data originated from Czechoslovak institutions, other data were obtained from health and research institutions in the former Soviet Union and Poland. Collectively, all these data document the total harmlessness for human beings. Also the hygienic-toxicological evaluation, realized at the Institute of Hygiene and Epidemiology in Prague, disclosed that experimental animals (white rats) under the Juvenil drinking regime had no changes in the behavior, their weight gains, and mortality based on comparison with untreated control group. Motoric coordination, inertia of grip, and endurance of performance of tested animals, all the parameters of toxicological effect of substances, demonstrated the safety of Juvenil preparation utilization. Histological examination of white rat liver and spleen showed no differences between the control and the experimental groups in the structure of the tested tissues.

Testing of human volunteers (realized at the Institute of Hygiene and Epidemiology in Prague) further demonstrated harmlessness of Juvenil for humans. The students (girls in age between 20.7 and 23.9 years) were subjected to a test course during which the Juvenil was administered every morning for 14 days. The basic parameters of innate immunity (phagocytic activity of neutrophils, the levels of lysozyme, transferrin, and C3 and C4 complement components in the sera), were better after the test. The control of somatometric parameters revealed an increased appetite in the test set, but it did not reflect much on the increased weight and amount of subcutaneous fat of the students. Both systolic and diastolic blood pressures were favorably reduced, accompanied by a slight increase in heart rate. Students who received Juvenil have improved the range of immediate and short-term memory, and increased psychomotorial performance. The tested parameters of heart resistance, fatigue and functional



insufficiency index were also favorably influenced by Juvenil. Finally, the biochemical tests of blood samples taken before and after the Juvenile cure did not show any significant changes.

The data from testing of Juvenil on human volunteers collectively demonstrated the health safety for human use. Juvenil-type products are considered as regenerators of weakened or impaired biological functions. For this reason, the functional positive effects of Juvenil on a totally healthy human population will not express dizzy effects. However, Juvenil and the analogical preparations will improve preparedness for adverse effects as are psychological stresses or infections. Sufficient evidence had been accumulated over the long period of Juvenil availability for its biological efficacy and benefit to the human body.

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The review of data from original documents